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ORIGINAL LECTURES.

LECTURES
ON THE
PROGRESS OF SURGERY DURING THE PRESENT CENTURY.

DELIVERED AT
The Royal College of Surgeons,
By Professor FERGUSSON.

LECTURE IV.—MONDAY, JUNE 13, 1864.

On Lithotomy in Children.

MR. PRESIDENT AND GENTLEMEN,—Most of the interest associated with lithotomy has reference to the operation in the adult. It appears to me that the difficulties and dangers of this operation have been estimated more from the results than from the actual process. Hence, as lithotomy is known to be comparatively *safe*, when performed on subjects at any age prior to puberty, it has been deemed equally *easy* of performance, and a wide-spread notion prevails that in children it is so readily effected that little study, thought, or care have been bestowed upon it. My own experience has led me to think that Surgeons have treated this subject too lightly; and, at the risk of being thought to have entered on ground already thoroughly exhausted, I shall venture to step freshly upon it, with the conviction that, although I may state nothing which is not already well-known to the experienced lithotomist, I may do much good to beginners by directing attention to certain points which have heretofore been scarcely, if at all, referred to by clinical teachers or Surgical authors. It has been computed that about a third of those on whom lithotomy has been performed have been under the age of puberty, and the average mortality in such cases is about one in thirty. Comparing this result with that of the operation on the adult, the measure of success is large indeed; and hence, doubtless, has arisen the common impression that the mechanical process in the young is simple in all respects. I am freely convinced, however, that a great mistake prevails on this point, and that as much care and skill are required on the part of the Surgeon in operating on young subjects as on the adult. I should say even more; for in my own personal experience I have often felt more doubtful during the steps of the proceeding upon children than when dealing with the full-grown man.

The history of lithotomy shows clearly that when the operation is satisfactorily accomplished in children, its success is almost certain; yet we often hear of difficulties and great mishaps on young subjects, and in particular we often hear of the operation being abandoned for a time, or the cutting having been performed when a stone has in reality not been found. If these matters had been more referred to than heretofore by authors, operators, and teachers, we should, I imagine, have heard more of the difficulties and fatality of lithotomy in young subjects than some people think of, and, at any rate, a more wholesome idea regarding the subject would have prevailed than in my opinion prevails at the present time.

These remarks have been suggested by what I have seen, read, and heard of in the practice of others, during the time I have been in the Profession, as well as by my own personal experience. In my own early days of study I was struck and excited by the circumstance that a Surgeon of repute had cut into the bladder to extract a stone, when none could be found, and the case was considered an example of error in diagnosis. The patient recovered from the wound, but the symptoms of stone continued, and in about three months after another Surgeon extracted a stone of considerable size from the bladder, by the ordinary operation of lithotomy. Another case of a like kind came under my cognisance about the same time, and the impression on my mind was strong that in neither instance had the bladder been reached in the first operation. In early life I assisted an experienced operator in this proceeding on the adult. Having, as he supposed, cut into the bladder, the stone had not been touched. Here I had an opportunity of examining the wound, and, a suggestion having been made, that the bladder had not been opened, the operator with remarkable dexterity cut further in the right direction, opened the viscus, and with great rapidity extracted the stone, which he had previously detected by sounding. In this instance I had no doubt whatever that the Surgeon had not originally cut deep enough, but had made a space, with the forefinger of his left hand, between the pubis and neck of the bladder, which he had for a time mistaken for the bladder. These and other similar instances which occasionally came to my knowledge gave me a strong impression that in those cases where Surgeons were stated to have cut for stone when one had not been present they had probably not reached the bladder at all. In the course of time this impression has become greatly strengthened, and in giving in this lecture greater currency than heretofore to the frequent clinical observations which I have made on this subject, I feel assured that my experience and views will not be lost upon those who are earnest in the study of this most interesting operation.

As a beginner, I was taught, or had imbibed the idea, that lithotomy in children was simple in execution; and when I began to operate on the living body the impression was strengthened for a time. I had seen the incisions effected with admirable dexterity by means of a common scalpel, and in my first operation I used a similar instrument. The proceeding seemed simple in the extreme, and I adhered to the same method on subsequent occasions, with most satisfactory impressions, until unexpectedly a difficulty arose, which produced an effect on my mind that time cannot efface. After many operations on the adult and on the young subject, I had in a manner forgotten my early knowledge of the position of the bladder in children, and not only was content with a simple scalpel to make the incisions, but had in a manner got careless about some matters of importance. On March 17, 1849, I had to operate on a boy, 3 years of age, at King's College Hospital. I used a scalpel, as I had often done before, and made the ordinary incisions for lateral lithotomy. A grooved staff, with a large curve, was the director into the bladder. In making the deepest part of the incision I purposely used the cutting instrument as lightly as possible, with a view to open only a part of the membranous portion of the urethra, and notch the prostate and neck of the bladder. These objects being effected, the point of the fore-finger of my left hand was, as usual, placed on the staff, and pushed gently towards the bladder. The finger went on, but I was aware that it had not got between the urethra and the staff. With an insinuating movement, most to be appreciated by the lithotomist, who, as I do, professedly makes a small incision in this locality, I endeavoured and hoped to get its point, as usual, into the urethra and neck of the bladder; but here I felt conscious that I had failed. I was aware that the finger was getting deeper, as regarded the depth of the perineum, but that I was not materially nearer the bladder. I had felt a considerable space at the point of my finger, and was convinced that the upper part of the membranous portion of the urethra, as well as the sides above the wound, had given way to the pressure of the point of the finger, and that now, as the latter was getting deeper into the wound, I was only pushing the prostate gland and neck of the bladder inwards and upwards. These parts seemed to recede before the smallest imaginable force, whilst I felt that I could, in a manner, make any amount of space round the bare part of the staff. I had no difficulty in distinguishing between the surface of this space and that of the mucous membrane of the bladder. Moreover, I was aware that I had never crossed that narrow neck which is always felt as the finger passes into the bladder, when a limited incision is made. An impression came over me, that I was about to fail in getting into the bladder, and I had an idea that unless I could open the urethra just in front of the prostate more freely, I should possibly never reach the stone. Any additional use of the fore-finger of the left hand only endangered the further separation of the prostate and neck of the bladder from the pubis; and I was conscious that the only safety lay in cutting a little more freely on the groove of the staff. This I effected with great care and caution, and then I could appreciate the passage of the finger as usual through the prostate and neck of the bladder. The stone was thereafter easily touched and removed; but, when all was finished, I was forcibly impressed with the idea that I had nearly failed in the performance of the operation, and an onlooker might not have been able to appreciate the cause of this emergency; but I was myself conscious that I had not reached the bladder, even at a time when the finger seemed deep in the perineum. Happily, the patient recovered, although slowly, in consequence of the lacerated character of the wound, and the formation of an abscess in the left testicle, both of which I have seen where there has not been the same kind of trouble. You may guess the relief I felt as soon as I was

aware the operation was completed, when I show you the size of the stone of which I was in pursuit at the time. Until this, I confess that I never fully appreciated the dangers and the difficulties of lithotomy in young subjects. I had read of the slipping of the gorget in this operation, and become acquainted with the fact that fatal incisions had often been made, and the supposed mistake of the Surgeon in cutting where no stone was present; but now a new idea flashed on my mind, and from that time I have never lost sight of it. I have never performed lithotomy in children in public without referring to it. I have seen since that time that the subject has been alluded to by certain Surgical authors; but I am not aware that it had ever been specially noticed before. From all my experience I feel justified in stating my conviction that most of the cases heretofore related as instances, where the incisions for lithotomy have been made, and a stone has not been present, have been examples where the Surgeon has failed to reach the bladder from the cause just narrated.

Since I have been impressed with these views, I have known of cases where, death having followed the incisions, the stone has been found in the bladder at a post-mortem inspection; and I have also heard of others where the stone has been successfully extracted at a second operation, after the first wound had been allowed to heal. The mishap is much more likely to occur than most Surgeons imagine; and my opinion is founded on the following grounds. The size of the wound is necessarily limited, so that the fore-finger of the left hand in a manner fills it. The perineum is much deeper in proportion in the child than in the adult, as has been well represented recently by my friend, Mr. Wood, who, in order to illustrate some features about the male pelvis, has taken dimensions such as you see placed on paper here; and he has represented forcibly how the bladder in the young subject is so much more of an abdominal than a pelvic organ, as we represent it to be in the adult, and accordingly it must be considered deeper in young children than in the adult, and in addition, all the material is loose, lax, and often loaded with fat.

The circumstance that the bladder is more abdominal than pelvic in early life has often been overlooked. The slenderness of the membranous portion of the urethra and the narrowness of the tube both contribute to the facility with which the circumference may be torn through; and the small size of the prostate, rendering its discrimination difficult, all constitute peculiarities which are not so conspicuous in the adult. In the latter there is room, development, bulk, mass, and a final wall of prostate and bladder, which may be all said to be deficient in the child. From these data I have long since come to the conclusion, and have long taught in Hospital lectures, that lithotomy in children, whilst comparatively free from danger, as regards the final results, is by no means so free from difficulty, or the risk of failure. The safety of result has been mistaken for simplicity of execution. But I hope that what I have now stated may be a warning to the young lithotomist. It may naturally be asked, how the dangers referred to may be avoided. My answer is, that more care than is usually given should be devoted to the operation, and that as the Surgeon cuts into the membranous portion of the urethra and neck of the bladder, he should never push the point of his forefinger onwards, unless he feels certain that he has it between the staff and the wound, or the staff and the urethra, as some might say.

To show that I do not now speak without a fair share of experience, I take the liberty of stating, that of 159 patients on whom I have performed lithotomy, fifty have been under the age of puberty—that is, under fifteen. Experience, instead of diminishing my anxiety on such occasions, has rather increased it, for as numbers have enlarged I have been more and more impressed with the views above given. Of the fifty cases I have lost two. One was the third child I operated on, the other was the forty-eighth; so that of the whole number I cut consecutively forty-four without losing a case, or forty-seven losing only one. Of the two lost, one died on the twelfth day from unhealthy inflammation, the other on the second day from hæmorrhage and shock, the bleeding being probably the principal cause. Six of these were done in private practice, the rest in public; one, a fatal one, in the Royal Infirmary of Edinburgh, the others, forty-three in number, in King's College Hospital. I am not aware of such a list having been published before, and to myself and I believe to the Profession generally, it would be interesting to hear the results of the practice of those who have had greater experience than I pretend to in lithotomy on children. These are most of the specimens (exhibiting them); some have gone astray. I shall probably, at some future day, bring them particularly under notice, contrasting them with the generality of calculi that we get from the adult. But such a collection as I show you here, all being from the young, you do not often see brought together; generally specimens from both young and old are mingled together.

On Lithotrity.

The operation of lithotrity is now so familiarly known and so established in ordinary Surgical practice that it seems almost rash to venture any remarks upon it, or to affect the smallest originality. It is more than a quarter of a century since I myself ventured to write on ground which was in a manner new to British Surgeons. The instrument now in common use was then but little known, for the best double-bladed crusher had not then displaced the three-pronged tripodic apparatus of Civiale. Like most others of those days, I was not slow to recognise the superiority of the double-bladed lithotrite, devised, I believe, by Mr. Hodgson, and made more perfect soon after by Mr. Weiss. By the kindness of Mr. Hodgson I have the opportunity of showing probably the earliest specimen of this instrument; and here I have the opportunity of showing you one of the earliest specimens made by Mr. Weiss, the instrument being in many respects a more perfect development of mechanism than the other, but founded exactly on the same idea;—whether the crushing force was applied by the screw or by the hammer, which was then introduced into practice by Heurteloup, and strongly advocated by Costello. To this day I have never forgotten the peculiar hammering noise which I heard in early life on visiting a house where I understood there was some operation being performed. It resounded through the house, and that was the style of instrument for breaking the stones years ago, as most of you here know full well. The common interest in the subject and the little modification in the crushing force which I then proposed engaged my attention further, and was probably one reason why in early years I had acquired an amount of experience in cases of stone in the bladder which does not fall to the lot of the generality of young Surgeons in this country. Having now treated between 250 and 300 cases of the kind by lithotomy or lithotrity, I assume that my personal experience has been considerable; and I therefore venture to offer some remarks on the subject to which this lecture is in part devoted, which may possibly serve to advance and enhance one of the greatest achievements of modern conservative Surgery.

In the early history of modern lithotrity, the grand object was to file, rasp, saw, or crack the stone into sand, or fragments sufficiently small to pass with the ordinary stream of urine through the urethra; and even to the present day such may be said to be the doctrine of Surgery. To such extent has this doctrine been carried, that caution has been given against searching the bladder in certain directions for fragments, or attempting their extraction by any other means than by coaxing them into a tube, scoop, or catheter specially constructed with large eyes for the purpose. Paralysis of the bladder has been deemed one of the strongest objections to lithotrity, and it has been thought useless to break a stone where there was no power to expel the fragments. My impression is, that these views have been held by the majority of Surgeons in this country; I confess to have imbibed and acted on them myself; and it is because I think I know better now, that I venture to offer the present observations on a subject which many consider to have lost its novelty. In a large majority of my own early cases I was content with crushing the stone, and waiting for the gradual spontaneous egress of the fragments. I did make use of the so-called scoops, such as I show you—large hollow tubes, the large-eyed catheters, such as you see here, the eyes in various positions, according to one's fancy, or according to certain recommendations, double and single catheters, with injections and currents of water single or continuous, but with results so unsatisfactory that I had no confidence in any way of getting rid of fragments, excepting by forcible disintegration and chance. In some cases nature and chance did all that was expected; I will say, in in many cases, the fragments came in good time, and the cure was complete. In others, however, there seemed no end to the disease, which in reality appeared rather increased by the comminution of the stone. In one instance, during the early days of anæsthesia, the patient bore lithotrity as if nothing had been done; whatever roughness there might have been in the operation, he was, under the influence of ether, unconscious, and he bore

his condition afterwards most manfully. His malady, notwithstanding, seemed rather to increase than diminish, and his sufferings at last, from the fragments, were such that he requested to be relieved by lithotomy. I myself, wearied with the repeated unsatisfactory results, willingly complied. Lithotomy was performed. I extracted ten small stones by one swoop of the forceps. The operation did not last a minute, and I do not think that I ever performed lithotomy with less injury to the structures implicated, or with more temporary satisfaction to myself; yet the patient, a fine healthy man in all other respects, died within a few days. Although unfortunately experienced in the mysterious way in which patients die after both lithotomy and lithotrity, I was greatly struck by the rapid result in this instance. He had borne with comparative immunity more than the usual amount of irritation and suffering after lithotrity; but he sunk under lithotomy like one with the powers of life already exhausted to the last degree. This case made a strong impression upon me. I wondered how a man could bear so much from lithotrity, and so little comparatively from lithotomy. As he stood the use of the lithotritic apparatus so well, I asked myself how it might have been if I could have removed all the fragments which would not come away, and which, by their irritation, kept upon him all the sad sufferings from stone.

Some years afterwards my attention was further attracted to this subject. I felt dissatisfied with my experience of extracting stone from the female bladder, either by cutting or dilating. In July, 1854, a case of stone in the female came under my notice. The patient was three years old, and, wishing to avoid dilatation, I used a lithotrite made for the purpose by Weiss, smaller than any which he had ever constructed. With a scoop of the same size as this I cleared the bladder in two operations under chloroform, and the cure was rapid and perfect in all respects. I first crushed with the lithotrite, and then extracted the fragments with the scoop. With this latter instrument I either extracted fragments at once and entire, as you might fancy a fragment between the blades, as at present, or jammed the fragment so between the blades that I could withdraw the blades containing the fragments readily, without serious damage to the urethra. Since the above date I have almost invariably used these instruments in the process, or some like them, which I shall show you as we proceed. In the male I generally, as a first step, introduced a lithotrite of considerable size, such as I show you here,—No. 10 bougie—and broke the stone into various fragments; and then I have used the smaller lithotrite to attack the fragments themselves, and again have used this scoop with the object of removing fragments between the blades, so that the patient might have satisfactory evidence that the stone had been crushed. In a few days after the small crusher and scoop have again been used, particularly the scoop, by which the fragments which had been ground sufficiently small have been extracted singly, or two or three at a time. Thus, instead of waiting for the spontaneous escape of the fragments—a process usually both uncertain and tardy—the stone has been got rid of by direct and precise Surgical means. Occasionally, three such fragments as I show you here have been extracted on a single application or introduction of the instrument. It has generally been three, or four, or five, or six. I have taken as many as six with this very instrument. It holds the stone better than it does these pebbles, for the soft material of the stone yields a little, but the material of these hard pebbles will not yield; and therefore you can more certainly take several fragments away between the blades than you can deal with such stones as these. If this practice is judiciously carried out it will, under ordinary circumstances, prove an immense advantage; and in many instances a stone may be removed with a rapidity little short of the time needful for lithotomy, with the advantage that the patient need not be confined to his bed for a single day.

My chief object in this portion of my lecture is to draw attention to this subject. It is comparatively little known; and, moreover, a very general impression prevails that it is incorrect to extract fragments. The various instruments and mechanical devices which have been from time to time recommended or used for this purpose, or to facilitate escape, have generally proved of so little service, that they have been in a manner overlooked or laid aside by the practical lithotrist. It has even been thought that no attempt should be made to extract fragments, and, as I have already stated, so strong is the feeling in this respect that, when stone in the bladder is conjoined with paralysis of that organ, it is said that the operation of lithotrity is highly objectionable, if not impracticable, because there is no likelihood of the fragments passing away afterwards through a large-eyed catheter or scoop made expressly for the purpose. With the instruments which it is my object to recommend, the process of lithotrity, and, I believe, the distress of the patient, both bodily and mental, may be considerably abbreviated; and, instead of paralysis being objectionable, it is, perhaps, the condition most favourable to this operation that I am now speaking of, as it generally happens that with paralysis there is a callousness of the mucous membrane of the bladder, which permits a freer use of the blades than under ordinary circumstances.

In early days a large instrument was thought essential to the due performance of lithotrity. The risk of bending or breaking was thought considerable or serious, and on these grounds the largest instrument which the urethra would admit was selected for use. If a catheter or so-called scoop was used afterwards, its magnitude was thought of equal importance; and to give every advantage in this respect it was recommended that the urethra should be dilated, and if needful the orifice in the glans enlarged by incision, prior to the use of lithotritic instruments. As to the advantage of a large urethra, there can be no doubt; but I believe that large instruments are by no means so essential—indeed, I feel assured that comparatively small-sized are an advantage, and in certain stages of treatment I believe them of great value. The modern lithotrite, such as I show you, particularly of the best English makers, is a very superior instrument to those in former use, and less force is required to break an ordinary stone by them than was imagined. We seldom hear of an instrument of the kind either bending or breaking; and in the course of time I have come to the conclusion that one of small diameter permits of more ready manipulation than when the size is such as to fill and be in a manner grasped by the urethra. Hence, then, I have for many years used lithotrites of smaller diameter than those in common use, for even this size, which is not the smallest that I have used, is considerably smaller than I believe has been in common use among other Surgeons. An objection to small sizes has been made, because, when the bladder has been irritated by spasm, the water escapes, which it would not if the urethra were filled or plugged by a large instrument; but escape can readily be prevented if desired by grasping with the finger and thumb.

With regard to the quantity of water required in the bladder during the operation, I believe there is no such necessity for a large amount as some have imagined. When the organ is distended with eight, ten, or twelve ounces the stone is usually more difficult to be caught than when the quantity is smaller; the slightest touch causes it to be moved where there is a large amount of fluid, and fragments are certainly much more difficult to be detected and seized. A very schoolboy knows the difference in the weight of a stone under water when touched by his foot and when held in his hand above the water. A slight touch under the water will cause the stone to move about readily, but above the water, or on land, it would require some force to move it. The same view might be applied to stone in the bladder surrounded by a quantity of water. No doubt it is unwise, even dangerous, to open the blades of a lithotrite freely in an empty bladder, or one with very little water in it; but I have long been convinced that there is no need for the presence of so much fluid as some have thought.

The chief objections that I myself have found to very small-sized lithotrites, such as I show you, are, the comparative difficulty of passing them into the bladder, and especially the operative difficulty of sounding for fragments. In the finer manipulations of the sort it is hard to say whether the sense of touch or of hearing is of the greatest value. I am almost inclined to give the ear the preference, but even with this it is of the greatest consequence that the utmost facility of movement should be permitted; and hence I am averse to the use of the sounding board, which impedes movements, recommended by Mr. Brooke and others, and also to the use of instruments which fill up the urethra to such an extent as to prevent the free movement of the point of the instrument within the bladder. I was early impressed with the necessity of having a narrow shank for a sound, so that every facility should be given to the movement. I had Heurteloup's sound, as I show you here, modified accordingly. The shank was made of smaller diameter by several sizes than the curved end, and thus the latter was a sort of lob, which could be turned about freely and readily in all directions, while its comparatively large size gave more certainty to both hand and ear. An instrument of the kind has been depicted in the latter edition of my work on Surgery, and is now in considerable general

use. A sound of this sort is of far greater value than one with a thick stem, or with a slender stem and equally slender point; and in accordance with my views on these matters Mr. Matthews has lately constructed, on his own device, a lithotrite with a narrow stem and lob-point, which in my opinion goes far to facilitate the effective use of the lithotrite in ordinary cases of stone, for where this part of the instrument lies in the urethra it can be moved with wonderful facility compared with the movement of an instrument of such diameter as I show you here, or larger, with the shank pretty much about the same size as the extreme end. The force in this instrument is applied in accordance with my own views on the subject; but of course the same shape will apply to the various ways in which the screw-force has been applied so admirably in modern times, particularly of late by Messrs. Weiss and Mr. Coxeter. This instrument which I hold in my hand shows the blades closed, with the lob end. The narrow shank permits the free use of the instrument both in urethra and bladder, and the increased bulk in the end intended to touch the stone, gives development to both sound and touch.

But this instrument is that which I am most desirous of drawing attention to. The small size must appear remarkable to those even familiar with the lithotrites and scoops hitherto known. I am not aware that any so small has ever been made before. Mr. Matthews, the instrument maker, informs me that there were none in the recent International Exhibition, and certainly none came under my observation in looking at the instruments there. I have instruments of the size I have shown you, varying from No. 3 to No. 6 or 7, as the largest of these may be; and with these I am in the habit, as I imagine, of diminishing the period usually devoted to the completion of lithotrity.

Generally, when a stone is crushed, the fragments are left to chance; so-called scoops and deep-eyed catheters have been introduced, and by the natural stream, or by the force induced by injections, the fragments have been extracted, and have occasionally appeared in quicker time than if left solely to chance; but in the majority of cases the Surgeon and patient have waited the chance expulsion of the fragments, without instrumental aid. At the date referred to, 1854, I had occasion to see the advantage of extracting; and I shall proceed to explain this more completely to you. At this present date there is ample experience to show, that after a stone is crushed at one or repeated sittings, the fragments do come away, and a perfect cure is the result; but in many instances the last fragment is tardily discharged, and many weeks or many months elapse ere the cure is perfect. It may be justly said of successful lithotrity, that neither weeks nor months are long, in comparison with the advantage gained; but, for the credit of Surgery, it may be claimed as an advantage to do that in a few minutes which nature and chance might take weeks or months to accomplish. The chief object I have in view in these remarks is to establish this practice. Supposing a stone crushed, and its fragments comminuted, my proposal is, that these should be removed at the same time, or as soon thereafter as may be. The lithotrities generally in use are so large that they can be withdrawn from the bladder only when shut, and if ever a fragment rests between the blades it must be comminuted before the blades can be closed and the instrument can be withdrawn. The same remarks are applicable to ordinary scoops, such as I show you here; if a fragment of any size gets between these blades, that fragment must either be let go or it must be squeezed and broken, so as to permit the blades to be further closed before the instrument can be withdrawn. Comminution must be so effectual that the blades can be closed, or nearly so, and all that can be brought away is the small bruised portions held in the hollow between the blades.

But with a small lithotrite and scoop such as I am in the habit of using, a fragment of considerable size may be withdrawn, whilst it remains betwixt the blades, and yet the united diameter may be readily drawn along the urethra; as, for example, with such an instrument as this. Between these blades, and including them, we have a bulk not larger than the ordinary diameter of the urethra, certainly not larger than the diameter of this other instrument. You can only draw the larger instrument out by itself; but the instrument I now hold in my hand you can draw out with a load in it, if I may so say,—with one fragment or many. As I have stated, I have brought away as many as six small stones with an instrument of this kind. In the last sixty cases I have adopted this practice generally, and with few exceptions had every reason to be satisfied. Occasionally, when over-anxious for a rapid result, I have extracted fragments rather too large to come readily along the urethra, particularly in the prostatic or membranous portion, or at the triangular ligament. In some, where the urethra nearest the neck of the bladder has been roughly used, there has been considerable irritation; in others, even under such circumstances, there has been no irritation whatever; and in many instances I have been able to effect, in one or two operations, within ten days, what, according to custom, would take weeks, or possibly months. I have done, in fact, by a precise Surgical manipulation, that which, according to ordinary rule, is left entirely to chance. Experience has taught me that it is almost hopeless to trust to chance in all such cases—that in many instances the fragments may be weeks, even months, in coming away, even with attempts to coax them through catheters with large eyes, and other instruments devised for the purpose. Here are the fragments of stone crushed in a man whose bladder acted regularly; yet only a few passed spontaneously; all the rest were removed by the scoop in question in three or four operations. From first to last there was not a single bad or troublesome symptom. The patient was detained scarcely an hour in bed beyond his regular periods of rest. I never saw one suffer less distress; yet before he came under my notice he had been strongly urged to submit to lithotomy.

It is considered an extreme misfortune for a patient to have stone in the bladder, and paralysis of that region at the same time, and it has been well nigh ruled in Surgery, that lithotrity is scarcely applicable in such cases, on the ground that the fragments are not likely to be carried out with the stream of urine, through the urethra or through a catheter. Of course I am aware that there have been successful cases of the kind; but the success had been more from lucky chance than from skilful Surgical experience; and my object in these remarks is to claim for Surgery a direct special and precise mechanical movement, whereby that which has been heretofore left to chance is converted into certainty. Now, here are the fragments of a large stone from the bladder of a patient who could not pass a drop of water without the aid of a catheter. All of these, with a few minor exceptions, were extracted with the small scoop that I have shown you. Here are the fragments from a similar case, where, however, the urethra was unusually large, which were all extracted by the small scoop by my friend Mr. Henry Smith. The largest of these fragments is about three-quarters of an inch long by half an inch wide, and it was extracted without any laceration or marked distension of the urethra; yet through the neck of the bladder or urethra of this size even the urine would not drop.

The mechanical history, if I may so call it, of the development of stone shows the uncertainty of its spontaneous expulsion from the bladder. Most calculi have a nucleus smaller than the diameter of the urethra; yet how few nuclei pass! At all events, if larger than the diameter of the urethra. Nearly all the instances in which lithotomy and lithotrity have been performed are examples in which the nuclei, small round bodies, have not passed away spontaneously. Now, I claim for Surgery the power of taking away such bodies. I do not profess originality in this respect; for we all know what was done by Sir Astley Cooper; but the instrument he used in removing small calculi-gravel, we may say, is of inferior mechanical powers to the modern lithotrite. It would be of little use in dealing with fragments in lithotrity; nor would the ordinary lithotrite or scoop be of much use in what I am now speaking about. The small instruments which I now show are essential to the practice which I advocate; and with these, I maintain, as I have amply tested in numerous cases, that lithotrity can be abbreviated and brought to a certainty such as has not been claimed for it hitherto.

Here are numerous examples from various cases I have had. I brought these purposely forward for the sake of showing instances of the extraction of single stones, or fragments, or many at the same time. All of these have been extracted in the way that I have mentioned; and I have been able to abbreviate the treatment from months and weeks, as I have stated, to days, hours, or minutes. Some of these are from the female. Here, for example, is stone from a young female bladder, extracted by two operations. There are two very beautiful specimens, extracted from a patient on whom I had previously performed lithotrity. He got relief by extraction of fragments at the first operation. He was on his guard after he left town. As soon as symptoms of stone appeared

again, which they did some few years afterwards, he came to town, and I extracted these in the way I have mentioned, with the small instrument I exhibited; and instead of the gentleman remaining three weeks in town, as on the previous occasion, he went out of town two days afterwards perfectly well. He appeared again about a year afterwards with a single stone, which I show you; instead of remaining in town for weeks or months, he stopped a single night at his hotel in town, and went off the next day perfectly well, thanks to these little instruments which I now take the liberty of bringing under your observation.

ORIGINAL COMMUNICATIONS.

SURGICAL INQUIRIES.—No. II.

A SIMPLIFICATION OF THE EXTRA PERITONEAL OPERATION IN THE SEVERAL VARIETIES OF STRANGULATED HERNIA; WITH OBSERVATIONS ON THE ANATOMY OF HERNIA.

By FURNEAUX JORDAN,

Surgeon to the Queen's Hospital, Senior Surgeon to the Birmingham Eye and Ear Hospital.

(Continued from page 642, vol. i. 1864.)

I pass now to describe a few details of the operation as applied to the several varieties of strangulated hernia. In every variety the superficial incision is best made on that side of (never over) the neck of the hernia at which it is intended to make the deeper incision. It may be made in any direction, vertical or transverse, as its object is simply to admit the finger; perhaps more freedom of movement for the finger with greater distance from the tumour is obtained by making it a right angle to the deeper incision. Hence, in femoral hernia, it will be vertical to the inner side of the neck of the sac; in inguinal, unbilical, and ventral hernia, it will be transverse and above the neck of the sac. In each case it may be made about an inch from the neck of sac. In femoral hernia, the incision is made over the pectineus muscle, which lies at some distance from the surface, and is covered by a large quantity of connective tissue in firmer and looser strata, which may with sufficient accuracy be called by their well-known names. This superabundant tissue may be divided downwards towards the pectineus until the finger can be carried outwards, upwards, and backwards to the edge of Gimbernat's ligament. The hernia knife is carried along the finger nail, and a line or two (according to the amount of tissue carried before the knife) beyond; the edge is turned to Gimbernat's ligament, and a very sparing incision made transversely inwards. The tip of the finger now makes firm pressure towards the spine of the pubes. The thigh being flexed and thoroughly rotated inwards, gentle and momentary taxis (it should be nothing more) effects reduction of the tumour. If the finger nail cannot be carried easily to the margin of the ring, the fasciæ have not being sufficiently divided, or, in quite rare cases, the upper horn of the saphenous opening, instead of being blended with Gimbernat's ligament, may be brought lower down. In either case incisions carried down more completely to the pectineus will remove all difficulty. Gentle pressure outwards on the moveable sac will always throw much light on the precise locality of the immovable constricting margin.

I was requested by a Medical Practitioner in Birmingham to see Mrs. H., aged 30, with strangulated femoral hernia of thirty hours, which, under the complete influence of chloroform, resisted all justifiable use of the taxis. I carried the point of the hernia knife by an almost subcutaneous incision to the margin of Gimbernat's ligament. Pressure on the incision, followed by momentary application of the taxis, effected reduction of the tumour. The next day the patient laughed and chatted with her friends, and was kept in bed with difficulty. I was called by a Surgeon in the country to see Mrs. R., aged 47, with strangulated femoral hernia of two days' duration. There was extreme depression, but no sign of inflammation in or around the sac. I performed the operation I have described, and a rapid and excellent recovery followed. The two cases just recorded are simply illustrations of a very frequent form of hernia. The next case is more unusual:—Mrs. D., aged 80, was admitted into the Queen's Hospital under my care. Collapse was so extreme that she was supposed to be dying. I performed the simple operation described above, and made pressure on the incision. On applying the taxis there was immediate reduction of almost the whole of the tumour. The sac, however, was not completely empty, and I consequently extended the incision over the coverings and opened the sac, which contained a small portion of omentum fastened to the sac by one old small adhesion. She never rallied from the shock. After death there was no trace of inflammation anywhere.

In inguinal hernia, the careful division of the superficial fasciæ will enable the finger to pass along the neck of the tumour to the seat of strangulation, when a limited incision upwards, pressure upwards, flexion of the thigh, and taxis will mostly effect the desired object. The operation is especially applicable to umbilical hernia, as division of the cutaneous structures brings the finger so easily to the margin of the opening. It is most imperative here to carry the hernia knife as far as the nail only; where the margin of the linea alba projects after the manner of a short tube (as in a large irreducible strangulated case which occurred to me recently, in which convalescence followed the pre-taxoid operation, but which ultimately terminated fatally in consequence of the grossest imprudence), the nail must precede the point of the knife step by step. The linea alba is thin; the fascia transversalis is extremely thin; the subperitoneal tissue is scanty, and, with the peritoneum, is pressed close to the margin of the outlet. In irreducible umbilical hernia it is of immense importance not to open these thinner structures except the linea alba.

All the advantages of the extra-peritoneal operation may be, with still greater emphasis, claimed for the simpler form of operation. There is less danger of hæmorrhage, and should it occur it will be external and visible. Should I meet with an abnormal distribution of the obturator artery, and accidentally wound it (an accident less probable in this operation than in any other), I should arrest hæmorrhage with wire pressure applied at the proximal side of the arterial wound by means of a curved needle. The bowel is not exposed, handled, or wounded either below or above the stricture. (See James, of Exeter, on the liability to the latter accident in the ordinary operation, even in the most skilful hands). Inflammation, ulceration, and incipient (speckled) gangrene are repaired more rapidly and more completely in the subcutaneous condition in which the abdominal organs are naturally placed.

If the operation I have described be performed with extreme promptitude in cases of reducible strangulated hernia, it is, *per se*, so free from danger it is impossible that the result should be unsuccessful, save in exceptional cases where the shock of the strangulation itself is sufficient to cause death, as in extreme old age, or in cardiac or pulmonary disease. I willingly grant that earliness is even more important than the mode of operating. Nevertheless, other things being equal, both experience and statistics show that the operation of not opening the sac is incomparably superior to the older method. I find in Mr. Bryant's excellent clinical memoir on the experience of eight years of strangulated hernia at Guy's Hospital, that in the cases which died after the extra-peritoneal operation during the period referred to, not in a single case could the cause of death have been obviated by opening the sac. It is to be feared that the older and severer operation of opening the sac indiscriminately is still so frequently resorted to because of the ease with which it is performed. To cut down until the bowel is found, to discover the hole through which it escaped, to cut that hole larger with a knife, and thrust the intestine back into the belly, requires no anatomy, and but moderate caution.

Perhaps the greatest changes in the modern Surgery of hernia are seen in the "prior" and "after" treatment of strangulated hernia. In the prior treatment there is but one proceeding which deserves the confidence and the expenditure of the time of the Surgeon—namely, the complete administration of chloroform and, under its influence only, the application of the taxis for a very few minutes if the hernia be femoral and small (in certain cases not at all), a few more if inguinal and large. Before chloroform is given the Surgeon should be prepared, if necessary, to adopt operative measures. Bleeding, antimony, tobacco, the warm bath, prolonged taxis, and taxis without chloroform, are now, or ought to be, of the past. Ice locally, and opium internally, are justifiable only in exceptional circumstances, as when a House-surgeon waits for a Surgeon, or one Surgeon waits for another. The after treatment is equally clear. Rest to the contused, exhausted, and inflamed bowel must be secured by means of opium, and the persistent avoidance of purgatives by the mouth. After many days, if the bowels do not act, one or two enemata daily will in time bring about the desired result.

In conclusion, I would again urge the proposition that the simplest form of extra-peritoneal operation is desirable in all cases where reduction by the taxis is desirable, but cannot be effected. Too frequently Surgeons apply vigorous and prolonged taxis, and, if it fails, immediately proceed to the severer operation of opening the sac. Now, either it is improper to apply the taxis, or it is improper to open the sac before resorting to a simple measure which renders the taxis successful.

LITHOTOMY IN SMYRNA.

By JAMES McCRAITH, M.D.,
Surgeon to the British Seamen's Hospital, Smyrna.

The following paper is a concise history, a synopsis, of our lithotomy practice here in Smyrna. My museum contains thirty calculi, or rather the calculi extracted from thirty patients, as I count the double stones as one. Of these I operated on eighteen myself, of which two were fatal; and I assisted at nine others, of which one was fatal, giving a death-rate of one in nine. Of the three cases at which I have not assisted one, I know, was successful; one calculus (a very large one) was taken, as related, from the grave a year after the interment; and the third I don't know any particulars of. Of the two deaths in my own practice, one was an old, healthy man, of 55 or 60 years of age. Drs. Messer and Johnson (then serving on board H.M.S. *Pelican*), with Drs. Wood and Chasseand, of this place, were present, and assisting me. No difficulty or complication was encountered; the operation lasted only three or four minutes, and two stones were extracted. Chloroform was given. The old man obstinately refused meat, soup, and wine; he would keep on low diet, despite all insisting to the contrary. Pelvic celulitis was set up, of which he died on the sixth or seventh day. The other (second fatal case), was that of a youth 14 or 15. He had suffered from the disease from the time of his being $1\frac{1}{2}$ years old; in fact, all his life. He was worn to a skeleton; the urine constantly dribbling away. The stone could be felt from the rectum, fixed or impacted in the neck of the bladder. I have operated on another case (where the calculus was similarly impacted) successfully, though such a circumstance is a grave complication. I declined to operate at first, explaining the little chance of success to the parents; but as they had brought the poor sufferer a long distance—from the interior of this country,—and as they said he must die if not operated on, they begged of me to operate, laying the risk against them. Under such circumstances, I thought it my duty not to refuse. Drs. Wood, Chasseand, and Masganna, jun., of this place, were present, and assisted. The calculus proved of an hour-glass shape. The lower part was quickly reached and extracted; shreds and processes of mucous membrane, inserted into depressions and adherent to irregularities on its surface, came away necessarily with it. It was evident from the broken stem or neck that all had not come away. This part was evidently contained in a separate pouch at the neck of the bladder; and, on examination, the rest, or remaining part, was found in the body of the bladder higher up. The entrance was narrow. I dare not cut to bring it away entire; so I had to break it up, and bring it away piecemeal. This part was also adherent to the mucous membrane, shreds and granulation-like processes being attached to slits and irregularities on its surface: the colour of the surface of both parts black, evidently from the colouring matter of the blood. The particulars, constitution, weight, diameter, etc., of the calculi in both these fatal cases are given in No. 6 and No. 8. There was no reaction. The patient, despite stimulants (being a Mahometan, no wine was given), gradually sunk, and died on the third day. The extraction of the pieces through the narrow neck was necessarily a tedious process, and took a considerable time—twenty minutes or half an hour perhaps. Besides these twenty-seven cases, of which I possess the calculi, I assisted at another case of an old man, of 50 or thereabouts, in which five calculi, of flat round form, each weighing, I should say, at least seven or eight drachms, were extracted successfully. The difficulties and accidents I encountered or witnessed were the following:—In one case at Lyra, assisted by Dr. Vitalis, of that place, I found very great difficulty and delay in seizing the stone, which proved a very large one, in a child of 4 or 5 years of age. The calculus got up behind the pubis, as it will do in children (if of any considerable size), on account of the peculiarity of form and position of the bladder at that period of life. I happened not to be provided with a curved forceps on the occasion. I at length succeeded, and the case proved successful. It is No. 2 in the table. I assisted on two occasions in which the rectum got wounded. In one of these the operator could not find the stone. He passed the forceps to me, and by good luck I immediately came on it, and brought it away. It was very small. No. 29.—The patient was an adult of 25 years or thereabouts. Both had a tedious convalescence. The third fatal case of the twenty-seven was that of a child, aged 5 or 6. There was great difficulty in seizing the calculus. The patient was a long time on the table, and at length the stone was seized and brought away. Peritoneal inflammation resulted, and the child died on the third day. I consider the difficulty in seizing the calculus in those cases of children to be owing to the opening in the bladder being made too far posteriorly; the cut, in children more especially, should include the posterior part of the membranous portion of the urethra. On another occasion the operator, by some accident, let the grooved sound get out of the bladder, after having made a good opening, and before he had passed the forceps; the result was, that it was impossible to again reach the bladder by any instrument, all passing on between the bladder and rectum; and the child, aged 6 or 7 years, had to be removed to bed with the stone remaining in his bladder. I attempted to rectify things, but failed. The fault in this instance was taking out, or allowing to be taken out, the sound before a forceps or finger was passed, and having made the opening too far posteriorly. The child recovered from this attempted operation; was brought to me six months after, and was operated on with success.

One of my cases was a relapse. I assisted at the first operation performed on him two years previously; he had a good recovery. A year after the first operation, symptoms of stone again appeared; and in the violent strainings a fistula formed in the track of the cut; the second operation cured both the fistula and the other symptoms. He was a child of 6 or 7 years of age.

Some years since I assisted Dr. C. Wood, of this place, in a case of lithotripsy. The patient was a youth of 18 or 19 years of age, who was not inclined to submit to lithotomy. At the first sitting the stone was easily seized and broken, but on examining the *débris* that came away (pretty large pieces, as the urethra was large), we found that we had stumbled on a calculus of pure (and, therefore, extremely hard) oxalate of lime. We proposed immediate lithotomy, but the patient would not consent. After four or five sittings, and after a large quantity of the broken calculus had come away (pieces with sharp points and edges), what we had anticipated happened—viz., a piece got fixed in the urethra which could not be got rid of, causing retention; and Dr. Wood operated with success, without the aid of a grooved director to guide him. The bladder being much distended facilitated somewhat this dangerous and difficult proceeding. The case is No. 26 in the table.

I had one case of lithotripsy in a female. I think lithotripsy should almost invariably be performed on the female. An operation on a child a year and a-half old was followed by a severe swelling of the testicle; the vasa deferentia were probably wounded. Case successful. The greater number of my cases were well on the eighth or tenth day, and in one case, a child of four or five years, the wound healed by "first intention," being well on the third day. Dr. Chasseand, Surgeon of St. Antonio's Hospital here, witnessed this case and cure.

One calculus, No. 3, gave very great suffering; it is oxalate of lime externally, but it is composed outside of phosphate of lime, large, long crystals placed on end, like the quills on "fretful porcupine." I do not know if this is often so, or if it be rare. The patient certainly suffered more than usual from such a tenant in his bladder. He was constantly screaming from pain.

(To be continued.)

Tetanus in the American Army.—Tetanus has recently prevailed in the army of the Potomac to an unusual extent. Upwards of fifty cases have occurred within a short period at Fredericksberg and Washington. Nearly every case has proved rapidly fatal. Dr. Brown-Séquard has offered to deliver a lecture upon this subject at Washington in order to make his experience in the treatment of nervous diseases available to the Army Surgeons. The lecture will be immediately published and circulated.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

METROPOLITAN FREE HOSPITAL.

CLINICAL REMARKS ON CASES OF OBSCURE FORMS OF RHEUMATIC FEVER.

(Under the care of Dr. SUTTON.)

In calling attention to the following cases, Dr. Sutton said that they were interesting because they illustrated some important points in the history of acute rheumatism.

Alfred Y., aged 21, wheelwright, temperate habits; seldom drinking more than a pint of beer a-day.

April 8, 1864.—Applied as an out-patient at the Metropolitan Free Hospital, complaining of a troublesome cough. No dyspnœa, unless he "attempts to do his work;" but his widely-expanding nostrils contradicted that assertion. Face had an aspect of distress; features drawn; complexion cachectic looking.

Family History.—Father a publican, a healthy, but not a strong man, drinks freely; not subject to rheumatism or gout. Mother enjoys good health, and is of very florid complexion. Brothers and sisters he believes to be healthy. He attributes his cough to catching cold, which he is very liable to do in going from the hot shop into the open air. Six weeks ago had a severe pain in the calves of the legs, which compelled him to remain at home for one day, when the pain left, and he returned to his work. Previous to that had always enjoyed good health, excepting a mere cold. Figure short; thorax well formed; wrists rather thick; muscles well developed; gait erect; skin fair, thin, but firm; when well has a good colour; hair light brown and thick; eyelashes the same; eyes grey, and pupils dilated; face oval; features regular; alæ nasi thin; upper lip thick; chin somewhat pointed; teeth in upper jaw regular and sound, excepting one or two of the molars, which are decayed; in the lower jaw, incisors irregular, crowded together, worn down at the edges, and discoloured; fingers short and rather large at the joints; perspires very readily; appetite good and regular, but does not like fat; does not usually suffer with cough nor shortness of breath; urine often contains red sediment. On examination, the urine was found to have an acid reaction; sp. gr. 1020; no albumen.

Physical Signs.—Heart's visible impulse between the fifth and sixth rib well marked, but diffused; percussion of the chest appeared to be everywhere normal, except over the precordial region; there increased dulness, extending upwards as high as the second rib; no marked extension of dulness laterally; a very faint soft to-and-fro sound, heard most distinctly at mid-sternum, but so faint that Dr. Sutton, in order to satisfy himself that he was not mistaken, asked Dr. Jones, his colleague, to oblige him by listening. After carefully doing so, he concurred in Dr. Sutton's assertion that there was a friction sound. No bruit was heard either over the region of the base or apex; mucous râles heard over the posterior and lower portion of the chest; respiration otherwise seemed natural; pressing firmly with the finger between the fifth and sixth rib, he complained, "It feels sore;" but it could not be said to be tender on pressure; has no particular pain in any part of the body; skin very moist; perspiration smelt sour; tongue covered with a dirty white fur. Dr. Sutton, believing that this would prove to be a case of acute rheumatism, recommended him to apply at Guy's Hospital for admission, where he was taken in April 9, and placed under the care of Dr. Barlow, who kindly allowed Dr. Sutton to watch the further development of the symptoms. On the day of admission, the chest was again carefully examined by Dr. Sutton, when the friction murmur could be heard very distinctly, and the dulness had increased in intensity as well as extended higher. Pulse regular, 90.

10th.—Dr. Barlow, while examining him, called Dr. Sutton's attention to the presence of tactile friction fremitus, which could be very plainly felt over the precordial region, and that Dr. Barlow also remarked that there was a harsh, loud "to-and-fro" sound. The dulness extended to the first interspace. Tongue covered with yellowish-white fur; perspiring very freely, and perspiration acid to test-paper. Says he is in no pain, only a little sore over the left breast. Bowels confined; pulse quick, full, but easily compressed; no albumen. ℞ Pulv. jalapæ co.; mist. amm. acetatis.

13th.—Complains of pains all over him for the first time; fixed pain in the left shoulder, over the left coracoid process, which was not tender on pressure. Says that he "feels ill." Is sweating very freely. Tongue thickly coated with white fur. ℞ Potassæ bicarb., gr. xx.; Potassæ nitratis, gr. x.; tinct. opii., ♏ v.; mist. camph., ℥j. 4 tis.

14th.—"I feel a great deal better; the pains almost all gone." The to-and-fro sound was very audible; bowels confined. ℞ Haustus sennæ c. tinct. colchica. compos., ♏ xxv. St. St. ℞ Pulv. Doveris, gr. viij.; calomel, gr. ss. h,s,s.

16th.—Improving; in no pain; appetite good.

20th.—"I feel much better; pains in the chest all gone." Dulness had much diminished; friction murmur still heard very distinctly; continued to improve very fast.

May 6.—This day he was discharged. Again examined by Dr. Sutton, when he found that the dulness over the precordial region was normal; apex bent between the fifth and sixth ribs, and the murmur had entirely disappeared.

Dr. Sutton here said that in this case the signs of inflammation of the pericardium were so well marked that Dr. Barlow remarked he had no doubt that the patient was suffering from pericarditis; but the difficulty was to account for it. When, however, on April 13, pains in the limbs and other symptoms appeared, it was evident then that there was acute rheumatism. It is to be remembered that there was no albuminuria; that he was entirely free from pain before this date; no physical signs of inflammation extending from the neighbouring organs, and no history of any injury to the chest; but that, from the first, he looked ill, and felt far from well; that he sweated freely, and the perspiration gave an acid reaction to test-paper; and that his tongue was "creamy."

Dr. Sutton further proceeded to say that there were two very interesting features in this case:—1st, That the pericarditis preceded the usual rheumatic symptoms; 2nd, That, then, the indications of acute rheumatism were so slight and of such short duration, that they might have been easily overlooked.

This patient had signs of pericarditis for five days before the pains in the limbs appeared; but Dr. Sutton said there are cases on record where the interval has been longer by several days. One of the most interesting is to be seen in the *Archives General de Medicine*, vol. ix., page 325, by M. Hache. In this case there was acute pericarditis for twelve days before the symptoms of articular inflammation supervened. Dr. Graves gives the case of a patient who was admitted into the Meath Hospital for some trifling febrile symptoms, and on the fifth day signs of pericarditis came on, and on the tenth inflammation in the joints. Dr. Watson and Dr. Taylor had also related similar cases.

The next point to which Dr. Sutton alluded was that in this case there was no pain, swelling, or tenderness on pressure in any joint. The patient, when speaking of the pain, remarked, "I have no pain in any particular spot, but all over me—shooting pains." Dr. Sutton said that a person may have rheumatic fever, and yet no arthritis be present. Chomel had considered such cases as analogous to those of small-pox, scarlatina, and measles without any eruption. Dr. Graves, in his "Clinical Lectures," states that in rheumatic fever the quickness of the pulse, the heat of the skin, the tendency to profuse sweating, the debility and restlessness,—all may exist without any inflammation in joints, and may be resolved without any such inflammations ever occurring; and a similar statement has been made by other careful observers, so that Dr. Sutton believes there cannot be much, if any, doubt on this point. Dr. Sutton said, moreover, that the skin may not be particularly hot to the hand, but perspiring; the tongue not remarkably white; the pain may be confined to one joint of one finger, or even merely a momentary flying pain, and yet pericarditis or endocarditis be present, as a severe complication of this slight rheumatism; and that the younger the patient the more likely this is to occur. Dr. West writes that in childhood the extreme mildness of the rheumatic symptom is no guarantee that the heart may not be affected.

Considering these facts, Dr. Sutton asked, is it not probable that we often overlook cases of acute rheumatism because we only inquire after the leading symptoms of the disease? Dr. Sutton mentioned that he remembered seeing a young girl who was supposed "to have caught cold from sitting in a draught" whilst she was perspiring. She felt chilly; next day complained of languor, headache, nausea; skin did not feel hot to

the hand, but very moist; said in the night she sweated very much, then the perspiration smelled "so faint;" that "I ache all over me." The heart was carefully examined; but nothing particular was observed, excepting that the visible impulse was unusually well marked, and the first sound just above the nipple appeared prolonged. In three or four days all these symptoms had subsided, leaving her simply weak. Six months afterwards Dr. Sutton had occasion to examine her chest again, when he heard a systolic murmur over the apex of the heart, which was conducted towards the angle of the left scapula; no bruit was heard over the base. No history of any illness subsequent to the one described.

The question is, was that so-called "cold" not a case of rheumatic fever? Was there not latent pericarditis, endocarditis, or both? The subsequent discovery that there was an imperfect mitral closure was presumptive evidence in favour of it being so. However, the great interest attached to such cases is not whether there was pericarditis, and, in consequence, an adherent pericardium, but—what is of far more importance—was this pericarditis of rheumatic origin? How would it be likely to affect the future prospects of the patient? On this subject, the statistical labours of Dr. Barclay tend to show that, when a person has had rheumatic fever and pericarditis, they are liable to suffer with endocarditis, even though the usual symptoms of rheumatism should not again show themselves.

It might be asked if acute rheumatism, with pericarditis is overlooked, and in consequence allowed to carry on its ravages unknown and uncared for, ought we not more frequently to hear of death from so-called idiopathic pericarditis?

Dr. Sutton, in replying to that objection, said that clinical experience had taught, that uncomplicated pericarditis was not a very fatal disease; that rheumatic pericarditis subsides with the general rheumatic symptoms, and that without any special treatment; that in those in whom the arthritis and febrile disturbance are well marked the pericarditis is generally severe in proportion. It is, then, he thinks, a natural inference that in mild cases of acute rheumatism the pericarditis would be mild also, or, as it would be usually expressed, latent.

A case that appears to be idiopathic pleurisy not unfrequently turns out to be of rheumatic origin. Indeed, severe pleurisy sometimes ushers in rheumatic fever. Hasse goes so far as to say that rheumatism is the most ordinary source of inflammation of the pleura. Rheumatic peritonitis appears to be rare.

Dr. Sutton urges that wherever there is sero-fibrous or fibrous tissue, there is a seat for rheumatic inflammation. Thus, it may attack the sheath of a sensitive nerve, producing severe neuralgia, or it may so impair the functions of a motor nerve that the parts supplied by it are paralysed.

Dr. Gull had an example of this under his care in the clinical ward of Guy's Hospital, and he kindly allowed Dr. Sutton to watch and refer to the case.

A girl, aged 19, while living as servant at a public-house, one night was told that the cistern had over-flowed: she got out of bed to see after it. While standing mopping up the water she felt excessively cold. Next day she did her work as usual, but in the evening she shivered very much. The morning afterwards her mistress thought she was making grimaces at her, which led to the discovery that the left side of the face was paralysed. She attended at Guy's Hospital as an out-patient for six weeks, but not improving, was on March 2 taken in, and placed under the care of Dr. Gull.

Slender form, fair complexion, light hair and eyes. Somewhat anæmic looking. Left side of the face paralysed, and diminished power over the right arm and leg; the latter, she says, came on February 29, with pain and weakness of that side, and at the same time accompanied with swelling of the left foot. Complains of occasional catching pains in the right limbs, and that she cannot see so well out of the right eye: now and then sees things double. Pupils equally dilated. Skin smells sour, and sweating freely.

March 7.—Has recovered the power over the right side. Face much the same. Still sweats a great deal. Perspiration acid to test-paper. Has flying pains in different parts of the body, but fixed pains in the right knee. A faint systolic bruit could be heard over the base of the heart while she held her breath; it was more distinctly heard over the left carotid. First sound at the apex prolonged. Percussion normal.

14.—Face still much paralysed. Cannot close the left eye. Walks very well, but complains of pains in the knees, and that she soon gets tired. Appetite good. Pulse 90.

21st.—Not so well the last few days. She has pains at the bottom of the back. Her wrists and ankles were swollen this morning. Face still paralysed. Systolic bruit heard at the apex. Pulse 88. Sweating freely.

The further progress of the case was that well-marked rheumatic symptoms came on; at the same time, the face gradually improved.

We are indebted for many of the particulars of the above case to Mr. Praddow, Dr. Gull's clinical clerk.

Dr. Sutton remarked that in this case the sour perspirations, the flying pains, and the languor, were all thrown into the shade by the paralysis.

Dr. Sutton concluded by saying that he found great assistance in diagnosing such obscure cases from taking into consideration the temperament of the patient. Persons of the nervous and nervo-sanguine temperament are the most liable to this disease; those of the bilious the least so. We must form our diagnosis of the diathesis from the bodily conformation and functional disturbances, and not conclude that a person has not the rheumatic diathesis because he has never had actual rheumatism. For the supervention of the disease depends on the diathesis being developed into a disease by accidental causes. Now as to relation of these causes to the attack. A large number of the patients have an hereditary history of rheumatic fever, but a still larger deny that there is any rheumatic affection in the family. In making this inquiry, it should not be forgotten that the law of hereditament appears to be that parents transmit a tendency, not to a given *disease*, but to degeneration of a certain class of *tissues*. Probably the parents have never had the disease, but one or both of them have suffered from impaired nutrition, and, in consequence, degeneration of certain tissues; the offspring may have the mucous, the vascular, or the fibroid diathesis, depending on which of the great class of tissues of the embryo this tendency to degeneration has been inflicted. For example, in a case of phthisis there may be no family history of consumption, but there may be a history that the patient's father followed a certain occupation which tended to deteriorate his bodily vigour, or that his habits were such as gave rise to imperfect functional activity or disordered nutrition of the lungs. In a case of gout, there was often no hereditary history of that disease, but frequently of abuse of alcohol in the patient's father. In acute rheumatism similar inquiry generally shows either that one or both parents have had rheumatic fever or a sister disease, such as rheumatic gout, or that the father has drank hard; or, lastly, it is not uncommon to hear that the parents were remarkably healthy and lived to a good old age, and their parents before them; that the patient never had a day's illness until his present attack, but that he himself had been very intemperate. Here further inquiry leads to the discovery that the parent or parents had a florid complexion, and also other signs that show the arthritic diathesis, although they had not had actual rheumatism. Here the diathesis is transmitted, the tendency to degeneration of the vascular or fibrous tissues is aggravated by the excessive use of alcohol, and the actual acute rheumatism is brought to life by the accidental occurrence of sleeping in a damp bed or other such cause.

Dr. Sutton remarked that Dr. Laycock had especially called attention to such principles as the above. Dr. Sutton believed that further advances in clinical investigation would demonstrate the truth of many of Dr. Laycock's views, which now appear to some to be unsubstantiated.

THE HULL INFIRMARY.

EXTENSIVE NECROSIS OF THE HUMERUS—REMOVAL OF THE DEAD BONE—RECOVERY, WITH OSSEOUS ANCHYLOSIS AT THE ELBOW-JOINT—RESECTION—GOOD RESULT.

(Under the care of Dr. KING.)

[Reported by Mr. EVANS.]

MARY A. B., aged 12, a healthy child, admitted February 14, 1862, with necrosis of left humerus. The disease had existed three years, and commenced spontaneously. No injury ever sustained. Humerus very much enlarged and thickened its whole length from the great amount of new bone formed, making a complete cylinder; superficial veins of shoulder large and distended. Four or five sinuses, above, in the middle, and below, discharging pus, and leading down to dead bone. From one of the lower ones projected a portion of dead bone half an inch or so, not moveable. There was also complete anchylosis of elbow-joint at an obtuse angle.

February 21.—An incision made at upper part from one of the sinuses, and a piece of dead bone—the shaft—extracted, measuring five or six inches in length; that which protruded from a lower opening at the same time disappeared, showing that it was a continuous piece. A second portion three inches long was then extracted, a large cavity remaining, down which the finger could be easily passed. There was pretty free hæmorrhage.

March 5.—Erysipelatous inflammation of whole upper arm set in, but was subdued on exhibition of the tincture of the sesquichloride of iron. The wound made in the operation and all the sinuses soon healed, and she was discharged cured, with instructions to return in a few months to have something done to the elbow-joint.

She was readmitted February, 1863, for the purpose of excision, as the elbow was anchylosed so that the arm was in a the straight position. The wounds caused by the former operation were perfectly healed and sound.

February 14.—The H form of incision was employed at the operation of excision. The anchylosis between the humerus and ulna was osseous, but the cancellous tissue of the upper end of the ulna was so soft and dark coloured that a considerable portion of the bone had to be cut off. The cartilaginous head of the radius still existed. A little pus escaped during the operation, but no sinus existed externally. The flaps were united by iron wire sutures, and water dressing applied.

16th.—The wounds were dressed and looked healthy. No separation of the flaps had taken place.

23rd.—Some portion of the wound had healed.

March 4.—The elbow looked inflamed, and there was much constitutional disturbance. (A saline aperient mixture was ordered, with a calomel and antimony pill.)

7th.—There was a high state of fever. The edges of the wounds, including those which had united, had all opened out, and an extensive sore, of grey sloughy aspect, existed. She was also extremely feeble. Ordered two pints of milk, half a pint of beef-tea, and three ounces of wine.

9th.—The sore had extended further, and the edges were red and everted, the rest of the surface having a sloughy appearance. A yeast poultice was ordered to be applied.

11th.—The sloughing process had stopped, and healthy granulations were beginning to appear at the edges of the sore. ℞ Liq. am. acet., ʒj.; potass. nitr., ʒj.; spt. æther. nit., ʒvi.; aquæ camph. ad. ʒviij. Cap. ʒj. 3tis hôris.

27th.—The wound was now perfectly healthy again and contracting nicely; the general health quite good. The wound healed quickly, and she was discharged cured on April 23. The motion was more limited than it would probably have been had no untoward symptoms occurred, but a very fair amount of movement existed at the time of her discharge, which was a great improvement on her previous condition.

SALOP INFIRMARY.

CASE OF STRANGULATED INGUINAL HERNIA, OF LARGE SIZE, AND MANY YEARS' STANDING, PARTLY REDUCED BY TAXIS—DEATH—AUTOPSY AFTER DEATH.

(Under the care of J. D. HARRIES, Esq.)

It is singular that when strangulation of the intestine has been diagnosed, and attempts at reduction have failed, purgatives should be given. Yet we can state on good authority that it is not an uncommon practice. In one case we saw a few years ago, after trying purgatives by the mouth perseveringly for several days, with no effect, it was determined to operate. As, however, the operator could not attend for some hours, "in order to lose no time," a croton-oil enema was given. Of course it did no good, and the operation was performed. The patient died.

We constantly hear Hospital Surgeons lament that cases are not sent for operation at once, when taxis has had a fair trial, rather than several days after strangulation. Probably a great deal of the mortality is due not so much to the operation itself as to the unfavourable circumstances under which it is done.

These may seem simple points to allude to, but there is a real neglect in the treatment of such cases. At a recent meeting of the Medical and Chirurgical Society, Mr. Cooper Forster and Mr. Solly spoke most strongly on the unfortunate consequence of delay, and of long-continued and rough taxis, in many of the cases of hernia that came under their care at Guy's and St. Thomas's Hospital.

It is, perhaps, scarcely fair to make this case the text of the above remarks. It is evident that the purgatives were given in ignorance of the real nature of the case, as the Surgeon, while he prescibed them, had not seen the patient. When he did visit him he at once sent him to the Hospital.

[For the particulars of the following case we are indebted to Mr. Eddowes, the House-Surgeon to the Hospital.]

James T., aged 52, a native of Shrewsbury, was admitted under the care of Mr. Harries on July 5, 1863. He first perceived that he was suffering from rupture when 18 years of age, for which he wore a truss, but for the past five years has been without one.

On Friday night, when returning from work, he could not reduce the rupture, but did not mention the fact until next morning, when he sent for a Surgeon, who, being unable to visit him, sent some castor oil and opening pills. On Sunday morning the Surgeon visited him, and at once sent him to the Infirmary.

On examination there was found on the left side a hernia, about the size of a large fist, very tense, tender, and inflamed, extending along Poupart's ligament, not, however, pressing into the scrotum. At the external part, there was dulness on percussion; at the internal, resonance. No testis could be felt on this side. On the right side there was also a hernia, reducible, and the testis in the normal position. The pulse was very feeble, 120, and intermitting frequently. The bowels had not been relieved since Friday; there was also stercoraceous vomiting, with fœtor of breath, anxious countenance, and cold extremities. The taxis was at once tried without effect, and brandy with soda water freely administered.

The Surgeons having met in consultation, and chloroform been administered, the taxis was perseveringly employed by them. After a time part of the contents were reduced with a gurgling noise; the intestine was evidently returned. Still, however, a large mass remained in the external part of the sac, hard and lobulated, which resisted all attempts at reduction; crepitation was distinctly felt in the mass.

Owing to the alarming state of the patent, he was removed to a warm bed; the extremities became colder, and the pulse scarcely perceptible, and he died about an hour afterwards.

Autopsy after Death.—A hard mass of omentum was distinctly to be felt in the sac; on opening the latter, there was a large mass of the former bound down by old adhesions to the external part of the sac, inflamed, and crepitating when squeezed; no intestine remained in the sac. At the lower and inner part was an opening at the site of the external abdominal ring, quite free, and readily admitting the finger. On examining the omentum more carefully, partly incorporated with it there was a whitish, glistening body, much resembling a knuckle of intestine, and closely adherent to the upper and outer part of the sac, which, upon further examination, proved to be a testis arrested in its passage to the scrotum. It was perfectly healthy. On opening the abdomen, the stomach was found drawn down to its centre by the contracted omentum. The ascending colon was in its normal position, but the transverse and descending portions were drawn down to the lower part of the abdomen by the contracted omentum, a portion of them being much congested and close to the opening in the sac, this evidently being the strangulated portion of intestine. Some recent lymph was deposited on the peritoneum. No further disease could be discovered. On the right side also was a large hernia containing small intestine easily reducible. On this side the testis was in its normal position. The patient's death was caused by exhaustion, brought on by the constriction of the bowel, peritonitis, and vomiting, which was increased by the purgatives given.

Death from Chloroform in King's College Hospital.—On Friday, June 24, an inquest was held at King's College Hospital on the body of Mrs. E. Ruth, aged 29 years, who died under the following circumstances:—Chloroform had been administered to her in the Hospital with a view to the removal of a tumour in the urethra, but she died from the effects of the vapour. A question arose as to the quantity administered to her on a similar occasion two years before, and the absence of books of reference in such cases in the Hospital. The jury returned the following verdict:—"That the deceased died from the effects of chloroform," and the jury expressed their opinion that proper case books for reference should be kept in the Hospital.

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Medical Times and Gazette.

SATURDAY, JULY 2.

HOSPITAL MORTALITY.

The charge which Dr. Farr makes against Hospitals, that they are ways of death for patients, is one of serious import, and one demanding our closest consideration.

What we want to determine is, how much the mortality *in* any given Hospital is due to that Hospital. It is unnecessary to refer to the manner in which Miss Nightingale, following Dr. Farr, has reckoned the mortality of Hospitals. Instead of taking the number of patients in the year and comparing it with the number of deaths, they have taken the number of cases in Hospital on April 8, which they consider an average time as regards the fulness of these institutions, when they are not so full as in winter, fuller than in summer. Then they have taken the number of deaths occurring throughout the year, and distributed them among the beds so occupied; and their conclusion has been that for every 100 beds in 106 general Hospitals, the average mortality has been fifty-seven; that in the large metropolitan Hospitals it was as high as 90·84 per cent., or nearly one death to every bed; while in twenty-five country Hospitals the mortality was only thirty-nine. Ignoring, as does Miss Nightingale, the influence of infection and contagion, she attributes the high mortality to want of sanitary arrangements, imperfect ventilation, and the like. We confess that we cannot see the advantage of any process in statistics which sets about comparing dissimilar facts; and, therefore, unless it can be shown that the patients in any given institutions are exactly alike, we do not see that any just inferences can be got from a comparison of the death-rates of those institutions. Neither do we see that it is fair to say that the deaths *in* a Hospital are caused by the Hospital, until it can be shown what the results would be of treating a similar number of exactly similar cases *out* of a Hospital.

Mr. Charles Hawkins and Dr. Brodie, in dealing with the statistics of Queen Charlotte's Hospital, have adduced various reasons to account for the mortality complained of, irrespective of sanitary conditions, and with them most Hospital officers.

There are, then, two parties—the Sanitarians, who accuse Hospitals, and ignore the condition of the patients; and the Hospitalists, who lay the blame on the patients, and absolve the Hospitals. Let us consider the plaintiff's case first, and then hear the arguments for the defence.

We are met at the outset with a most overwhelming mass of independent evidence as to the mischiefs which *may* be perpetrated in Hospitals. It is a well-known fact that the mere overcrowding of patients with suppurating and offensive wounds will produce Hospital gangrene. The best examples of this have always been given by Military Surgeons after battles, when, the number of wounded being great, they have been obliged to be crowded together. When once established, it spreads very rapidly, and that the air is the medium of communication is very well proved by an incident related by Professor Burgmans, of Leyden, in 1798. Hospital gangrene existed in the lower ward of an Hospital in that city. In order to ventilate the ward, a Surgeon made an opening through the ceiling, and in thirty hours the disease had attacked the three patients in the upper ward who lay nearest the opening. In London, fortunately, this scourge has of late years been little known; but Professor Erichsen relates an instance in University College Hospital which fully bears out our observations. On one occasion one of his wards, intended to hold fifteen or sixteen patients, was occupied for *one night* by twenty-one persons, many of whom had suppurating wounds. Hospital gangrene broke out, and spread all over the institution, and was of a most serious and persistent character. Such, then, is clearly a way in which Hospitals may prove injurious to patients. But it is not only in these extreme cases that we can trace these results. In the little book, "A Light for the Line," is given an account of Thomas Ward, who had had his arm torn off and suffered amputation in University College Hospital. His blood was so poisoned by Hospital air that it was unable to supply the material for healing the severed arteries. He was advised to go home to escape the Hospital fever, and died from hæmorrhage in his cottage at Beckenham. Dr. Murchison has shown that during the first six months of 1862, 272 cases of typhus fever were admitted into six general Hospitals in London. These communicated the disease to seventy-one persons, of whom twenty-one died; and the manner in which erysipelas and pyæmia spread in Hospitals is too well known to need comment. The history of military Surgery has given some very useful lessons as to the origin of disease, and in several cases the results have been so similar that it is impossible to believe contagion had anything to do with the origin. The reports of Sir John Pringle, who wrote the history of the Netherlands Campaign, 1742-43, correspond with the observations of Guthrie in the Peninsular war, and they each state that in the early months—March, April—inflammation of the chest, rheumatic affections, and intermittent fevers prevailed;—that in May these began to abate;—that in June, July, August, the fevers assumed a remittent type, or a more severe form of intermittent;—that dysentery began to prevail before there was any fruit to be eaten, thus refuting one popular notion;—that as autumn drew on the fever became typhus in character, and the dysentery began to be fatal. Being once established, the fever spread with alarming rapidity, and the mortality became great.

On another occasion Guthrie expresses his objection to sending patients into Hospital, and his preference for treating them in the field, thus:—"The disadvantages of a general Hospital are, that the sick having to be sent long distances arrive in bad condition, that they are often unexpected and unprepared for, and overcrowding results." He tells an amusing tale with reference to a sergeant of the 40th Regiment, who left the camp at Torre del Mauro to go to the Hospital at Celorico, and before a Committee of the House of Commons complained of the hard-hearted Surgeon who refused to allow several other soldiers to go with him to the Hospital, they all being affected with ophthalmia. Guthrie happened to be present, and explained that while this man lost his sight, not one of those who remained in the camp had done so, and that he was the hard-hearted Surgeon in question. To deny, then, that Hospital air *may* be pernicious, is to fly in the face of all experience.

In now turning to the other side, we meet with much that must have weight in the consideration of the question, and yet which cannot be expressed in figures.

The patients who are admitted to Hospitals vary very much, from the besotted inhabitant of some of the courts of Whitechapel, or the purlieus of St. Giles's, to the strong able-bodied ploughman of our country districts.

It is not to be expected that the same disease would have the same result in each, nor can we conceive one equally with the other open to the attack of erysipelas or pyæmia.

Many patients go into our London Hospitals already affected

with the seeds of these diseases, but we cannot obtain any facts to contrast the effects which would result if such persons were left in their homes with the results of Hospital treatment. If not treated in Hospitals, they would not be treated at all.

Or again, if we look at the class of patients in a country Hospital, and compare them with those in a London institution, the most casual observer cannot help being struck with the fact mentioned by Mr. Yeo, that in country Hospitals the majority are able to get up or move about, while in a London one few are affected with maladies so slight as to enable them to do so.

To sum up, without wishing to lessen the responsibility of those who knowingly admit contagious diseases into the wards containing general patients, we must confess that, however perfect our organisation may be, however well our Hospitals may be ventilated, however strictly the sanitary arrangements may be carried out, cases of infectious diseases will occasionally be admitted, and the disease will spread. We must confess that diseases are from time to time engendered in them; that the air of the best Hospital is not what it ought to be; that if Surgeons would condescend to study chemistry they might absolutely neutralise the stench of excretions and discharges; that town Hospitals ought to be reserved for acute cases. But in spite of this we must admit that the Hospitals, even at present, are something more than "mere pathological observatories and Medical schools;" that many a poor sufferer obtains benefits there which but for them would be unattainable; and that Hospitals confer a real boon upon the inhabitants of London.

THE APPROACHING ELECTION AT THE COLLEGE OF SURGEONS.

At the coming election to the Council, the Fellows of the Royal College of Surgeons have a grave duty to perform. They have to declare by their votes whether the Council and Court of Examiners shall in reality be bodies representing the interests of English Surgical science in its broad sense, or merely the nominees of the London Hospital Surgeons. At the present moment we feel ourselves bound to reiterate the opinions we have before expressed. The Council of the College must no longer be a mere London Surgeons' Corporation, differing in name, but in little else, from the Worshipful Company whence it took its origin. The Council is the body from which a Court of Examiners, whose fortune it is to admit the greatest number to the Medical Profession of this country, are chosen. The choice is from their own number, and rests in their own hands. The manner in which they have used the power thus reposed in them is exemplified by the narrow escape of Mr. Kiernan from non-election and the deliberate mode in which they ignored the merits of Mr. Gulliver at the last election, in favour of a gentleman whose sole claim was that he was a teacher in a London school and a Surgeon to a London Hospital. These are instances of the way in which the highest interests of science are set at nought when they are opposed to the personal ones of the narrow oligarchy that rules the College. Let it be remembered that it is only through the Council that the great body of Fellows can influence the composition of the Court of Examiners. The Medical world has lately been scandalised by the revelations of the incompetency of candidates who have presented themselves for commissions in the public service. That incompetency reflects disgrace on the students, on the whole system of Medical examination, but chiefly on the examining bodies of this country, of which the Lincoln's-inn Court is the foremost. It is for the Fellows to declare whether this state of things shall continue. If scientific achievement is not allowed to weigh in the scale against personal connexion or Hospital influence, it is evident that the Court of Examiners must degenerate into a mere mart for licenses. We especially draw the attention of the Fellows of the College to the letters addressed to them by Surgeon-Major Judd, of the Guards, and Staff-Surgeon Loney, of the Royal Navy, which we elsewhere publish. We state without fear of contradiction (and without disparaging in any degree the professional labours and acquirements of those gentlemen) that not one of the five other candidates has anything approaching the scientific *prestige* of Mr. Gulliver, whilst his capacity as an Army Surgeon gives him, on public grounds, at this particular juncture, the highest claim. In addition, by placing Mr. Gulliver high at the poll the Fellows will best intimate their disapproval of the treatment he has received, and of the influences by which the elections into the Court of Examiners have hitherto been governed.

THE WEEK.

A NETLEY PROFESSOR ON ONE OF MR. GULLIVER'S SCIENTIFIC DISCOVERIES.

Professor Aitken, in describing the gradual progress of knowledge of the mechanism of blood diseases, thus refers to Mr. Gulliver's share in the work:—

"After Cruveilhier's observations, the next link in the chain of evidence regarding the nature of *metastatical dyscrasiæ* was established by an arduous worker, then in the Army Medical Department, now a distinguished Professor in the Royal College of Surgeons of England—namely, Mr. Gulliver, formerly Surgeon of the Guards. He showed that the puriform mass in the interior of clots does not originate in the wall of the vessel or clot, but is produced by transformation of the central layers of the clot,—a transformation which may be imitated, as he did, by a chemical process. Mr. Gulliver examined the clots microscopically, and found that the fluid was not pus. Now, this is the point from which Virchow starts—namely, the character of the contents of these clots,—a puriform, but not a purulent substance, as Gulliver first showed, composed of granules chiefly."—*Science and Practice of Medicine*, vol. ii.

ARMY MEDICAL DEPARTMENT.

We have never been able to understand on what grounds Medical officers are denied all military rank. There is no danger that the Medical does not share with the combatant officer, and the Army Surgeon runs more risks from the diseases of tropical climes than does the combatant from the bullets of the enemy. Some very startling illustrations of the truth of this statement were given in the late debate on Ashantee war. We already possess the names of six Medical officers who have fallen victims in that inglorious little campaign. The amount of disease and invaliding among the Medical officers who have served in tropical climates is very great; and the extraordinary rate of mortality among young Army Surgeons generally attracted Mr. Neison's attention many years ago. In his "Contributions to Vital Statistics" it is stated that the mortality was found to be largely in excess at the youngest ages, being more than four times above the average of England and Wales at the same ages. Is it not disgraceful, then, that the Government should curtail the Medical officer's short service at home, as is now being done by the introduction of Acting Assistant-Surgeons? These gentlemen, we may hope, can hardly be aware of the gross injustice to which they are subjecting their army brethren. We learn that Acting Assistant-Surgeons are now being distributed over Great Britain, and every post they assume will be held at the expense of an Assistant-Surgeon, who has been subjected to a competitive examination. We have heard that great exertions are being made to supply the wants of the department from the Irish schools, and that everything is being done to entice Irishmen to appear at the August examination. We happen to know a few Army Surgeons who are Irishmen, and we may confidently state that they are not the least disaffected nor the most reticent members of the department. Faith and hope are strong, but we question whether these will be found to triumph over experience. This we can say, that there never was a time, since

the Army Medical Department had an existence, when the dissatisfaction was so great or so general. Men are beginning to perform their duties like machines, wound up for twenty-five years (if the mainspring of life last so long), without emulation or interest. War may yet arise out of the Danish question, and we may expect a re-enactment of all the miserable failures of our Crimean experience, with Chelsea Boards again, which will throw all the blame upon an inefficient Medical staff, in the face of evidence still stronger than that adduced before that memorable commission.

ARMY SURGEONS IN AMERICA.

"On account of the present depreciation in paper currency," says the *American Medical Times*, "the pay of our Surgeons is necessarily narrowed down to quite a small figure, and the acting Assistant-Surgeons, who, as far as remuneration is concerned, are at the bottom of the list, necessarily suffer the most. This being the case we can easily understand why the demand for this class of Medical labourers is still urgent. Until the Government chooses to increase the pay, it cannot expect to have its wants supplied. No respectable Practitioner can, for simply a hundred dollars a month, be tempted to leave his business for any length of time, even for temporary service; and the Hospitals of the country will necessarily soon get filled with young, irresponsible Medical striplings. If the Government wishes first-class men, it must pay first-class prices." "*Cœlum non animum mutant qui trans mare currunt.*" It is not here alone, "under the cold shade of an aristocracy," that the Medical service is ill-paid and despised.

FRENCH EDITION OF DR. STOKES' WORK ON THE DISEASES OF THE HEART AND THE AORTA.

A very ably-executed and correct translation, by Dr. Sénac, of Vichy, of the above classical work has just appeared in Paris. The translator having remarked, in a short but pithy preface, upon the tendency of the writers of the present day to study Medicine too exclusively in its scientific, as distinguished from its practical, bearings, proceeds to point out the peculiarities of the work whose translation he has undertaken. Foremost among these peculiarities he notes its highly practical character.

"In taking," he says, "as the basis of his work the results with which his long practice has supplied him, Stokes places himself at once upon a vantage-ground singularly favourable to the development of clinical teaching. In the first place, he imprints upon his book a stamp which is sufficient to insure its success. Original works are rare, and form a pleasing contrast to those more or less disguised compilations which every day multiplies. Hence a book which is not made out of the books of others is uncommon enough to be remarked upon. And in this instance the reader cannot be deceived. The author makes us follow, step by step, the intellectual labour which has formed and has developed his convictions. He puts us face to face with the obstacles against which he has had to contend—obstacles with which we come into collision every day—and he points out to us the means which he has employed to overcome them. If he retains doubts, he states them with rare frankness. A conscientious observer, he seeks truth with so much the more chance of finding her, as he does not believe in his infallibility, applying to himself the maxim that in Medicine, above all, to doubt is to learn."

PARLIAMENTARY.

On Friday, June 24, the House of Commons went into committee upon the Chimney Sweepers Regulation Bill, the clauses of which were agreed to.

On Monday, June 27, in Committee of Supply, the following votes for Medical charities in Ireland were agreed to:—£2272 for Public Infirmaries, Ireland. £2600 for Westmoreland Lock Hospital. £700 for Rotunda Lying-in Hospital. £200 for Coombe Lying-in Hospital. £7600 for House of Industry Hospitals. £2500 for Cork-street Fever Hospital. £600 for Meath Hospital. £100 for St. Mark's Ophthalmic Hospital. £1300 for Dr. Steevens' Hospital. £245 for Board of Superintendence and Dublin Hospital.

The Chimney Sweepers' Regulation Bill was read a third time and passed.

The Contagious Diseases Bill was read a second time and remitted to a select committee.

The Factory Acts Extension Bill passed the Committee.

On Tuesday, June 28, in the House of Lords, Lord Wodehouse moved the second reading of the Superannuation (Union Officers) Bill, the provisions of which he briefly explained.

The Bill was read a second time.

The House of Commons went into committee upon the Lunacy (Scotland) Bill.

In answer to some objections by Mr. Smollett and Sir J. Fergusson, the Lord-Advocate assured the House that the Bill was merely one of continuance. He was far from saying that the machinery of the Board was perfect, but he was convinced that since the institution of the Board an end had been put to evils which were a scandal to the country, and a great and beneficent change had taken place in the management of lunatics. He did not see his way to any reconstruction of the Board at present. He felt sure that the hon. gentleman would allow that the services of the deputy-inspectors were absolutely indispensable, and he did not think that £600 a-year, as provided by the Bill, was too great a salary for them.

The clauses were ultimately agreed to, and the Bill passed through committee.

Mr. Doulton called attention to the gradual diminution of open spaces in and around the metropolis, and moved a resolution that it is the duty of Her Majesty's Government to provide for the preservation of such open spaces within the limits assigned by the 14th section of the Inclosure Act of 1845. He thought that, as the Metropolitan Board had neither the power nor the duty to undertake this work, the Government should deal with the matter by introducing a bill for the purpose.

Mr. Peel observed that the duty of the Government in this matter had certain limits, and it could not act without legal authority, and when a bill was introduced the House dealt with the question as it thought proper. Mr. Doulton, he said, was mistaken in supposing that there had been a diminution of open spaces; the Government had shown every regard for the claims of the metropolis.

After a few observations by Mr. Locke, Sir W. Fraser, and Mr. Torrens,

Mr. Cowper remarked that the passing of the resolution would not bring them nearer to a solution of the question, and that a better course would be the appointment of a committee to inquire into the subject.

Upon a division, the resolution was carried by 79 to 40.

FROM ABROAD.—DEATH OF RUDOLPH WAGNER—PROFESSOR CZERMAK'S PHYSIOLOGICAL INSTITUTE—EMBOLI CAUSED BY FRACTURE—DETECTION OF DIGITALINE—ACTION FOR MALPRAXIS IN PARIS.

One of the great German celebrities, Rudolph Wagner, has recently passed away. Born in 1805 at Baireuth, he was first appointed Professor of Zoology at Erlangen in 1833, and in 1840 he received a call to Gottingen University, where he became Professor of Physiology, together with Comparative Anatomy and Zoology, a post he held until his death. The discovery of the tactile corpuscules is ascribable to him; but his position as a great physiologist has been much contested by the Materialist school in Germany, of which he was an opponent. He early became well known in this country from his "Physiology" having been translated by Dr. Willis; and the "Dictionary of Physiology" which he edited, containing contributions from some of the leading physiologists, is still held in high repute.

Professor Czermak, the eminent physiologist, who made so favourable an impression during his recent visit to this country, having resigned his Professorship at Pesth, has returned to Prague, his native place, there to devote himself to a scientific career. He has erected, at great expense, a magnificent private physiological institute and laboratory, furnished with every appliance for the carrying on of scientific discovery, enriched by all the experience its founder has already derived from his residence at the institutes of Cracow and Pesth.

The edifice is of sufficient size to accommodate a great number of pupils or fellow-workers who may wish to pursue their respective inquiries; and there is a theatre attached, capable of containing an audience of more than a hundred. Awaiting the time when lectures will be delivered here, Professor Czermak has determined upon publishing occasional communications, under the title of "*Mittheilungen*," from time to time, which will give an account of what is going on at the new institution. The first number, among other subjects, gives the results of investigations on the action of curare and upon the arterial pulse.

Dr. Azam, of Bordeaux, read a paper at the Academy of Medicine upon sudden death from pulmonary emboli in contusions and fractures, and terminated it with these conclusions:—1. Fractures and contusions may give rise to sudden death through pulmonary embolism. 2. The emboli originate in a thrombosis of the veins of the injured region, itself due to the absorption of effused blood. 3. These thromboses, or the phlebites which precede them, are generally latent, and are of more common occurrence than would at first sight be supposed. 4. The exploration by means of the finger of the track of the veins can alone demonstrate their existence. 5. Sudden pulmonary accidents, as dyspnœa, hæmoptysis, precordial pain, syncope, etc., indications of the presence of an embolic coagulum of varying size, may direct the attention of the Surgeon to the phlebitis. 6. In venous thrombosis the coagula are more or less adherent, and the plasticity of the blood is proportionate to the solidity of the adhesions. Fractures compelling repose are unfavourable to plasticity. 7. The various movements of the parts, and the application of the apparatus, may favour the detachment of the coagula. 8. The Surgeon should investigate whether, from the fifteenth day, in cases of fracture and contusion, latent phlebitis does not exist. 9. If this is discovered, rest, antiphlogistics, and an alkaline treatment are indicated.

As digitaline is the order of the day, in consequence of the use made of it by La Pommerais, we may notice a communication made by M. Jules Lefort to the same Academy upon the detection of this substance. He says:—1. That there are employed medicinally in France two kinds of digitaline, possessed of very different chemical and physical properties, the German or soluble and the French or insoluble. 2. Soluble digitaline becomes more slowly and less deeply coloured green by the agency of hydrochloric acid than the insoluble. 3. Hydrochloric gas colours insoluble digitaline of a deep green, and the soluble of a deep brown. 4. It also develops with the insoluble digitaline, the special odour of powder or tincture of digitalis, but this character is less appreciable in the soluble. 5. Under the microscope soluble digitaline exhibits the vestiges of crystals of an indeterminate form, while the insoluble shows an opaque magma of a granular aspect, representing a mixture of two substances at least. 6. Soluble digitaline seems to be a better defined and purer product than the insoluble. 7. The principle which becomes coloured green by the agency of hydrochloric acid appears to be independent of the digitaline itself, whether soluble or insoluble. It is, without doubt, volatile, and the same which gives the digitalis its special odour. 8. These two varieties of digitaline dissolved in water and alcohol traverse collodial membranes, and may be separated by dialysis from the matters which contain them, whether naturally or accidentally. 9. The bitterness of soluble and insoluble digitaline, their coloration by hydrochloric acid, and the odour of digitalis which they give out under the action of hydrochloric gas are characters which enable us to affirm their presence in matters which only contain them in small quantities.

M. Grandeau also, in a recent communication to the Academy of Sciences, gives an account of the experiments which he has made with Mr. Graham's mode of analysing by dialysis, and states that, aided by this, even the minutest portions of morphine, bromine, or digitaline cannot in future escape the researches of the toxicologist.

A curious question relating to Medical responsibility has just been decided in the Paris Appeal Court. It appears that some time since a man and his son became patients at the private clinic of M. Desmarres, the celebrated Paris oculist, in which some 10,000 cases are annually treated, and after a while the father lost both and the son one of his eyes, in consequence of purulent ophthalmia. The patient proceeded against M. Desmarres before the Correctional Police, claiming 10,000 francs as compensation. This tribunal decided against him, but, in doing so, expressed its regret at finding that the attendance at the clinic devolved upon M. Desmarres' son, a young man twenty-two years of age, and then only a student, though since become a doctor of the Montpellier Faculty. Hereupon, the patient instituted a civil action, laying his damages at 60,000 francs, and the Court before which it came on for hearing declared that if, by any negligence of M. Desmarres or his agents, the patient became the subject of contagious disease, or what was a curable and mild affection degenerated into an incurable and dangerous one, reparation could be obtained. The plaintiff declared that he had been exposed to the presence of persons with contagious affections of the eye, and that he had been unskilfully treated, having, in fact, received only the attentions of the young Desmarres, when he had been led to expect those of so experienced an oculist as M. Desmarres, sen. This last plaint was at once put aside, inasmuch as he became aware from the first day that M. Desmarres *fils* managed the Dispensary, and he was at liberty, if not content therewith, to discontinue his attendance. But to enable it to decide whether the other allegation was correct, namely, that a simple disease of the eye was by needless exposure or neglect of treatment converted into a dangerous one, the Court proposed to submit the matter to MM. Nélaton, Béhier, and Richet as experts, who should declare under what diseases these patients laboured when they entered M. Desmarres' clinic, together with the nature and causes of the transformation they underwent; how far contagion had been operative, and whether the necessary care and skill had been bestowed. Against this decision M. Desmarres appealed, declaring that, however cheerfully he would submit to the critical appreciation of the eminent men named by the tribunal, what was now demanded at their hands was a pure impossibility. These patients had lost their sight from purulent ophthalmia, and there was really nothing for experts to determine upon. The Court of Appeal took this view of the case, declaring that a retrospective examination of treatment of a disease, the nature of which there is no proof of, is impossible to be made by the aid of experts and witnesses in a satisfactory manner. And thus this cause, which has been pursuing its harrassing course over two years, terminated in favour of the defendant, who we fear will, as is usually the case on such occasions, be yet considerably out of pocket.

THE LONDON HOSPITAL.—We understand that the Prince of Wales will lay the first stone of the proposed new wing of the London Hospital on July 4, and that the Princess has graciously consented to accompany him. After the ceremony their Royal Highnesses will be conducted to a marquee. Refreshments will be provided for a large number of guests. His Royal Highness the Duke of Cambridge will preside.

UNIVERSITY OF DUBLIN.—At the summer commencements held on Wednesday, the 29th ult., in the Examination Hall of Trinity College, the following degrees in Medicine and Surgery were conferred:—*Baccalaurei in Medicinâ.*—Edvardus Georgius Clark, Austin Henricus Nicholls, Johannes R. R. Coulter, Isidorus Bourke, Georgius Fleetwood Churchill, Robertus H. Macloghlin, Carolus F. Green, Johannes Alex. Wilson, Georgius F. Duffey, Johannes P. Boileau, Johannes M. Finney, Henricus King (*Diploma*, 1855). *Magistri in Chirurgiâ.*—Robertus H. Macloghlin, Georgius F. Duffey, Johannes Lyons. *Doctores in Medicinâ.*—Guilelmus R. Wilde, Eq. (*Honoris causâ*), Edvardus H. Bennett (*stip. cond*), Johannes Ringland, Johannes Eustace.

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THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF BIRMINGHAM.

Whatever may be said against the Tudors, though Mr. Froude may pronounce on them anathema, and all the world may stamp them as tyrants, it can never be denied that they had one virtue not common to tyrants generally—I mean a tyrannical love of learning. Bess the Queen, not good, not very strong, not over virtuous, could at all events declaim Demosthenes with any scholar of her day. Mary, not so bad as we are given to say, not strong, but virtuous, was profound in the Latins; and Bluebeard Harry, very bad, very strong, and everything that was apart from virtue, had, notwithstanding, a desire *to know*. Among such good deeds as he did perform let us give him credit for one—viz., that through an act of his we gain access to a few lines of information in respect to the town of Birmingham in the time of his reign. In order to gratify an antiquarian and learned taste, Harry took out of the, —I shall not be far wrong if I say it,—the *swamps* around Calais one John Leland, a clergyman there and antiquary, and, after showing him great favours, made him "Antiquary Royal." Further, and in order that John Leland, Antiquary Royal, might do something good and practical, Harry gave him *carte blanche*, together with a fair purse, to "itinerate" about England and get up all the information he could, and if he liked, I suppose, put his information into what would now be called a blue-book. In this way, as travelling Antiquary Royal, Leland gathered much history, and although he went insane before he printed what he learned, he left behind him MSS. which, since collated, make up nine volumes—"The Itinerary of John Leland."

In this Itinerary we find one of the first reliable notices of Birmingham, for John Leland went there and rather liked the place. He describes it briefly thus:—

"The beauty of Birmingham, a good market town in the county of Warwick, is one street, goinge up alonge, almost from the left ripe of the brooke, up a mean hill, by the length of a quarter of a mile." In another place he says, speaking of his visit to the town:—"I came through as pretty a street as ever I entered into Birmingham town. This street, as I remember, is called Dirtey or Deritend. In it dwell smiths and cutlers, and there is a brook that divides this street from Birmingham, an hamlet, or member, belonging to the parish therebye." Also he tells of the state of trade then. "There be many smithes in the town that use to make knives and all manner of cutting tools, and many loriners that make bittes, and a great many naylers, so that a great part of the town is maintained by smithes, who have their iron and sea coal out of Staffordshire."

Hutton, whose history of Birmingham is the classical authority, strikes out a curious picture of the town in its primæval state. It is clear that Hutton, without any geologist to back him in his theory, took an extremely wide and original view as to the period during which man has existed on this planet; for he speaks of Birmingham and its thousands of years of history, as he might now speak of its thousands of fire-irons, nails, steel pens, or knives. "If the curious reader," says he, "chooses to see a picture of Birmingham in the time of the Britons, he will find one in the turnpike road between Halesowen and Stourbridge, called the Lie Waste, *alias* Mud City. The houses stand in every direction, composed of one large and ill-formed *brick*, scooped into a tenement, burnt by the sun and often destroyed by the frost; the males naked; the females accomplished breeders. The children at the age of three months take a singular hue from the sun and the soil, which continues for life. The rags that cover them leave no room for the observer to guess at the sex. Only one person upon the premises presumes to carry a belly, and that is the landlord. We might as well look for the moon in a coal pit, as for stays or white linen in the city of mud. The principal tool business is the hammer, and the beast of burden is the ass."

Quaint, and to a certain extent fanciful as is this description, it is probably in the main true. When the time was that man, advancing in civilisation, passed from the age of stone and bronze to that of iron; when for the flint head rudely cut and fixed with hemp, or twist of twigs, he turned out of the fire the cutting iron head, and fixed it by its heated socket on his staff; when he thus made, for war or the chase, an iron pike or shaft, we have no true history. All we can say is, that it was long since, beyond modern calculation or conception, and that it was the forerunner of a change in the arts of life of which the mind can form, at the moment, no adequate conception.

The first working of iron! Let us think on it. Who worked iron first for the foot of the horse, and by so doing made that animal our peaceful and glorious slave? Who discovered that iron could be moulded and drawn out into lengths, so that in ages to come it should be the groundwork and network of roads over which men should almost fly—nay, that it should become the extension of the very nerves of the human organism, so that on it messages should travel with the velocity of thought itself from mind to mind? Who first made hoops for barrels that should hold the poor store of wine or of grouty beer, and at last suggested those vast girders which now span rivers and even seas? Who knocked the first hole through the molten metal and gave the elementary touch to that skilful carving and designing in iron which now advances ironwork into the highest art? Who did these things with iron, and a thousand more? Who?

Nothing gives to the world so great an antiquity as its ironwork, and Mr. Hutton may well be excused for having depicted primitive Birmingham as a mud city whose people worked iron. Certain it is that the first iron workers would be those who lived where iron was found, and if Mr. Hutton had said that Tubal Cain himself was a Birmingham man there would be considerable difficulty in refuting the hypothesis. We may accept that the town in long ages did lie out as a poor hamlet of mud houses with the anvil opposite each tenement, and the fire flying and the hammer ringing all day long, and generations coming and going, and each doing very little to improve their art, and yet doing something, until at last, after vast epochs, an art is educed at Birmingham, and a town of iron art is recognised.

The town itself was originally called Bromwych. Hutton derives the term from the words "brom," a broom or shrub, for the growth of which the soil is favourable, and "wych," a dwelling on a descent. This exactly corresponds with the declivity from the High-street to Digbeth, assumed to be the original site of the town. Others consider the town to have taken its name from the Brummings or Broomings, a race supposed to have settled there. But, in fact, these ideas as to the origin of the name are purely hypothetical, and so much has opinion varied in respect to the exact spelling of the original word, that one man undertook to spell it in 118 different ways. Whatever the source of the name, one point seems admitted, on the which the true native of Birmingham may perchance pride himself—viz., that the place was never in the possession of one supreme lord and master, who gave to it his own seal and title. From its first to its last it has been a free town—a working-man's town, as it is now, with rich men and powerful men in and near it, but none who ruled it despotically. The Roman thought it, probably, too inaccessible to merit his notice, although he seems to have had a small station there, and a road which still exists in the suburbs of the town; the Saxon Thane thought it too small and too poor to trouble himself about claiming it; the Dane never reached it; and the Norman looked on it as beneath his discovery and appropriation. A mud village with roads leading to it that could not be traversed eight months in the year, and no spoil when you got into it; what was that for a Norman lord?

Throwing aside the legends of Birmingham in its first days, remembering it only as a retired hamlet or village on a spot where iron was plentiful; recalling its aborigines as a people born to a particular labour and slowly improving in their work, unmolesting and unmolested, we find them, as Leland has told us, owning in the reign of Henry the Eighth, a little market town with one fine street and abundance of smiths' shops, where worked cunning artificers who were content to live and die as their fathers had lived and died before them. They had also now a beautiful church—a sure sign of advancing civilisation.

After the visit of Leland we hear little of Birmingham until the time of the great revolution of England in the reign of the first Charles. By this period, however, the town had become of importance, trade had evidently extended into it

rather largely, and a school had been raised in it—one of those known there, as at Saffron Walden and other towns, under the name of Edward the Sixth's school. It has been suggested that Birmingham had already become famous for the manufacture of swords and firearms, and that both the Royal and the Parliamentary armies were supplied from it with weapons. I remember also there is a story to the effect that the swords of those immortal Ironsides, whom Cromwell never led out except to victory, were "Bromwychum tools;" but for these suspicions there are no reliable evidences. Of this, however, we may be certain, that, if the men of Birmingham did not arm the Ironsides, it was from no deficiency of will; for in the civil war they were staunch to the Parliament, and suffered, as would be expected, for their principles. A people that knew nothing about lordly domination had no idea of being unjustly taxed or of becoming the mere slaves of the King—a people at the same time but little skilled in warlike arts, they were powerless before the troops of dashing Prince Rupert, who, when he came down upon them in 1643, sacked, plundered, and burned their town, as he alone at that time knew how to sack, plunder, and burn. For all that the people were not conquered: the same elements that are in Birmingham now were there then, and in the midst of their troubles the people held on truthfully and unshaken. During the Protectorate of His Highness Cromwell but little opportunity was given for progress. Not that the greatest man who ever ruled England forgot at any moment the useful arts, or withdrew his favour from those who cultivated them, but that the place had to recover itself from its previous losses, and having entered into communication with the world around, it had to learn some special art that should raise it into fame.

How it learnt an art of this nature is a curious feature in its history. One would have said, These hard men will forge heavy goods, arms of all kinds, and implements of great power; one would have thought that, whatever others might do when grim-visaged War had smoothed his wrinkled brow, they would have continued as they were, working as of old, and as though there was always war. Not a bit of it; it was in the days of peace, when peace was worse than the worst of war, that the trade of Birmingham received its first great impulse. When his Highness the Lord Protector slept with his fathers, when Richard Cromwell had retired to private life, and smoked his pipe sitting on his great box of loyal addresses "to his office and person," and laughed the while at the folly of the world's homage; and when the Second Charles, landed and settled in his state, capered nimbly in his ladies' chamber to the lascivious piping, not of a lute, but of every sound and whim that could create a sensational novelty, then Birmingham began to come out as a commercial town *in the toy line*. Absurd, is it not? but none the less true. It was like the revival of a lost, or the discovery of a new art; it was, in fact, the revival of an art almost lost, which, in England, had never been much known or cultivated, and which in Italy and France had, to a considerable extent, declined. Started at last in England, at a time when pleasure was the order of the day, and when nothing too trivial was considered too unimportant, toy making quickly became a business of great extent, and Birmingham, as its centre, was heard of all over England, and wherever in the world Englishmen wandered. And not only did she open this business, but she has held it, and made it to this day profitable. Now there are in Birmingham 135 persons who live by the manufacture of toys, and in England altogether there are only three rival localities in the trade—viz., Bethnal-green, Shoreditch, and St. Luke's, London. In the first of these there are 152 toy-makers; in the second, 87; and in the third, 71; so that Birmingham, as a toy-shop, stands second only to Bethnal-green.

The town now continued to advance in people and in riches, and at the period of the accession of George the Third to the throne it numbered nearly four thousand houses. Three years prior to the death of George the Second a little place had been founded at Handsworth, and named Soho. Five years later this came into the possession of Matthew Boulton, and later still Boulton divided the honour of that possession with the great James Watt, who, as the learned Beckman puts it, "gave to senseless matter an almost instinctive power of self-adjustment, with precision of action more than belongs to any animated being." The opening of the Soho establishment marks an era in the history of Birmingham. It soon became a magnet that drew towards itself and the town active men who were engaged in mechanical and commercial pursuits; it embraced in itself almost every element in mechanical art, and from it sprang forth, and around it gathered more branches of human industry than have ever been known in any other town of the world of which we have knowledge. Here the lost skill of the Egyptian, the Assyrian, the Phœnician, the Greek, and the Italian was regained, and thereto was added such might by the discovery of a means of producing force to which there is no reasonable limitation, that the revivified skill came forth as the skill of a man compared with that of a child.

Schools now also became prominent in the once mud town; a Blue-coat School had risen into fame and usefulness. To it and the Grammar School of Edward VI. the townspeople could turn with much pride. Nor were there long wanting other and many supplementary establishments in which all branches of knowledge were taught, and specially those practical branches on which the future of the town should rest.

In a few years it was found convenient that a sick Hospital should be raised, and accordingly, in 1766, the Hospital, still known as the General Hospital of Birmingham, was founded.

No differences disturb the progress of Birmingham from the time named above until the years 1789-95. In those years the town suffered more than most towns of this kingdom from the shock of that great political quake the French Revolution. In these years, while Warren Hastings was standing out for impeachment, while Wilberforce was urging the abolition of the slave trade, while Mr. Grey was hammering at Parliamentary reform, while Mr. Fox was crying out for peace with France, while Mr. Pitt was calling for a Volunteer corps, and Dissent was becoming a great fact through the labours of the Wesleys, it were impossible for a town that had never known a master to escape without agitation. It did not escape; a storm that had been brewing broke out in 1795, and riots, which cast for a time a dark shadow over the thriving place, led to results which are hardly yet locally forgotten.

These riots are interesting to all men of science, owing to the position in which one of the greatest of benefactors to science was placed on the occasion: I refer to Dr. Priestley, the immortal discoverer of oxygen gas, and the founder of the pneumatic method of research in chemistry. Priestley had been placed in the duties of a minister of religion in Birmingham. At the suggestion of Dr. Fothergill, which suggestion had been warmly seconded by Dr. Heberden, he had been sustained in his experimental pursuits by a grant of money, to which many excellent and learned persons had subscribed. The grant was continued annually. At Birmingham Priestley was for a time most happy. Here he met Mr. Watt, Mr. Keir, Dr. Withering, Mr. Boulton, Dr. Darwin, and Mr. Galton, who together formed a society, called the Lunar Society, because the members met each month near the full moon. Having a congregation that had no objection to a scientific pastor, Priestley laboured here experimentally with great success. Unfortunately for his own comfort, he had united himself to the extreme order of the Dissenting section—the Unitarians—and thereby rendered himself the most conspicuous object for the attacks of the Church and Court party. An agitation arose about this time, political in its nature, and having reference to the "Test Acts." Indeed, in another form, very little changed, the discussion continues to this day. But at that time it was extremely vehement, and in Birmingham the churchmen lost no pains to keep the flame alive. Priestley being then one of the celebrities of England, and the leader of the extreme Dissenting body, no efforts were spared to fix upon him all possible obloquy. The result was that in 1791 an infuriated mob burnt down his meeting-house, his dwelling-house, his library, and all his apparatus; and Priestley himself was obliged to fly to London, or he perhaps had been burnt as well as his houses and books.

The description of the burning of the house of Dr. Priestley, and of the cause of the riot, is thus described by himself in a book now extremely rare—his autobiography to the year 1795:—

"About two years before I left Birmingham the question about the 'Test Act' was much agitated both in and out of Parliament. This, however, was altogether without any concurrence of mine. I only delivered and published a sermon on November 5, 1789, recommending the most peaceable method of pursuing our object. Mr. Madan, however, the most respectable clergyman in the town, preaching and publishing a very inflammatory sermon on the subject, inveighing in the bitterest manner against the Dissenters in general, and myself in particular, I addressed a number of 'Familiar Letters to the Inhabitants of Birmingham' in our defence. This produced a reply from him, and other letters from me. All mine were written in an ironical and rather a

pleasant manner, and in some of the last of them I introduced a further reply to Mr. Burn, another clergyman in Birmingham, who had addressed to me 'Letters on the Infallibility of the Testimony of the Apostles,' after replying to his first set of letters in a separate publication.

"From these small pieces I was far from expecting any serious consequences. But the Dissenters in general being very obnoxious to the Court, and it being imagined, though without any reason, that I had been the chief promoter of the measures which gave them offence, the clergy, not only of Birmingham, but through all England, seemed to make it their business, by writing in the public papers, by preaching, and other methods, to inflame the minds of the people against me; and on occasion of the celebration of the anniversary of the French revolution, on July 14, 1791, by several of my friends, but with whom I had little to do, a mob, encouraged by some persons in power, first burned the meeting-house in which I preached, then another meeting-house in the town, and then my dwelling-house, demolishing my library, apparatus, and, as far as they could, everything belonging to me. They also burned or much damaged the houses of several Dissenters, chiefly my friends.

"Being in some personal danger on this occasion, I went to London; and so violent was the spirit of party which then prevailed, that I believe I should hardly have been safe in any other place."

Since these days Birmingham, always a liberal town, has advanced in liberality, and another such riot need never be dreaded; but she has yet one duty to perform, one error to rectify,—She has to imitate Oxford by raising a public monument to Priestley. Opposite the Queen's Hotel, there is a monument to a good man; but Priestley was wise as well as good; in some points he was the greatest philosopher of the past, and on all points a man whom it would do Birmingham honour to honour.

As the town grew in size and wealth, it became subject to serious outbreaks of epidemic diseases; and I may mention in regard to these that, in the years 1797, 1798, and 1799, it suffered severely from a form of enteric fever, which would probably now be classed under the head "typhoid." This fever was described to the Profession by a most able Physician, Dr. Pearson, who, in December of the year 1799, published a book through Seeley, then the great London Medical publisher, on the whole subject. The fever was named by Pearson "a bilious fever," and he describes the symptoms by which it was marked with much precision. In the first stage, according to his observation, the fever did not appear to be contagious, but it was evidently so after the eleventh or fourteenth day, when the typhoid state was induced. At this period it spread, in many instances, through whole families. The contagious nature of this fever procured it very generally the name of typhus, from which, however it differed (1st) in being accompanied, during its first stage, with little muscular debility; (2nd) in being accompanied with a more tense pulse; (3rd) with more violent headache, vomitings, and sensibility of the stomach; and (4th) in being, for the most part, of a remittent or intermittent type. Unlike typhus, it not only bore, but required, large evacuations upwards and downwards, and some loss of blood. A diarrhœa (he continues) so frequently hurtful, and even mortal, in typhus, is, in this fever, for the most part salutary.

On the progress of Birmingham during the present century I have no time to dwell; and, indeed, it were no part of my business so to dwell if the time were at my disposal. I have done enough to make the reader acquainted with the history of the town *in limine* from its beginning to our own day. It remains, therefore, only for me to sketch out, in accordance with my general plan, the population of the place, the divisions of labour of its people, its registration districts, and its general outline.

Taking the whole of the population above 20 years of age (including 114,239 persons, and dividing it into six classes—viz., the professional, the domestic, the commercial, the agricultural, the industrial, and the indefinite or non-productive classes—we find it distributed as follows:—

1. *Professional Class.*—2542 persons, or 2·2 per cent.
2. *Domestic Class.*—40,934 persons, or 35·8 per cent.
3. *Commercial Class.*—5957 persons, or 5·2 per cent.
4. *Agricultural Class.*—1216 persons, or 1·1 per cent.
5. *Industrial Class.*—57,988 persons, or 50·8 per cent.
6. *Indefinite and Non-productive Class.*—5602 persons, or 4·9 per cent.

If we analyse the above figures, as bearing on the principal branches of industry followed in Birmingham, we find, according to the last census, 1861, the subjoined facts:—

Occupations of Birmingham, including those for which it is specially noted, classified according to sex.

	Number of persons aged 20 years and upwards.		
	Males.	Females.	Total.
Brass founders	2757	—	2757
Gun makers	2641	—	2641
Button makers (all branches)	1130	1415	2545
Iron manufacturers	1075	27	1102
Engine and machine makers	1099	—	1099
Cabinet makers and upholsterers	685	120	805
Glass makers	634	71	705
Plated ware makers	627	—	627
Saddlers and harness makers	448	161	609
Steel-pen makers	—	594	594
Brewers, etc.	557	24	581
Tool makers and dealers	557	—	557
Japanners	270	239	509
Nail manufacturers	310	126	436
Screw cutters	—	420	420
Coach makers	407	—	407
Watch and clock makers	318	6	324
Brush and broom makers	241	62	303
Wire makers and drawers	285	—	285
Umbrella and parasol makers	76	110	186
Curriers	171	6	177
Locksmiths and bellhangers	176	—	176
Boiler makers	142	—	142
File makers	138	1	139
Toy makers and dealers	13	122	135
Basket makers	116	14	130
Pin manufacturers	—	52	52
Grinders	47	—	47
Zinc manufacturers	44	—	44

The town of Birmingham is divided by the Registrar-General into nine sub-districts, the area of which in all includes 2660 statute acres. These districts are named as follows:—

Ladywood, with a population of	34,728
St. Thomas, with a population of	32,269
St. Martin, with a population of	30,252
St. Peter, with a population of	14,806
St. Philip, with a population of	9,375
St. Paul, with a population of	9,489
St. Mary, with a population of	17,477
St. George, with a population of	44,405
All Saints, with a population of	19,820
Total	212,621

The town itself—what need is there for any description of it in a day when every Englishman thinks it a duty to visit the manufacturing heart of his country, and knows he shall find it where it ought to be, almost in the centre of the kingdom? Who does not know that the town is dull, hilly, and smoky; that the streets are always slippery and the houses carbonised? Who does not remember the noise of the traffic, and who forgets a dialect which can never be imitated? Who can let slip from his memory that massive Town Hall, looking like ruins of great classical magnificence that were built some thousand years since, and have recently been refitted for the uses of the present race? Who has never seen the River Rea, the branch of the Trent on which the mud town was primitively built, and which now is devoted solely to a water-mill? Who has not seen the great canal, which not long before the iron horse began to run into Birmingham from all points of the land and snort in fifty places at once, was looked on with such favouring eyes by the men of the Bridgewater school, and which really has, in its way, contributed largely to the commerce of the town? Who has not listened to the praises of a true Birmingham man in respect to the beauties, architectural and pictorial, of New-street, or failed to discern courtesy struggling with indignation when Regent-street or Portland-place has been thoughtlessly drawn into comparison? Who does not know the Mayor of Birmingham—I mean the Mayor in general—or the fact that this immense Birmingham community has only two Members of Parliament, one of whom at this time is a host of members in himself? I presume that everybody knows all these particulars, and so I merely name them to quicken the recollection which

may have been sleeping over Gillott's steel pens, the Midland Institute, the Queen's College, or inimitable pork-pies—on which, in Birmingham, in spite of trichinia, every one must, and, though he may conceal it, does occasionally feast!

No more. We are in this town, once a mud village, whither the Brummings, if there ever were such a people, once flocked: where there is plenty of poverty, and as much physical force actually lost as would reanimate Spain and charge the ruined cities of Central America, or the dead desert, with perpetual motion. Such a population obviously must have a great many Doctors and houses for the sick and typical forms of human suffering, and much to teach that a cosmopolitan follower of Esculapius ought to learn,—but which must be left over this week.

REVIEWS.

On Diseases of the Throat and Windpipe. Embellished with 116 Engravings. By George Duncan Gibb, M.D., M.A., M.R.C.P. Lond., Assistant-Physician and Lecturer on Forensic Medicine, Westminster Hospital. Second Edition. 8vo, pp. 481. London: Churchill and Sons. 1864.

This book is, as the Preface says, in every sense a new work. Since the publication of the first edition Dr. Gibb has availed himself of the advantages presented by the laryngoscope, which, indeed, he has done much to bring into general use, and has produced a book which contains much that we shall look for elsewhere in vain. The book opens with a description of follicular disease, or clergyman's sore throat, as it is commonly called, and on this point we should recommend Dr. Gibb's observations to the notice of the Bishop of Rochester.

He mentions amongst the causes of follicular disease of the throat the officiating in large, cold, draughty churches, or performing the Burial Service out of doors in cold weather, with the head uncovered. In the time of our wiser forefathers the priests used caps.

After the diseases of the upper air passages, the affections of the vocal cords, functional and organic, acute inflammatory affections, specific diseases, as diphtheria, syphilis, etc., the exanthematous affections, diseases of "systemic" origin, as ossification of cartilages from age, the "saccharine throat" so called (a very obscure subject very obscurely treated), sore throat from tobacco, dyspnœa, and deformities of the larynx, follow in order. Then we have nervous, hysterial, and paralytic affections, diseases of the mouth and nose, affections of the trachea, foreign bodies, and diseases and injuries of the hyoid bone, and injuries of the throat generally. The book winds up with an account of the laryngoscope.

The application of topical remedies to the larynx was formerly little adopted, because Physicians felt that they were literally working in the dark; but since the introduction of the laryngoscope, such applications are made with safety and precision. Dr. Gibb lays especial stress upon their value in the case of tubercular ulceration of this part, which, existing as it often does, without any actual lung complication, by the constant cough and general irritation of the breathing apparatus, is apt to produce pulmonary disease. A curious fact is brought forward by our author as showing a peculiar tendency to throat disease in certain classes of people—viz., that the epiglottis, instead of maintaining an erect position while in a quiescent state, in 11 per cent. of mankind is semi-pendant or even horizontal. This fact Dr. Gibb founds upon the examination by the laryngoscope of 680 healthy persons.

A great step in advance in this branch of practice is the discovery and removal during life of tumours of the larynx. From examining thirty-one cases which he found in the London museums, Dr. Gibb states that the most common seat of these growths is either at the root of the epiglottis or in the anterior part of the sub-glottic space, and that the ventricles are the most uncommon part. They may be of almost every variety of structure,—epithelial, fibro-cellular, fatty, etc.; and they may be either sessile or pedunculated; if sessile, they may be destroyed with nitrate of silver; or if pedunculated, be removed with an écraseur which Dr. Gibb has invented for the purpose. He gives the history of seven cases in which such growths were removed by the écraseur. To him belongs the honour of having been the first in London (Dr. Walker, of Peterborough, having previously removed one) to remove such a tumour from the larynx.

In examining the larynx in persons who stammer or stutter, a constant and irregular contraction and rapid approximation of the cords is seen, with a tendency in the glottis to remain closed; all the muscles are in a state which may be compared to St. Vitus's dance; and the action of the thyro-arytenoid muscles is sometimes so energetic as to cause their projection into the middle of the larynx and actually to conceal the true vocal cords.

A very important practical distinction is now for the first time made by our author in laryngeal œdema. Above the glottis there exists a tolerably loose submucous areolar tissue, but below the cords this is very spare and dense, so much so that it has been stated by Hasse, Erichsen, and Prescott Hewitt that sub-glottidean œdema cannot exist; Dr. Gibb, however, gives four cases in which he has met with it, and refers to a number of cases in which this state exists in the museums. He shows that in epiglottidean œdema the swelling is serous, and is relieved by scarification, while in sub-glottic œdema it is fibrinous, and if the breathing becomes seriously impeded tracheotomy must be resorted to.

While the descriptions of the various diseases are minute and accurate, we should have been glad to have had some points in the treatment more dilated upon; for instance, Dr. Gibb often recommends the application of "pulverised fluids" after the plan introduced by Dr. Sales Giron, for which an instrument is made by Weiss and Sons, an engraving of this is given. How much fluid should be used,—of what strength the various solutions should be,—of strychnia, of argento-nitrate of mercury, etc.,—we are not told. The book, however, is a very useful one, and must be read by every one who hopes to treat with success the diseases of the throat.

Before the introduction of the laryngoscope, Dr. Gibb had greatly distinguished himself by his researches into rare points connected with the physiology of the throat, and by his adoption of that instrument and investigations with it, he still maintains the distinction which he had previously earned.

PROVINCIAL CORRESPONDENCE.

EDINBURGH.

June, 1864.

The summer session has hitherto progressed much as all others have done, and been singularly devoid of incident. The societies have been very dull, and the members thereof exceedingly lazy. At the last meeting of the Medico-Chirurgical, Dr. Wood and Mr. Edwards showed an œsophagus removed from a patient of the former gentleman, which presented several peculiarities. The case will probably be published at length, so I need only say that the gullet was bent to the right of the middle line, then to the left, then to the right again, at each turn being widely expanded; it ended in a narrow tube, through which a small test tube filled with mercury could with difficulty be dropped. The stomach was very small when removed from the body, and the spleen thin and not larger than the palm of a hand. This gentleman had suffered more or less all his life, but especially for the last twenty-five years, from dyspepsia. There was every reason to believe that the constriction was congenital. The gullet held fifty-four ounces of fluid, and the stomach after distension sixty-four ounces. Before the stomach was distended by spirit, the parts presented a remarkable resemblance to those of the pelican. The right pneumogastric nerve lay in front of the æsophagus.

Mr. Edwards also showed a tibia which he had removed in its whole length for ulceration of long standing. The bone had been gouged repeatedly and constitutional remedies tried, but the man was evidently sinking, and amputation was proposed; but as the fibula, soft parts and the knee and ankle joints were sound, an attempt was made to save the limb. The periosteum was first carefully stripped off the bone, the shaft of which was then sawn through at its junctions with the epiphyses. The patient has improved in health, and the wound is almost entirely cicatrised.

Mr. Spence has his wards filled with interesting cases. He continues to amputate according to the method he lately described, viz., by a long anterior flap, and says that the more frequently he performs that operation the more satisfied he is with its results. Assuredly the stumps turned out from his wards are everything a practical Surgeon could desire to see.

Dr. Gillespie and other Surgeons here have been using Holt's stricture dilator, with the best results; it seems to be

rapidly gaining ground, and threatens to supersede other forms of treatment. A singular accident was recently admitted to Dr. Gillespie's wards. A fisherman, when fishing off the "Wild Tiree," caught a conger eel about six feet long. The hook had been swallowed, so, calculating by the length of line where it was likely to be, Donald, like a judicious Surgeon, cut down on it, and stuck his middle finger into the wound to grope about and find the hook, which he did; but just then the conger gave a wallop, the hook stuck in the back of his hand, and he was fixed, for the line was hanging out of the eel's mouth. The conger pulled him over the thwarts and bruised him sorely. His two comrades seized each a leg, and prevented him going overboard; but the enemy was the stronger, so they cut the line from its mouth, and away it went to sea, leaving poor Donald in a very sorry plight. Part of his hand has been amputated, and as he rubs the soap liniment on his aching ribs, vows that he "wull na gang again to tat teevilish Tiree." Another interesting case is one which had all the appearances of false aneurism of the posterior tibial. An elderly man was stopping rabbit-holes, when a poacher, who anticipated seeing some game at the spot, mistook poor Sandy's moleskin trousers for rabbits, and fired into the calf of his left leg. However, under judicious pressure, by Dr. Gillespie, the pulsation has ceased, and the pain greatly diminished.

There has been a trial for murder here, resembling, in some respects, that of Townley. A carter, of dissipated habits and naturally bad temper, wished to marry a servant living near Edinburgh; the girl's fellow-servant warned, or is said to have warned, her colleague of the man's habits; this came to Bryce's ears, and he vowed vengeance. He forced his way into the house, found the poor girl, threw her down, and tried to strangle her. Mrs. Tod, the lady of the house, saw this, fetched an umbrella, and, like a brave woman, belaboured Bryce with it. The cowardly brute then left the girl, and she fled to a neighbour's house, but just as she reached it he caught her up, and drew the razor he had brought with him for the purpose across her throat—(Mr. Patrick Fraser, his counsel, accounted for the razor by the hypothesis that "*he wished to shave on the road!*")—the jugular vein was divided, air entered, and she instantly died. Then he ran away, and when about to be captured went through the usual pantomime of suicide; but, like many others, he found it easier to cut the throats of others than his own. Of course, his counsel tried to make him out insane, and received the high authority of Dr. Laycock to corroborate their views, but the jury found him guilty, recommending him to mercy on the ground of his low mental development. This verdict has caused much comment, and the very natural questions been asked what "low mental development" means—whether it is not a comparative term? Whether persons of high mental powers, of refined and elevated moral feelings, are likely to commit murder? Whether good antecedents are a more dangerous possession for a criminal than a history of vicious deeds? There is no effort being made here to memorialise Government for a commutation of sentence.

This case may be contrasted with one which has since been tried. A man took it into his head that he was persecuted by the Free Kirk, that clergymen were suborned to preach at him, and while breaking stones on the road he used to brood over his fancied wrongs; a boy drove a cart near him, and he recognised in the lad an emissary of the Free Kirk, so he knocked the lad's head to pieces with a spade, went home and boasted of what he had done. His case was dismissed, as he could give no instructions for his defence. But he was well known to be mad, and dangerously so, for years, yet no one had taken the trouble to put him under even moderate surveillance.

Another case has been brought before Sheriff Gordon of a gentleman of property, who has a habit of walking about with a loaded gun on full cock, and firing, as the Yankees would say, "quite promiscuous." His manners are eccentric, and he cannot be persuaded to use a knife and fork. Besides the gun he carries a "pocket pistol," also loaded, and also used promiscuously. But he has been, and is, going about at large. He has not actually shot anybody yet, and when he does, it will probably be—

"Only a pauper whom nobody owns."

But, after wandering at his own free will for a long time with the weapons I have mentioned, so soon as his relatives discovered that he was about to marry a pauper female with one eye, a "kick in her gallop," and an indifference to the narrow prejudices produced in this country by the decalogue, they at once called him into court and endeavoured to prove him insane, because the estate might slip out of his idiot fingers into those of offspring by his monocular love.

Talking of science, surely the able writer of critical remarks on the British Pharmacopœia in the *Medical Circular* cannot have read the Messrs. Smiths' paper on aconella in the *Pharmaceutical Journal*. If he had, he could not have given expression to this thought under the head "aconitia."

"It is extremely probable that it (aconella) is the same body to which the name 'napellina' had been previously given." The characters of napellina which the writer himself has assigned to it show that the two substances are entirely different. He says:—"It (napellina) is said to be distinguished from aconitia by *not* being precipitated by ammonia from a hydrochloric acid solution, and by being *more* soluble in alcohol and water."

The characters of aconella brought out by these bodies (ammonia, alcohol, and water), without specifying others which may be found in the paper alluded to, are the very reverse of those here ascribed to napellina. One part of aconella requires 300 parts of cold alcohol for its solution. So if this character of great solubility in spirit places a complete distinction between aconitia and aconella, the distinction must be still *greater* between aconella and napellina, which is even more soluble in spirit than aconitia.

And again, aconella is so very insoluble in water that a fraction of a grain dissolved in several ounces of water by the acid of an acid—hydrochloric among the rest—is so precipitated by ammonia as to render the solution quite milky. But, perhaps, the character that distinguishes aconella from napellina as markedly as any other may be found in their degree of alkalinity. Napellina is a strong alkali, and aconella is a very weak one—so much so that, although forming saline compounds with acids, yet their compounds are, even when neutral, all strongly acid to litmus.

Mr. Bryson has recently exhibited, at the Society of Arts, a very beautiful application of thermo-electricity, which will enable a ship, even in the darkness of fog or midnight, to determine the proximity of icebergs. Dr. Strethill Wright, one of the best electricians living, conducted the experiments, and astonished the Society by firing a miniature cannon by a lump of ice. I believe the Cunard Company have offered Mr. Bryson every facility for testing his invention on a large scale. Dr. Wright has, in the intervals permitted by practice, been exhibiting one of his beautiful applications of electricity—viz., a method of firing powder at any distance by means of a wire so fine as scarcely to be visible, and a battery so small you can carry it in your pocket. Dr. Wright has exhibited this before important personages, and you will probably hear more of it. As for me, have I not written enough, and is it not perfectly justifiable that for a time I leave the schools, go down to Granton, and get some boy to row me out into the tideway, and so drift about as he just lets his oars dip now and then in the water? I look back on dear Dunedin, and, with feelings for which there is no adjective, think of how lovely she is, and how perchance, in these streets glistening in the afternoon sunshine,—

"I have lost good days that better might be spent;
Have wasted nights in pensive discontent;
Have sped to-day, to be put back to-morrow;
Have fed on hope, and pined with care and sorrow."

GENERAL CORRESPONDENCE.

THE COMING ELECTION TO THE COUNCIL OF THE COLLEGE OF SURGEONS.

LETTER FROM SURGEON-MAJOR JUDD.

To the Fellows of the Royal College of Surgeons of England.

GENTLEMEN AND FELLOW-ELECTORS,—On the occurrence last summer of a vacancy in the Court of Examiners of the Royal College of Surgeons of England, it was with pain and deep regret we witnessed the slight put upon Mr. Gulliver by his non-selection for an office the duties of which no man in this country is better able to discharge. His general attainments, his talents as a Surgeon, his intimate knowledge of anatomy, his scientific discoveries on the blood, etc., have deservedly acquired for him a European reputation. Yet this gentleman is passed over, thus perpetuating a system of monopoly which the recent charter granted to the Royal College of Surgeons was intended to destroy.

The College and Profession owe much to Army Surgeons. I need scarcely mention the names of Gunning, Home, Keate,

C. M. Clarke, Guthrie, etc. I am deeply impressed with the imperative necessity that exists for an Army and Naval Surgeon having a seat in the Council of the College, in order to represent and protect the interests of the hundreds of our members engaged in both services.

If Surgeons attached to metropolitan and other Hospitals are to be deemed the only persons admissible, the rights of the Fellows at large would be destroyed, the reform rendered useless, open elections a farce, and the whole spirit and intention of the new charter necessarily nullified.

I, therefore, feel it to be my duty to recommend to the Fellows to support Professor Gulliver, and call upon them to unite in their efforts to insure his election.

I have the honour, Gentlemen and Fellows,
To be your most obedient servant,
W. H. Judd, F.R.C.S.,
Surgeon-Major, etc., late S. F. Guards.

41, Maddox-street, London, June 26.

Letter from Staff-Surgeon Loney.

[To the Editor of the Medical Times and Gazette.]

Sir,—Referring to Professor Gulliver's letter in a late number of your journal, it appears to me that the question really at issue in the forthcoming elections is, whether the Fellows consider that the body of Metropolitan Surgeons composing the Court of Examiners is any longer fit to be entrusted with the entire monopoly of the College patronage.

In the case of Mr. Kiernan, a man of undoubted scientific repute, who yet, I believe, never was Surgeon to any Hospital, the Council actually rejected him by an equal division, and he was only brought in after protracted meetings by a majority of *one*.

And next a man belonging to the public service, who has advanced both the scientific and practical part of the Profession, is actually rejected as unfit to sit in the same Court of Examiners—in one of those Courts of Examiners, I should say, which, according to the testimony of Professor Parkes, of Netley, admit men into the Profession who are incapable of passing the very simple examination for Assistant-Surgeoncies at the Army Medical Board. I am, &c.,

Wm. Loney, F.R.C.S., Staff-Surgeon, R.N.

Army and Navy Club, June 28.

THE VARIETIES IN HUMAN MYOLOGY.

Letter from Dr. McWhinnie.

[To the Editor of the Medical Times and Gazette.]

Sir,—The subject of the varieties in human myology is at present engaging the attention of several writers, who it is to be hoped will be enabled still further to establish homologies between the peculiarities so often found in many of the muscles of the human body, and the normal condition of corresponding muscles in animals. Amongst the communications I was favoured with after the publication of my paper in the *Medical Times and Gazette*, is one from Dr. Watson, describing several striking deviations from the natural condition of the muscles and other structures which he found in the same body. I am, &c., A. M. McWhinnie.

7, Serjeants' Inn, June.

"Dear McWhinnie,—The following extract from an old note-book of mine may not be without some interest for you in reference to your paper on the 'Varieties of the Muscular System in the Human Body:'—

"Yours, very truly, "Thomas Watson.

"'In the course of the examination at St. Bartholomew's Hospital of the body of a man who had died in consequence of an extensive fracture of the skull, it was found that on the left side of the body there was no serratus magnus, no pectoralis minor, no subclavius, and only the clavicular portion of the pectoralis major. This clavicular portion was considerably larger than that of the other side. Two or three inches of that portion of the third rib next to its cartilage were deficient, and here there was nothing but the pleura between the skin and the thorax. The external intercostals were, in front, very much enlarged, almost covering the ribs in some places. There was a strong ligament going from the coracoid process to the sternum. The examination was conducted by Mr. Stanley. The muscles of the back were not examined, though the examination would have been highly interesting. How was the scapula steadied? The man was a common labourer.'"

MR. ADAMS'S REPLY TO THE CHARGE OF ALLEGED BREACH OF ETIQUETTE.

Letter from Mr. John Adams.

[To the Editor of the Medical Times and Gazette.]

Sir,—I emphatically assert that Jones's letter is a tissue of lies, and most absurd lies, from beginning to end. I shall enter into no controversy with this man. I am, &c.

4, St. Helen's-place, June 30. John Adams.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, June 14.

Mr. Partridge, President.

Mr. Joseph Toynbee read a paper on

PATHOLOGICAL RESEARCHES INTO THE DISEASES OF THE EAR — (SUPPLEMENT TO THE SEVENTH SERIES) — SEBACEOUS TUMOURS IN THE EXTERNAL AUDITORY MEATUS.

After reference to the eighteen cases (published in the forty-fourth volume of the Society's *Transactions*) in which sebaceous tumours developed in the external auditory meatus had caused disease of the petrous bone, the author detailed two additional cases of the disease in which death resulted from irritation of the brain produced by the presence of sebaceous tumours. In one case—a girl, aged 16—there was no history of any previous affection of the ear; nevertheless, there was caries of the petrous bone, and death ensued from inflammation and softening of the brain. In the eighteenth case—that of a boy, also 16 years of age—acute symptoms suddenly came on without any warning, and death followed eight days after his admission into Hospital from inflammation of the brain.

Mr. Edgar Barker, jun., read a

CASE OF PROGRESSIVE ATROPHY OF THE TONGUE AND MUSCLES OF SPEECH—SUBSEQUENT LOSS OF POWER—GREAT GENERAL ATROPHY—POST-MORTEM APPEARANCES.

Since the publication in the *Medico-Chirurgical Transactions* in 1851, by Dr. E. Meryon, no other case of this description had been brought before the notice of the Society. The subject was a gentleman, aged 51, who had enjoyed excellent health till May, 1859, when a slight difficulty of speech, accompanied by general failure of health and strength, induced him to seek Medical advice. These symptoms, without any apparent cause, with the addition of impairment of deglutition, continued to increase; and on the following September, after some months' residence at the sea-side, the tongue had assumed the following remarkable appearance: small and shrunken, it lay low in the floor of the mouth, and over its whole surface was noticed an unceasing tremulation of the fibrils of its muscular structure; it had lost its bright healthy hue, and was of a pale yellow colour. His face had also lost its ordinary expression; the cheeks and lips were flaccid, and hung down. Saliva frequently dribbled from the mouth. No symptom whatever of irritation of brain or spinal cord was ever present, but the muscular tissue in different parts continued to waste and degenerate with unrelenting pertinacity. Gradually articulation became unintelligible, and deglutition impossible. The fibrillary tremors so noticeable during the wasting of the muscles ceased with their destruction. From the tongue to the muscles of deglutition, thence to those of the upper and from these to the lower extremities, the disease extended. At length the intercostals were affected; and the breathing consequently at times became much laboured, as each morning brought increasing difficulty in the necessary expulsion of mucus collected in the bronchial tubes during the previous night. Great exhaustion followed these attacks, and on the morning of the 15th October, 1861, he gradually sank. Various remedies had been for many weeks together tried, but none seemed in any way to arrest the steady onward progress of the disease. Cod-liver oil, quinine, iron in various forms, zinc, strychnia, and the constant use of galvanism, were the principal agents employed. The post-mortem examination of the tongue went to prove that in its entire extent it had been converted into a soft, pale yellow mass of fatty

tissue. The papillæ were shrunken, and most of its muscular fibres were replaced by oil-globules, amidst which granular and fat-laden fibres were here and there scattered; and of the muscles attached to the tongue, only the genio-hyoglossi and stylo-hyoglossi retained any manifest traces of their form and structure. The nerves of the tongue, so far as traceable, were natural; no apparent softening or atrophy of them could be detected; muscular fibre in the arches of the palate and in the uvula were chiefly natural, save here and there. The same granular appearance was noticed in the pectoralis major and in a portion of the left ventricle of the heart, and in the left side of the diaphragm. In all, the muscular fibre was in great part natural, though each specimen in an equal degree contained stray fibres, which were losing the clearness of their transverse markings, and becoming granular with fatty deposit. The examination, worked out with the greatest care and by accurate observers, failed to bring satisfactory evidence of any change in the nervous tissue supplying the affected muscles, either in their centre or peripheric extremities; but, on the contrary, the examination tended to strengthen the present prevailing opinion that the disease is essentially in the muscular tissue itself, and must yet be looked upon as akin to that condition frequently met with in the left ventricle of the heart, and known as fatty degeneration.

In answer to a question,

Mr. Callender said that the examination was made chiefly by Mr. Paget and Dr. Brown-Séquard, but he could not say that there was any microscopical examination of the spinal cord.

Dr. Meryon said that in a similar case to that related the spinal cord and the nerves connected with it had been examined, but not the slightest disease could be detected. Cruveilhier had recorded three cases of the disease, in two of which the spinal cord was not affected, though it was in the third case. In this patient there was the same tremulous action of the muscles. The origin of the disease had been attributed to exposure to night air. Since his (Dr. Meryon's) case had been related two brothers of the patient had died, the last one about three years since. Dr. Meryon then referred to several cases of the affection, in none of which had he seen the tremor of the muscles, except after the use of electricity. He attributed the disease simply to a breaking down of the muscular structures of the part, and thought it unconnected with nervous changes. Medicines in these cases had exerted little or no influence. In one case, however, he had given liquor arsenicalis for six months, and the disease had not progressed.

Dr. Gull said that the cases referred to by Dr. Meryon and the one under consideration were not at all similar. Dr. Meryon's was a class of cases occurring amongst young people, and the muscular degeneration was somewhat analogous to the rickets in bones. The case of Mr. Barker was of another kind; and considering that no microscopical examination had been made of the seventh and lingual nerves, it was valueless in respect to the cause of the disease. He entered his protest against the assumption that it was primarily dependent on muscular degeneration. How did it commence? Now, looking at the fact that one of the olivary bodies was flattened and the anterior pyramid altered in form—the very eye, as it were, of the nervous centres,—and taking into account the symptoms, it would appear that the disease had its origin in the nervous system. He had shown in some lectures at the College of Physicians that paralysis might begin in any of the structures of the body.

Dr. Fuller had seen a case in every way similar to that of Mr. Barker, except that it was not fatal. The disease began in the tongue, but the upper and lower extremities became affected; the patient could not walk, and could scarcely lift his hand to his head. The patient was not of a strumous habit, but was previously in good health, and attributed the disease to great mental and bodily exhaustion consequent upon exertion. The symmetry of the disease in these cases was in favour of the opinion expressed by Dr. Gull, as were also the cramp and some other symptoms present. He (Dr. Fuller) had seen another case which had likewise been attributed to great mental and bodily exhaustion; this case proved fatal.

Mr. W. Adams referred to a case which had come under his observation in most respects similar to that of Mr. Barker, and in which the disease was attributed to great mental distress.

Mr. Callender said that some disease of the nervous system was expected to be found in Mr. Barker's case. There was certainly some change in the olivary and pyramidal bodies, which were slightly atrophied; but on careful microscopical examination no change of structure could be discovered. Mr. Barker, he believed, had brought forward his case as a clinical memoir chiefly. With respect to the symmetrical character of the disease being indicative of its nervous origin, he did not think it of so much weight. One muscle became affected; and even in nervous affections the muscles on one side were often alone involved.

A paper by Dr. Henry Dick, communicated by Mr. William Adams, was read

ON THE TREATMENT OF STRICTURE OF THE URETHRA BY SUBCUTANEOUS DIVISION.

In the year 1853 Dr. Henry Dick published his first case in the *Medical Times and Gazette*, and in 1855 he sent a memoir to the Académie de Médecine de France, in which two other successful cases are related. Since that time, Mr. Wm. Adams and Dr. Dick's colleague at the National Orthopædic Hospital, Mr. Allingham, have operated after the same method with the best result. Dr. Dick divides strictures into two classes, after their physical properties—namely, into dilatable and non-dilatable. Stricture may occur at any spot of the urethra, but the most frequent is the bulb. They are less frequent at the fossa navicularis and the membranous portion. Stricture is the result of inflammation, a new tissue being formed at the strictured spot, which is of a fibrous nature. The greatest number of strictures take the form of atrophy; but a few are met with of the hypertrophic form. In drawing attention to the shape of the stricture, Dr. Dick points out that every portion of the stricture must be divided, because if only the narrowest part is divided symptoms of stricture will return. He further alludes to deviation of the urethra in strictures, believing that the back opening of the stricture does not correspond with the front opening. He says that those pathological changes are the result of post-inflammatory retraction. Dr. Dick passes in review the different treatment of stricture. He believes dilatation by the graduated metallic bougies is the safest; but there are cases where dilatation will not give much relief to the patient, or sometimes social exigencies urge the patient to get radically cured. The different methods employed he divides into three: 1st, cauterisation; 2nd, splitting or tearing; 3rd, cutting strictures. And the cutting he subdivides into three kinds: the internal, the external, and the subcutaneous methods. He thinks cauterisation the most objectionable, having regard to the pathological anatomy of strictures. Splitting he only admits in a few exceptional cases—where division by the knife cannot be practised with safety, where a number of strictures are closely following each other, or where a large part of the urethra is strictured; but even in these there is no certainty if the stricture has been really torn or only forcibly dilated. He cites two cases of sudden death occurring after splitting. His other objection to splitting is that the pain is so violent that recourse must be had to chloroform. Besides, it is a principle in Surgery never to tear parts when they can be cut with safety. Dr. Dick thinks the internal incision is the most logical, having regard to the pathological anatomy of strictures; but its execution has great drawbacks: he alludes to the difficulty of making the cut at the right spot with the instruments. Incisions with those cutting machines are very difficult to execute, as very often the knife acts as dilator instead of a cutting instrument when the part is not tensely dilated. He objects to the external incision as being almost as hazardous an operation as cutting for stone. The suppuration afterwards is also long, consequently pyæmia is much to be apprehended; besides, the long suppuration is very likely to occasion great retraction, some cases of which have come under his own observation. He comes now to the subcutaneous division, which he believes fulfils the indications of the pathological anatomy. The Surgeon can attack directly with the knife the contracted spots. He is at liberty to make his subcutaneous cut as long and as deep as he thinks most suitable for the occasion. The external puncture heals in the first twenty-four hours. The operation has further the advantage that chloroform is not required, the pain being very trifling; the hæmorrhage, too, is insignificant. The subcutaneous method is indicated not only in severe strictures where dilatation cannot be practised, but also, in his opinion, in those elastic strictures which return after dilatation. He then describes the mode of operating. Dilatation must first be practised to a small extent, to enable the operator to pass a small-grooved conductor through the stricture. No chloro-

form is used. The patient's regimen is not changed. In winter he confines his patient to the room for eight days; in summer only for three days. For the operation the patient is placed in the position for lithotomy. The instruments used are a grooved conductor, which was shown to the Society; an ordinary tendon knife, which for strictures in the membranous portion should have rather a long neck, and be a tenotome caché; a good-sized catheter in proportion to the orifice of the urethra; a T-shaped bandage, an ordinary bandage, sticking plaster, and lint. No bandages are required for strictures in the membranous portion; for the latter cases a large metallic bougie is left in the urethra after the operation. The patient placed in position, the conducting catheter is introduced until the two knobs stop before the stricture; then the Surgeon, by skilful manipulation, slides out the small grooved conductor (which was concealed in the conducting catheter) through the stricture. The conducting instrument being then in position, the Surgeon delivers it into the hand of his assistant, telling him to keep it gently but steadily against the stricture. He then feels outside the urethra for the two small knobs, grasps with his left hand the penis with the instrument, and places his thumb just before the knobs, having his index and middle fingers at the back of the penis; he then takes the tenotome in his right hand, and thrusts it between the two knobs, pushing it resolutely through the stricture, and divides it in that sawing manner in which usually tendons and fibrous tissues are divided. He thinks the cut should always be from three-quarters of an inch to an inch long; also that the knife should not be withdrawn until the Surgeon is quite convinced that the stricture is completely divided. The conducting catheter is then withdrawn, and lint and sticking-plaster placed on the external wound, and the whole kept in position by a T-shaped bandage, a common roller, and a few pins. The patient is then put to bed, and his urine drawn off twice or thrice a day when required with a large catheter. Dr. Dick strongly objects to leaving a catheter in the urethra after the operation. He now quotes four cases of his own and two of Mr. Allingham's, all of which were attended with the most successful results. In them he relates as a remarkable fact that shivering always took place, but no bad results followed. The only case in which shivering did not occur was that after incision in the fossa navicularis. Another point of importance on which he dwells is, that dilatation with a large metallic bougie should be practised once a week for six months after the operation.

A paper was read by Mr. Wm. Adams on a

CASE OF TRAUMATIC STRICTURE IN THE ANTERIOR PORTION OF THE URETHRA, CURED BY SUBCUTANEOUS DIVISION.

As a note appended to the above paper by Dr. H. Dick, Mr. Wm. Adams gave the particulars of a case of traumatic stricture in the anterior portion of the urethra, which he had cured by dividing the stricture subcutaneously in the manner proposed by Dr. Dick; the operation very much resembling subcutaneous tenotomy. In June, 1862, C. W——, aged twenty-six years, an officer in the army, first consulted Mr. Adams on account of a very severe stricture of the annular or ring-like form and gristly substance situated in the anterior portion of the urethra, two inches and a quarter from the external orifice. The stricture, which could easily be felt by external examination, had been caused by the bite of a horse in India a year and a-half previously, and the inconvenience now suffered by the patient incapacitated him for military duty. At the time of the accident both the scrotum and penis were much injured; profuse hæmorrhage from the urethra occurred, and a portion of the mucous membrane is said to have protruded from the external orifice. Abscess formed and opened externally close to the frenum, where a fistulous opening communicating with the urethra remained at the date of Mr. Adams's operation. Ever since his recovery from the immediate effects of the injury, the patient has been obliged to wear, night and day, a short catheter, of small calibre (about No. 2); the disposition to contraction being so great that if this were discontinued more than a few hours, he had the greatest difficulty in passing a tube even of less diameter than a No. 1 catheter. Mr. Adams considered that an operation offered the only means of permanent cure; but at the patient's request this was postponed, and gradual dilatation tried by a graduated series of short silver catheters. The patient left town, and persevered in this treatment for eight months, wearing a catheter day and night, Dilatation could not be carried further than to admit a No. 4 catheter, which was habitually worn, when Mr. Adams was again consulted in February, 1863. The disposition to contraction was so great that when the No. 4 catheter was left out during the night, only a No. 1 or No. 2 catheter could be passed in the morning. Mr. Adams now urged an operation; and, thinking that any attempts at forcible dilatation, such as Mr. Holt had recommended, would probably fail in consequence of the large size and unusual gristly induration of the stricture, determined to adopt the subcutaneous division of Dr. Dick, more especially as he had assisted Dr. Dick in two operations of this kind in severe cases, in both of which the operation had been eminently successful. On March 16, 1863, Mr. Adams performed the operation, with the assistance of Dr. Dick. The instruments used were the tenotomy knife, and Dr. Dick's grooved staff with a bulbous extremity, having within it a smaller grooved staff, which can be passed through the stricture, and form a director, along which the knife can be passed in dividing the stricture, when the bulb of the larger staff has been passed down to the stricture as a guide for the introduction of the knife. In performing the operation, the tenotomy knife was passed through the skin externally, directly into the groove in the bulb of the larger staff, and thence onwards along the groove in the smaller staff through the stricture; then, leaving the groove, the knife was directed outwards towards the skin, dividing freely the stricture and some of the corpus spongiosum a little above and below it. In the present case no difficulty occurred in the operation; but, as a complication, two other strictures were discovered by the bulb of the larger staff—one an inch and a half from the external orifice (*i.e.*, nearly an inch anterior to the main stricture), and the other more than an inch behind the main stricture: so that in order to divide these, it was necessary to introduce the tenotomy knife in two different places. When the main stricture was divided, the tissue gave way very much like a tightly-stretched tendon, and could be both heard and felt. Immediately after the operation, in which very little hæmorrhage occurred, a No. 12 (English) catheter was passed into the bladder without any difficulty, and left in for a short time, slight pressure on the penis being kept up. The catheter was not left in during the night. The next day a No. 12 catheter was introduced twice, and the urine drawn off. This was continued day after day two or three times, and on the fourth day the patient was indiscreet enough to walk down to his club and dine with some friends. Not feeling so well afterwards, he remained two days in-doors. On the eighth day he went out of town. He was able to pass a No. 10 catheter for himself without any difficulty, and this he was directed to do at first twice and then once a day. The No. 12 catheter seemed to meet with a little obstruction at the seat of the deepest stricture, or a little beyond this, but passed readily through the situation of the main stricture. On April 15 the patient was carefully examined by Mr. Adams, and no disposition to recontraction existed. He was improved in every respect. On June 8, less than three months from the date of the operation, Mr. Adams reported this gentleman as fit for active military duties. He was now directed to continue passing the No. 10 catheter twice a-week, and then once a-week, which was to be gradually discontinued. It may be safely affirmed that in this case no better result could have been obtained by any other method of treatment; and it certainly offers encouragement to test further the advantages of the subcutaneous division of stricture, and determine the cases to which this method of treatment is especially applicable.

Dr. Dick said that he had operated in very many cases, and always successfully. The periods which had elapsed since the operations varied from nine years to a few weeks. All the patients recovered well.

THE PATHOLOGICAL SOCIETY.

Tuesday, May 17.

Mr. Prescott Hewett, President, in the Chair.

Mr. Holmes exhibited

THE PARTS CONCERNED IN A PLASTIC OPERATION FOR THE RELIEF OF THE DEFORMITY OF EXTROVERTED BLADDER.

This was the first operation of the kind successfully performed in this country, and was reported soon after the time of its performance in the *Lancet*, June 27, 1863. Its principle was to cover the exposed bladder by means of a flap (taken out of the groin on one side) turned down with its skin surface inwards; and to fix this flap by another (taken from the

opposite scrotum) drawn over the former flap with the skin surface outwards. After the union of these two flaps, a broad thick cover will be formed, which can then be easily united with the skin of the abdomen, by one or more operations, leaving a hiatus below for the escape of the urine. To this a common "railway urinal" can very easily be adapted. If the flaps are pretty thick, and the patient in good health, they will generally unite very readily; and their union appears both more probable and more secure than that of flaps united only by their edges. In cases complicated with large hernial protrusions, distending and thinning the skin, and in persons reduced by ill-health, union is very doubtful. In the preparation exhibited the cleft was entirely covered. The hiatus left was large enough to admit the finger easily, and Mr. Holmes thought it better to have an opening of this size, since the bladder ought to be frequently washed out with a syringe to clear it of phosphatic deposit; and if the opening be reduced too much, this deposit will be more troublesome. But when the cover is once formed, the opening can be contracted as much as the Surgeon pleases. There was a very minute pin-hole opening in the union between the transplanted cover and the skin of the abdomen, but it was hardly visible, and did not appear to transmit any urine. The patient, a well-grown boy, 9 years of age, died about a year and a quarter after the operation, from the growth of a tumour, of the fibro-plastic variety, in the pons variolii and cerebellum.

Mr. Wood exhibited a

SPECIMEN FROM A CASE OF EXTROVERSION OF THE BLADDER AFTER OPERATION.

The specimen was from the body of a male child, aged 7 years, who died in King's College Hospital from erysipelas of the head and face about six weeks after the completion of the plastic operations for the cure of the deficiency of the front wall of the bladder. Before operation the case presented all the usual characters of this result of arrest of development, viz., deficiency of the symphysis and wide separation of the arches of the pubes, and of the origin of the recti muscles; complete exposure and protrusion of the hinder wall of the bladder and orifices of the ureters; separation of the corpora cavernosa and deficiency of the upper wall of the urethra. The testes were still in the canal or abdominal rings; the scrotum empty. The operations were as follows:—First, two lancet-shaped flaps were cut from the skin of the groin, with their bases towards the scrotum; these were then transplanted so as to join each other by a broad surface for adhesion over the exposed bladder. When these had become united, a flap was turned down from above, after Pancoast's method, and drawn under the united side flaps, thus closing up the upper aperture left in the first operation. Then a flap was taken from the scrotum on each side, turned over the imperfect penis, and stitched with their raw surfaces together. These became adherent to each other, and united to the upper flaps so as to form a sort of short tube for the urethra. No sloughing occurred, and all had completely healed a month before the occurrence of the disease which destroyed the little patient. He had power of retention to the extent of a couple of ounces, until a cough or the elasticity of the sides of the new cavity caused a gush through the newly-formed urethra. He was waiting for the fitting of an india-rubber bottle when attacked by the erysipelas which carried him off. Mr. Wood attributes a good deal of the success which followed the transplantation to preservation of the ascending branches of the common femoral artery which supply the lower part of the skin of the belly. These were kept undivided in the area of the base of the side flaps so as to preserve their vascularity undiminished. He mentioned that he had another case of the kind now under treatment in the Hospital, which had been equally successful.

Mr. Hutchinson exhibited a specimen of

COMPLETE DETACHMEMT OF THE LOWER EPIPHYSIS OF THE FEMUR.

A lad, age 12, was brought into the London Hospital, having been run over in the street. He had sustained what, at first sight, was supposed to be a compound dislocation of the left knee joint, and the soft parts were most severely injured. On examination, it was found that the projecting bone was the end of the shaft abruptly detached from its epiphysal extremity. The latter still remained in connection with the tibia, and the joint itself was uninjured. Primary amputation was necessitated, and was at once performed (by Mr. Adams, in consequence of Mr. Hutchinson's absence from town). In dissecting the parts, the popliteal artery and vein were found torn across, and the periosteum had been very extensively stripped from the lower part of the shaft. The epiphysis itself had been displaced by the gastrocnemius in such a manner that its surface of detachment looked directly backwards into the popliteal space, instead of upwards in a line with the shaft. Mr. Hutchinson drew particular attention to this displacement, and showed that it would have been quite impracticable to treat such an injury in any other position than with the knee bent at right angles (double inclined plane). He also remarked upon the circumstance that the periosteum was so extensively torn off, and said that he believed this was a common result in these accidents, and that it explained the frequency with which suppuration between the periosteum and bone occurs after them.

Mr. Hutchinson also brought forward a specimen of

MORGAGNIAN CATARACT, WITH DISPLACEMENT OF THE NUCLEUS.

An elderly woman applied at the Moorfields Hospital with double cataract. In the right eye the lens presented the usual grey appearance, but in the left a horizontal line across the pupil divided the opaque lens into an upper white half and lower rich brown one. The line of demarcation was most abrupt, and produced an appearance much resembling that of a parti-coloured agate. It was thought at first that the lens must be fluid, and that the coloured particles had gravitated to the lower part; but it was found that, in changing the position of the patient's head, no change in the relation of the coloured and uncoloured parts could be effected. The fact that the line of separation was almost level seemed to negative the idea that the coloured part was the nucleus, which having become loosened had sunk down. Mr. Hutchinson performed extraction in both eyes. The lens of the right was grey in colour, and a little brown towards its middle; its surface was sticky and soft, but not fluid. The lens of the left eye presented the condition of a fluid exterior, with a very hard red-brown nucleus. The latter, quite loose, had sunk down to the lowest part of the capsule. It was not round, but a very long oval, so that its long side, which had lain uppermost, had appeared to cross the pupil, not as a curved, but as an almost straight line. As to the question whether Morgagnian cataracts might be held to indicate unsound eyes, Mr. Hutchinson remarked that there was no reason in this case to suppose that the globe was diseased. It had progressed perfectly well since the operation. The cataract had existed about four years before the patient applied.

Dr. Ogle related the following

CASE OF CARIES OF THE FIRST AND SECOND CERVICAL VERTEBRÆ—FISTULOUS OPENING COMMUNICATING WITH THE DISEASED BONE—RUPTURE OF TRANSVERSE LIGAMENT—SUDDEN DEATH BY PRESSURE OF ODONTOID PROCESS UPON THE SPINAL CORD.

The patient, aged 16, was the subject of intense pain, shooting from the neck to the top of the head, and of almost complete inability to move the head, along with great rigidity of the sterno-cleido mastoïd muscles on both sides. Through the fistulous opening at the back of the neck above alluded to dead bone could be felt. Loss of power over the left arm and leg came on; afterwards, paralysis of the sphincters and loss of power in all the limbs. He died whilst attempting to raise his head in bed. On post-mortem examination the spinal cord corresponding to the axis was quite softened, the result, no doubt, of pressure of the odontoïd process. For the opportunity of exhibiting the specimen, Dr. Ogle was indebted to Mr. Barber, Surgeon to the Sheffield Infirmary. Dr. Ogle related in connection with this case three others of disease of the upper cervical vertebræ.

The first was the case of the late Dean of Westminster, the Very Rev. Dr. Buckland, in whom, after death, he had found *extensive caries of several of the upper cervical vertebræ, including the odontoïd process, with great destruction of the ligamentous structures.* The "transverse ligament" was much diseased, and easily ruptured, but it had not actually given way before death. The occipital bone around the foramen-magnum was also carious. The brain and cerebellum were healthy, excepting a slight amount of fatty degeneration of the capillaries in places.(a)

The second case alluded to was one of *caries of the first and second cervical vertebræ and abscess communicating therewith, rupture of the "transverse ligament," and sudden death from dislocation of the odontoïd process.* The patient was an inmate

(a) The specimens of diseased vertebræ and occipital bone have been deposited by Mr. F. Buckland in the museum of the Royal College of Surgeons.

of St. George's Hospital, in whom, before death, the loss of power in moving the head became so affected that it had to be kept fixed by means of a pillow of sand.

The third case was one of *caries of the first and second cervical vertebræ and of the base of the cranium, with enlargement of the odontoid process, and softening of the corresponding part of the medulla oblongata.* Intense pain came on, following what was thought to be a "stiff neck," and eventually he was obliged to support his head with his hands. Twitchings of the arms, dyspnœa, and dysphagia came on. Before death speech failed him, and dyspnœa became extreme.

Dr. OGLE also described the following case:—

HEMIPLEGIA ON THE RIGHT SIDE—SOFTENING OF THE BRAIN ON BOTH SIDES—PLUGGING UP OF BOTH MIDDLE CEREBRAL ARTERIES BY FIBRINOUS COAGULUM—FIBRINOUS MASSES ADHERENT TO THE MITRAL VALVE-FLAPS AND TO THE LINING OF AURICLE, WHICH WAS ULCERATED AND THE SEAT OF CALCAREOUS DEPOSIT.

The case was that of an anæmic girl, aged 21, who, a few days before admission into St. George's Hospital, had had some sort of a "fit." Her face was anxious; her articulation defective; her words being "clipped," and running one into the other. There was almost complete motor paralysis of the right arm and leg, the tactile sensibility of the skin being much exalted. Later on she miscalled objects and used "wrong" words. An albuminous state of the urine came on, also great quickening of the respiration and circulation. She sank and died three weeks after admission. After death softening of the *left* corpus striatum and of the anterior part of the middle cerebral lobe on the *right* side was found; also plugging up of the commencement of both middle cerebral arteries by fibrinous coagulum, and masses of fibrin adherent to the heart's valves and inner surface of left auricle, as above stated. Blocks of fibrinous material also existed in one kidney.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a General Meeting of the Fellows held on Saturday, June 25, the following gentlemen, having undergone the necessary Examination, were duly admitted Members of the College:—

Charles Hilton Fagge, M.D. Lond., 43, Trinity-square; James Douglas Harrington, M.B. Oxon., The College, St. Bartholomew's Hospital; William Murray, M.D. Durham, Newcastle-on-Tyne; Morell Mackenzie, M.D. Lond., 13, Weymouth-street, Portland-place; Abraham Hely Hutchinson Lattey, 4, Gloucester-gardens, Hyde-park.

At the same meeting the following College officers were elected for the ensuing year:—*Censors*—Patrick Black, M.D., Charles West, M.D., Charles Handfield Jones, M.B., and William Richard Basham, M.D. *Treasurer*—James Alderson, M.D. *Registrar*—Henry Alfred Pitman, M.D. *Examiners*—(*a*) On the Subjects of General Education: Francis Hawkins, M.D., John Spurgin, M.D., and Henry Thompson, M.D.; (*b*) On the Subjects of Professional Education: Anatomy and Physiology—William Orlando Markham, M.D., and William Senhouse Kirkes, M.D.; Materia Medica, Chemistry, &c.—George Owen Rees, M.D., and William Odling, M.B.; Principles and Practice of Medicine—Thomas Alfred Barker, M.D., James Risdon Bennett, M.D.; Principles and Practice of Surgery—Frederick Le Gros Clark, Esq., F.R.C.S., and Campbell G. De Morgan, Esq., F.R.C.S.; Midwifery and the Diseases peculiar to Women—Arthur Farre, M.D., and Robert Barnes, M.D. *Librarian*—William Munk, M.D. *Curators of the Museum*—James Alderson, M.D., G. Hamilton Roe, M.D., William Wegg, M.D., and Francis Sibson, M.D.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, June 23, 1864:—

Charles Bradley, Nottingham; Thomas Haywood Smith, Alcester.

The following gentleman, also on the same day, passed his First Examination:—

Frederic William Adams, Bristol Medical School.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—An additional ordinary meeting of the Fellows of the Society will be held on Tuesday, July 5, at eight p.m., to receive the report of the Scientific Committee on the Uses and Effects of Chloroform.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

CARGILL, JASPER, M.D., to be Surgeon of the Company of Rifle Volunteers, to be formed in the Parish of St. Thomas in the Vale, Jamaica, West Indies.

HAMILTON, ROBERT, M.D. Camb., to be a Member of the Executive Committee of the Island of Jamaica, West Indies.

HARVEY, ALEXANDER, M.D. Edin., has been appointed one of the Lecturers on Clinical Medicine at the Royal Infirmary, Aberdeen.

HOLDEN, LUTHER, F.R.C.S. Eng., has been elected Surgeon to the Foundling Hospital.

STATHAM, HUGH WORTHINGTON, M.R.C.S. Eng., has been elected Apothecary to the Foundling Hospital.

WILLIAMSON, WILLIAM, M.D. Edin., has been appointed one of the Lecturers on Clinical Medicine at the Royal Infirmary, Aberdeen.

DEATHS.

CRANWELL, W., M.D., at Monte Video, South America, on May 6, aged 56.

EDGER, THOMAS S., M.D. Edin., at Gainford, Barnard Castle, Durham, on June 20, aged 66.

HUNTER, ROBERT, M.D., at West George-street, Glasgow, on June 20.

RHODES, D., Surgeon, at Garden-street, Newcastle, on June 6, aged 48.

YOUNG, HUGH, M.D., at Freedom, Beaver County, Pennsylvania, on May 25.

ACADÉMIE DES SCIENCES.—At the last meeting of this learned body, M. Wöhler, of Göttingen, was elected foreign associate in the place of the late Professor Mitscherlich. The other candidates were De la Rive, Geneva; Agassiz, Boston; Airy, Greenwich; Bunsen, Heidelberg; Hamilton, Edinburgh; Martins, Munich; R. Murchison, London; and Struve, Pultava.

NEWS FROM THE ANTIPODES.—The Sydney *Morning Herald* announces that Dr. Fox was drowned while crossing the Hunter, near Denman, on April 20, and on the previous Friday another member of the Profession, Dr. Botton, was drowned at Hinton. Another paragraph in the same journal states that at the very moment that Mr. Botton was generously and courageously saving a fellow-creature from drowning, his own brother, Dr. Botton, lay dead at the bottom of the river at Hunter. Mr. R. Fenwick died on March 25 while under the influence of chloroform; he was undergoing a painful Surgical operation at the time. Dr. Simmons, of Stroud, was tried at Maitland for criminally neglecting to attend a patient. He was found guilty, and sentenced to three months' imprisonment.

THE DUC DE MONTPENSIER.—In our impression of Saturday last we had the pleasure of stating that the Duc de Montpensier was progressing favourably after a very serious illness. This improvement, as since announced, continues. It is, however, right to say that the Physician who assisted Dr. Serrano, the Medical attendant to the Duc de Montpensier, during the most critical phase of his illness, was not Dr. Jenner, but Dr. Gueneau de Mussy, the Physician to the French Royal Family. The Queen, with her usual consideration, testified her sympathy by sending Prince Alfred to make inquiries, accompanied by the Physician of Her Majesty, to offer any assistance that might be needed. Of course, Dr. Serrano and Dr. Gueneau de Mussy welcomed the unexpected arrival of Dr. Jenner, who saw the patient the same evening and again on the following morning, and then returned to London by the early train with his Royal Highness Prince Alfred. Dr. Gueneau de Mussy was telegraphed for on the first appearance of alarming symptoms, and continued to watch the case for a week. Our last report states that the Duke is in full convalescence.—*Times*, Tuesday, June 28.

THE AMERICAN MEDICAL ASSOCIATION.—The American Medical Association, founded in 1847, held its fifteenth annual meeting at New York on June 7, 8, and 9, and seems to have gone off satisfactorily, although the papers which were read are said to have been characterised by marks of haste in their preparation. Delegates came from every part of the Federal States, and the meeting, under the presidency of Dr. Davis, altogether was a successful one. It voted that the introduction of compulsory vaccination into the United States is impracticable, and appointed a committee to memorialise the President in favour of an increase of rank and pay for the Medical staff of the army and navy. A motion was carried reprehending the project of rewarding Dr. Morton by a vote of 200,000 dollars now pending in Congress, the Association being of opinion, in

the first place, that he had placed himself beyond the pale by taking out patents for anæsthetics and prosecuting charities for invading them, and next that he had been amply rewarded already through private beneficence in Boston, New York, Philadelphia, and elsewhere. Numerous committees were appointed to report to the next meeting on various subjects; amongst which were drainage and sewerage, the relations of alcohol, quarantine, microscopical investigations, the aboriginal races, international Medical ethics, climatology and epidemics, etc., etc.

THE SURGEON OF THE "ALABAMA."—The following letters appeared in the *Times* of Thursday, June 30:—

"*To the Editor of the Times.*

"Sir,—We should feel greatly obliged if you could find space in your columns to announce that a committee has been formed, composed of the majority of the Medical staff, together with some of the past and present students of Charing-cross Hospital (where Mr. Llewellyn formerly studied), for the formation of a Llewellyn Memorial Fund, and that subscriptions will be received by the honorary secretaries here, and by the Imperial Bank, 6, Lothbury, and 53, Parliament-street.

"We are, Sir, your obedient servants,

"WILLIAM TRAVERS, } Hon. Secs.
"O. W. BERRY, }

"Charing-cross Hospital, June 29."

"*To the Editor of the Times.*

"Sir,—We are glad to see in your paper of Tuesday that public sympathy is being aroused for the brave Herbert Llewellyn and his bereaved and deeply sorrowing family. As inhabitants of the village in which he was brought up, we are anxious to bear testimony to the high esteem in which we held him. As a boy he was frank and sincere; as a man, self-denying and energetic; and his short life, full of usefulness, has ended in the noblest act of humanity.

"Some fitting memorial we hope to see placed in our little village church, and donations towards so good a cause will be gladly received by the churchwardens of the parish of Easton, near Pewsey, Wilts.

"HENRY F. BUTCHER.
"JOHN CULLEY.
"JOHN T. POWELL.

"Easton, near Pewsey, Wilts, June 29."

UNIVERSITY OF LONDON.—On the morning of Friday last an influential deputation waited on Lord Palmerston to represent the claims of the University of London to have a building provided at the public expense for its own exclusive use. The deputation consisted of the Chancellor (Earl Granville), the Vice-Chancellor (Mr. George Grote, D.C.L., F.R.S.), the Chairman of Convocation (Dr. Storrar), and the following members of the Senate:—Lord Overstone, Sir James Clark, Mr. R. N. Fowler, M.A., Mr. James Heywood, M.A., F.R.S., Sir John G. Shaw Lefevre, D.C.L., F.R.S., Right Hon. Robert Lowe, M.A., M.P., Mr. T. Smith Osler, LL.B., Professor Sharpey, M.D., Sec. R.S., and the Hon. Edward Twisleton, M.A. The Examiners of the University were represented by Dr. William Smith, Professor Bain, M.A., Professor Morris, F.G.S., Professor Guy, M.B., Professor Ellis, Professor Miller, Treasurer R.S., Professor Ramsay, F.G.S., Professor Sharpe, LL.D., Dr. T. Thomson, F.R.S., and Mr. Balfour Stewart, M.A., F.R.S. The deputation—which also included a considerable number of the more distinguished graduates in arts, laws, and Medicine—was introduced by the Chancellor, who briefly explained its objects, and called upon the Registrar (Dr. Carpenter, F.R.S.) to read the statement of these put forward by the Senate, of which the following is an abridgment:—"The University of London—of which the essential function is the conferring of academical degrees upon qualified candidates from all classes and denominations of Her Majesty's subjects, without any distinction whatever—is in every sense a national institution; and as such it is entitled to claim that whatever is necessary for the most efficient discharge of the functions confided to it should be provided out of the national funds. It originated in an address from the House of Commons; it was created and is governed by charters of the Crown; it is supported by annual grants of Parliament; and it is fast rising to a position of even greater importance, as the head of all the higher education of the empire not embraced by the older Universities, than was contemplated on its first establishment. Its history during the twenty-five years which have elapsed since it came into active operation is one of continued progress, notwithstanding the embarrassments which it has experienced from the want of an edifice suitable for the performance of its functions; and the rapid increase in the number of candidates for its examinations which has taken place since its functions were enlarged by the charter of 1858, is sufficient to show the hold it has acquired on the educational sympathies of the country." The claims of the University to a distinct and appropriate building on the Burlington House site were urged by the Vice-Chancellor, the Chairman of Convocation, Dr. William Smith, Professor Ellis, Mr. Ayrton, and Sir Francis Goldsmid. Lord Palmerston stated, in reply, that the Government were fully aware of the great and growing importance of the University of London, and were quite disposed to recognise its claims so far as they could do so consistently with their duty to the country at large. In any application of this nature, the money question was of course the one which must be first met; and he could not be expected to pledge the Government to entertain the application of the University without fuller information as to its requirements. He suggested that the Senate should prepare a definite statement of these, and undertook that full consideration should be given to it.

PRISON DIETARIES.—A very elaborate report on the dietaries proper for county and borough gaols was lately made to the Secretary of State by Dr. Guy, Dr. Maitland (of Gosport), and Dr. Clarke (of Dartmoor), and has been forwarded to the several clerks of the peace for the consideration of the quarter sessions. The report assumes the principle of the dietaries recommended by Sir J. Graham in 1843—that criminals under short sentences should have less food than those sentenced for longer periods, and that that food should consist of fewer elements, and those not of the most attractive character. The principle is also adopted that the prisoner shall pass through the dietaries of all sentences shorter than his own, until he reaches the diet proper to his own term of sentence. A scale of dietaries, five in number, is proposed—namely, for one week, for the next three weeks, for the next two months, for the next three months, and then for the remainder of the sentence; beginning with nothing but bread, potatoes, and Indian meal pudding, and, rising with the length of the imprisonment, to include larger quantities and other constituents—gruel, cheese, suet pudding, and soup. The scale is arranged for prisoners not sentenced to hard labour, that being a term having such diverse meanings in different prisons that it is impossible to arrange for it a single series of diets bearing a due proportion to the sentences; but the additions are pointed out that ought to be made (including from 3 oz. to 4 oz. of meat twice a week after the first month's imprisonment) in the case of prisoners actually set to hard work, understanding that term not to be satisfied by labour which does not visibly quicken the breath and open the pores. It is proposed that the Medical officer shall see every prisoner on admission and certify his fitness or otherwise for this scale of dietaries. It is also laid down that prisoners sentenced to hard labour should not be required to do work which would be injurious to the health of free labourers or would necessitate an abundant and highly nutritious diet. The first week's dietary for men gives them only 32 ounces of bread, 6 of Indian meal pudding, and 8 of potatoes, and the whole series is arranged with the view that the dietaries shall be sufficient, but not more than sufficient, to maintain health and strength, and shall not appear excessive when contrasted with the dietary of the pauper and the free labourer. Special provision is made for women and boys, debtors and bankrupts, prisoners before trial, deserters *en route*, misdemeanants of the first division, and persons under punishment for prison offences. It is estimated that the adoption of this scale of dietaries would save the country £16,000 a-year.

IS COFFEE-ROASTING INJURIOUS TO HEALTH?—PHILLIPS *v.* JOHNSON.—COURT OF QUEEN'S BENCH, WESTMINSTER, JUNE 17.—This was a nuisance case, which had occupied the Court for a great part of three days. It was an action by a greengrocer in Gray's-inn-road against a coffee-roaster in a court at the back of the plaintiff's house, for an alleged nuisance stated to consist partly in the vibration caused by the steam-engine worked by the defendant on his premises for the roasting of coffee and chicory, and partly on the "noxious fumes and vapours" arising therefrom. Both vibration and vapours were denied by the defendant, and, of course, the evidence was very contradictory. Many witnesses were called on both sides, and one of the learned counsel observed that they were apparently, in some degree, imbued with a party character. Those for the plaintiff, the greengrocer, alleged that the fumes of the coffee-roasting caused

headache and nausea. Those for the coffee-roaster, on the contrary, declared that the smell was far from disagreeable, and, at all events, far from noxious, and the defendant himself, and those who were actually engaged in the process, and had been for years, presented themselves in their own proper persons before the jury, as visible proofs that it was certainly not injurious to health. Their evidence was confirmed by that of persons resident in the vicinity, and it received still more important confirmation from the scientific and sanitary testimony of Dr. Gibbons, sanitary officer of the Holborn district Board of Health (who had made a report on the matter), and Dr. Letheby, Medical and Sanitary Officer of the City, both of whom, while admitting that the odour and gases evolved in the process of coffee-roating were disagreeable, denied that they were injurious to health; and Dr. Letheby further testified that in this particular instance reasonable means had been taken to obviate the nuisance alleged to arise from the smell from the process of roasting, which only lasted half an hour, and in the course of it consumed the gases it evolved. He was pressed a good deal as to chicory, and even as to carrots and other articles suggested to be used in adulterating coffee (though not proved to have been roasted by the defendant), but he did not think that the roasting of chicory caused any greater annoyance than coffee; and as to carrots, as they were dearer, he believed they were very rarely used. Being asked what chicory was, he said it was a root or stalk, which was cut up into pieces and roasted. Being pressed as to whether artificial berries were not often substituted for coffee, he declared that he believed not, although he had been engaged in particular researches on the subject. This evidence of course formed the strength of the case for the defence, and was relied upon as raising the important question whether a mere transient emission of a disagreeable smell in the course of a brief process of trade or business, not at all injurious to health, can be in law deemed a nuisance. The jury found on all the issues for the defendant, stating that they did not think either the noise or the smell any substantial injury or nuisance.

A Lawyer's Notion of what Constitutes Imbecility.—The judgment of Sir J. S. Wilde in a late will case, Hart *v.* Chapman, contains some good observations on imbecility. It was alleged that the testatrix was incapable of making a will. "In these cases involving testamentary capacity," said Judge Wilde, "there was a class of evidence commonly resorted to which could not be excluded, but which was, nevertheless, of a most treacherous character. He alluded to that kind of evidence which was the evidence of opinion. There was hardly a case in dispute where you could not find ten or twelve equally competent witnesses of one opinion as to the sanity of a testator, and ten or twelve equally competent of another opinion. This case presented no exception to the rule. A large number of persons were called on each side, all of whom had had ample opportunities of seeing what the disposition of the testatrix was. For the plaintiff, all the witnesses agreed in this—that until within some twelve months of her death she was perfectly capable of transacting her business, and correcting their accounts, and they noticed no difference in her. She was a very silent and reserved woman, and the nurse when asked if the deceased talked with her replied that she did not. There were, however, many persons who did not talk with their servants. The persons called on the other side were mostly persons of a higher class in life, who visited her, and some of them transacted business for her. These people did not hesitate to say that the testatrix had been imbecile and not fit to manage her own affairs. Very properly, the witnesses were examined as to what circumstances they formed their opinions upon. Then it was found that the facts on which they relied were very slight and trifling. Mr. Wilks said the deceased had been in the habit of giving him a fee of two guineas, and in 1860 she only gave him one; she also accused Miss Amos falsely of taking her keys. Now if it had been the case of an old lady constantly reiterating something that did not happen, why then you might think her getting imbecile; but she might have had strong reason for the accusation, although it might have been unfounded. Hardly any one, however, would call that an imbecility; and besides that, the doctor could give no reason for concluding her imbecile. (After enumerating various actions described by defendant's witnesses, which at most were unusual or eccentric, the judge continued.) The Court asked what acts did this lady perform? to what restrictions was she exposed? who did anything for her in consequence of her imbecility that she had been in the habit of doing for herself before? Did she manage her household? give her orders? go over her accounts with her agent and her steward as before? The answer to all these questions must be in the affirmative. The evidence showed that from 1861 she did all these things in the same manner she had been in the habit of doing them before."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

F.R.C.S.—W. D. S., M.D.—The annual election of Fellows into the Council of the Royal College of Surgeons will take place at two o'clock on Thursday next. The President will keep the ballot open ten minutes after the last elector has voted. Perhaps our provincial Fellow and subscriber will be in time to record his vote.

Dr. Roberton's paper is intended for publication.

The publication of our abstract of Professor Huxley's twenty-first Lecture is unavoidably postponed until next week.

Dr. Rattray is thanked, but we believe that the letter in question neither requires nor deserves an answer.

Nil Desperandum.—1. The L.R.C.P. Edin. *is* a licence in Medicine. 2. The qualification is now legally the same, but virtually it is not so acceptable.

A London Hospital Surgeon.—Mr. Elliott, Surgeon to the Chichister Infirmary, has performed lithotomy three times in the same man.

F.R.S. L. & E.—Jean Pittard, who died in 1315, was the founder of the Academy of Surgery at Paris.

X. Y.—Think of Arcachon, a new place rising in importance. Consult Madden's book on change of air, and procure the Almanach d'Arcachon. Dr. Corrigan, of Dublin, also has written on the place.

Bibliopole.—The libraries of the College of Surgeons and the Medical Chirurgical Society are closed, the latter during August, and the former during September. No books can be removed from the College of Surgeons. Write to Mr. Wheatly or Mr. Chatto.

Royal Navy.—The regulations can be obtained of Mr. Fossett, Naval Medical Department, Somerset House. M.R.C.S. Eng. will have to undergo another examination at his College, and also before a Board at the Admiralty, before he can enter that department of her Majesty's service.

A Provincial Surgeon.—The late Dr. Scott, of Portsmouth, was the first Surgeon to perform æsophagotomy in this country; the case was successful. Mr. Cock, of Guy's, has also performed the operation. A case is also recorded in the *Memoires d'Acad. Roy. de Chirurgie, Paris,* in one of the early volumes.

A Metropolitan Student.—The Preliminary Examination for Membership of the College of Surgeons is now going on, and as there will not be another examination until December, you will be prevented from entering on your Hospital studies in October next, when the session commences; but if you pass the Examination in Arts at either the College of Physicians or Apothecaries' Hall, both of which will take place before October, it will exempt you from the ordeal in Lincoln's-inn-fields, and enable you to commence and register your studies in October next. Write to Mr. Randall, at Apothecaries' Hall, or Mr. Copney, of the College of Physicians.

Dub.—1. We think not, because they may practise as Apothecaries. 2. The late decision of the Master of the Rolls (Ireland) is against assuming the title. 3. We learn that men holding the diplomas mentioned are constantly presenting themselves for examination at the Hall *in order that* they may obtain Poor-law appointments. 4. They may be compelled by the Act, but the Act is a dead letter.

Corrigendum.—We wish to rectify an error that appeared last week in our notice of the death of Mr. Llewellyn, the heroic Surgeon of the *Alabama*. We were misinformed as to his parentage. Mr. David Herbert Llewellyn, late Surgeon to the *Alabama*, was the son of the Rev. David Llewellyn, perpetual curate of Easton, near Pewsey, Wilts. He was a godson of the late Lord Herbert, of Lea. He was educated at Charing-cross Hospital, where he distinguished himself as a prizeman. A fellow-student of his writing in the *Standard*, says:—

"He was beloved by all his fellow-students and those with whom he came in contact for his good-heartedness, as well as for his genuine disinterestedness, carried out, as we now see, not only in the everyday occurrences of life, but in the midst of danger and in the face of death itself."

The Position of the Cleft in Harelip.

To the Editor of the Medical Times and Gazette.

Sir,—In Professor Fergusson's lecture, reported in your number of last Saturday, it is stated that he never met with a case of hare-lip where the defect was in the mesial line, like in the animal—the hare. I beg to state that a few months since I delivered a woman in this neighbourhood whose infant had such defect—with a gap in the alveolar ridge; the nose was flattened as though by a severe blow, and the tongue was seen protruding and touching the tip of the nose. The infant lived but a few days.

As this seems to be a very rare case, you may probably deem it worthy of a place in your valuable journal. I am, &c.

Joseph Hazard, M.R.C.S. Eng., L.S.A., Eng.

Litcham, Norfolk, June 28.

Griffin Testimonial Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—At a meeting of the Committee of the Metropolitan Poor-law Medical Officers, held on the 24th inst., the following resolutions were unanimously adopted:—

"1. That in the opinion of this Committee the Poor-law Medical officers of England are under a deep debt of gratitude to Richard Griffin, Esq., of Weymouth, for the untiring zeal, energy, and time which for nearly ten years he has bestowed upon the cause of Poor-law Medical Reform. That the concession to the Poor-law Medical service recommended by the Select Committee on Poor Relief (England) is doubtless in a very great measure due to the perseverance and forcibleness with which Mr. Griffin has invariably advocated the claims of his Poor-law Medical brethren; that, therefore, it is hoped the whole Poor-law Medical Staff of England will unite with a view to some suitable acknowledgment of his past laborious services.

"2. That the present Committee of the Metropolitan Poor-law Medical Officers, with power to add to their number, do form themselves into a Committee for the purpose of giving practical effect to the above resolution.

"3. That Dr. Robert Fowler, 145, Bishopsgate-street Without, be appointed Treasurer and Honorary Secretary to the Griffin Testimonial Fund.

"4. That the Honorary Secretary do issue printed circulars to all the Metropolitan Poor-law Medical officers soliciting their active co-operation and subscription for the object of—Firstly, defraying the outstanding expenses pertainable to Mr. Griffin's Poor-law Medical Reform Fund; and subsequently enabling the whole body to present him with such a testimonial as may hereafter be determined upon."

I trust to have a handsome response to this appeal.

The Poor-law Medical officers will, I am sure, acknowledge not only that our indefatigable champion must not be out of pocket by his exertions in our behalf, but also that he deserves something more than bare thanks at our hands. I beg, therefore, the means to give him a practical expression of our gratitude.

I am, &c.

Robert Fowler, M.D., Hon. Sec. and Treasurer.

145, Bishopsgate-street Without, June 25.

The Dinner for the Hospital for Stone.—A Correction.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I see in a weekly journal called the *London Mirror* a report of the annual dinner in aid of the funds of "the Hospital for Stone." In my speech I am there reported to have said: "The Hospital had had to encounter much opposition, and among its most uncompromising opponents was Mr. Sherman, the editor of the *Medical Times and Gazette*."

Now, Sir, I beg to assure you I never said such a thing; on the contrary, I have always received the greatest consideration and kindness from the editors of the *Medical Times and Gazette*. I have been a constant subscriber to that paper, and its editors have always done me the honour of inserting many papers which I have written. I had, therefore, no reason in the world for making such an unfounded accusation, and most solemnly deny ever having made the statement. I have written to the editor of the *London Mirror*, requesting him to correct the mistake; and I hope, for my sake, you will kindly publish this note.

I am, &c.

5, Grosvenor-street, W., June 29. Armstrong Todd.

Professional Remuneration.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you allow me to direct the attention of your readers to the *resumé* which you have given (June 18) of some articles in the *Union Medicale*, by Dr. Herpin, of Geneva. Reform in the mode of Professional remuneration is the subject of them, and Dr. H. seems to suggest the very form which I had the honour of submitting to the Social Congress last year in Edinburgh. My words are—"Let the family doctor be engaged periodically, at so much (per annum) for all ordinary work. For extraordinary service let him receive an additional fee. Let the acknowledgment in all cases be for advice, and be totally irrespective of the physic that may or may not be necessary." The doctor's bill in the form "For medicine and attendance," "Particulars if required," is the result at which we have arrived by leaving things to take their own course. Imagine this instrument to be headed "Prevention better than cure," a motto which happily is on the fore front of modern medicine. How great would be the incongruity!

It is now six years and more since first I directed attention to this subject. From feelings of delicacy I have mooted the question for the most part indirectly and anonymously; but now that the idea is being canvassed in different quarters, and specially when, as in the pages of one of your contemporaries (*Lancet*, November 14, 1863,) a very similar suggestion is sometimes made, but shorn of much of its Professional character, I think it of importance to speak more openly. The valuable *resumé* to which I have referred leaves nothing to be desired in the way of advocacy, so clearly are the advantages set forth.

I am the more anxious just now to hear what may be said upon this subject, and especially what may be said against it, inasmuch as I am at the present moment in treaty with a publisher with a view to reprint my paper; and I know full well how much I am indebted already to the kindly criticism of those to whom the MSS has been submitted. *Fas est ab hoste doceri.*

I am, &c.

Derby, June 25. William Ogle.

Army Medical Service.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Justice, no matter how tardy, is desirable; but how much is detracted from its desirability when we are unable to feel thankful for it; and so it is with Doctor Gibson, and his late concession, in granting the extension of her Majesty's warrant of 1858 to Indian Medical officers. Why was it ever withheld? We don't thank Dr. Gibson for it now, nothing but the pressure from without, the impossibility of obtaining properly educated men for the service, the rising feeling of the country, who will have qualified Surgeons to attend her soldiers in times of peace and war, caused him to yield. On the faith of the Warrant of 1858, young men of superior education and standing in society entered the service. They imagined the Army Surgeon was to be treated as an educated gentleman, but they soon learned that faith was not to be kept; that the good worked out by an Alexander was not to be continued by a Gibson—the bubble burst, men's eyes began to open, and the supply ceased. Then comes Gibson with the begging-box: "Come to me; I will take you up to 30 years of age;" but no go. "Well, come to me even up to 40 years—no examination, remember; no questions asked, not to leave home, supply the staff men at home, and let me have men to send abroad."

Well, they say, by looking in at taverns and so forth, a supply of acting Assistant-Surgeons has been provided; but is Mr. John Bull going to be done after this fashion?—he likes a bad article at no price; his motto is a good article, cost what it may.

The next grievance of magnitude, and which must be removed before schools and Hospitals will send forth their young blood, is that of promotion, or rather want of promotion. Men are not to pass the flower of life as Assistant-Surgeons—twenty-five years an Assistant—when before was such a thing heard of? It may be asked, What is Dr. Gibson to do if men will not die fast enough to create vacancies? Let him try what can be done in some other direction. Why not shorten the period of service for retirement, and give a better retiring allowance? Would not twenty years' full pay service, spent in all the extremes of climate, from freezing Canada to scorching India; fighting the battle of life with cholera, jungle, and all other fevers of the tropics, not omitting Yellow Jack, be sufficient tax on any constitution, at the expiration of which a man might be allowed to retire, the authorities having obtained their full pound of flesh, and thus facilitate promotion? This will have to be done, and if at once, we will take it as a boon, and be thankful for it.

I am, &c. An Ex-Assistant-Surgeon.

The Preliminary Curriculum for the St. Andrew's Degree.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I beg to call your attention to a statement made in the *Medical Times and Gazette*, in answer to "An Old Practitioner," to the effect that this University "requires residence for its ordinary Medical degrees, as do the other Scottish Universities." If by this it is meant that residence in this University is required of those who present themselves for the degree of M.D.—I mean for the ordinary Medical degree—then it is not correct, seeing that, in section 9 of the Regulations of this University, it is stated that the candidate for the degree of Bachelor of Medicine—the preparatory step for obtaining the ordinary degree of M.D.—shall not be eligible unless, *inter alia*, two years at least of his four years of Medical and Surgical study shall have been in one or more of the Universities and Colleges there named. I think it well to call your attention to this part of the regulation, in order that the statement may be corrected. I beg to enclose a copy of the Regulations.

I am, &c.

Oswald Home Bell, Professor of Medicine,

June 19. University of St. Andrews.

*** The following is the Regulation to which Dr. Bell refers:—

"IX. No one shall be received as a candidate for the degree of Bachelor of Medicine or Master in Surgery unless two years at least of his four years of Medical and Surgical study, as above defined, shall have been in one or more of the following Universities and Colleges, viz.:—The University of St. Andrews; the University of Glasgow; the University of Aberdeen; the University of Edinburgh; the University of Oxford; the University of Cambridge; Trinity College, Dublin; Queen's College, Belfast; Queen's College, Cork; and Queen's College, Galway."

It will be here clearly seen that a University or College residence is required by the University of St. Andrews as by the other Scottish Universities. A man who takes the degree cannot attend his lectures where he likes and live where he pleases. The first Regulation (see below) refers to registered Practitioners, who must be over 40 years of age:—

"I. The degree of Doctor of Medicine may be conferred by the University of St. Andrews on any registered Medical Practitioner above the age of 40 years, whose Professional position and experience are such as, in the estimation of the University, to entitle him to that degree, and who shall, on examination, satisfy the Medical examiners of the sufficiency of his Professional knowledge; provided always that degrees shall not be conferred under this section to a greater number than ten in any one year."

How is a German Degree to be Obtained?

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I should be much obliged if any of your correspondents would answer the following questions for me in the Answers to Correspondents in your journal at an early date:—1. At what German Universities could a L.K.Q.C.P.I. and L.R.C.P.I. obtain the degree of M.D. without any lengthened residence? 2. The amount of fees charged for such degrees.

I am, &c.

June 20. Beta.

The Alteration in Pay for Indian Surgeons.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In case your junior readers may infer from the letter signed "An Indian Surgeon" that Assistant-Surgeons are gainers by the present alteration of pay, I beg to send these few lines; for the disgust of some and the apathy of others may prevent your being able to ventilate the fact that, even for Assistant-Surgeons, the new Warrant is a gross violation of their rights, and an infamous curtailment of their pay.

I admit a few promotions have been given, and that Assistant-Surgeons between six and ten years' service receive an increase of emoluments, when in charge of corps, of 14s. and 28s. a-month if in full or half batta stations; but the pay of 1st class Assistant-Surgeons is reduced above £10 a-month, and so is that of the Junior Assistant-Surgeons in charge of regiments; whilst all extra pay is taken away for extra work done.

Government either are not attempting or are unable to fill the Medical vacancies, so the work of two or three has to be done by one, and the new order will cut off all extra pay for that extra work. Furthermore, the European charges, our prizes, are removed from our service, and handed over to our Royal brethren, but the pay is reduced.

The new order is on a par with what occurred a few years since in Madras on the organisation of the new police. Government issued a circular to all Medical officers, pointing out the great use the new police would be in the country, and hoped they would receive every attention from Medical officers, but that all pay for the work done would be refused; and to carry out the order, they changed the name of a regiment to a police corps, by which means they saved the head-money to which the Medical officer was entitled.

I am, &c.

June 27. A Swindled Assistant-Surgeon.

Death of Dr. Hill.

It is our painful duty to record the death of the respected Resident Surgeon of the Daylesford Hospital, at the age of 33. In our last we stated that Dr. Hill was seriously ill. Death put an end to his sufferings about two a.m. on Friday, April 8. Drs. Vernon, M'Intyre, and Rossetti were most assiduous in their attentions. The deceased suffered from a complication of diseases—nephritis was the immediate cause of death. On Thursday, Dr. Hutchinson, of Castlemaine, was telegraphed for, but he did not arrive, being absent at Kyneton. We are informed that Dr. Hill was a native of Ireland; he was brought up in Devonshire, and studied in the London schools of Medicine. He was Assistant-Surgeon at the London Ophthalmic Hospital for about two years, and was also engaged on board the *Dreadnought* Seamen's Hospital. For some time he had partial charge of a ward in the London Hospital. He first visited this country in 1858, as Surgeon to one of Green's Blackwall ships. After a tour through the colony he returned to England in the *Royal Charter*; on that voyage he was accompanied by two old and respected residents of Daylesford, Messrs. Brabant and Bryce. In 1861 he returned to Victoria in charge of another of Green's ships. About three years ago he took up his abode in Daylesford, and soon got into fair practice, being especially skilful in ophthalmic cases. He had been connected with the Daylesford Hospital from its commencement, two years since. The manner in which he discharged his duties gave general satisfaction. He was Surgeon to the Courts Chevy Chase and Otterburn, of the Order of Foresters, and was hon. Surgeon to the Ancient Order of Shepherds. The members of the above Orders in this district express their hearty respect for the deceased. His brother Practitioners in the town and district acknowledge his ability and deplore his early decease. He was President of the Daylesford Medical Association. The funeral took place on Sunday, April 10. The Freemasons, to the number of about 40, assembled in their Lodge-room, Bridport-street, and marched thence in procession to Jamison's Hotel, where they were joined by the Odd Fellows, Foresters, and Shepherds, who numbered altogether about 200. The *cortege* proceeded to the Hospital, in front of which it was marshalled by Bro. Jamison, the ground outside being occupied by some hundreds of people. Soon after three o'clock the body was conveyed to the hearse, the whole multitude standing uncovered while the service for the dead, used by the Foresters, was read by the Chief Ranger. This done, the procession moved towards the cemetery, the lodges being followed by very many persons on foot and on horseback. The burial service of the Church of England was impressively read by the Rev. Mr. Pryce, and P. M. Trimble read a portion of the Masonic service. Dr. Hill was unmarried; he had not made a will; his estate has, therefore, been handed over to the Curator of Intestate Estates. His personal effects were sold on April 22, and realised about £210. Some real property will be sold in a few days. A Dr. McIntyre is appointed to succeed Dr. Hill as Resident Surgeon.—*The Daylesford Mercury (Australia).*

COMMUNICATIONS have been received from—

Mr. J. J. Williams; Dr. James E. Neild; University College, London; Nil Desperandum; Mr. Peter Hinckes Bird; Dr. A. M. T. Rattray; Dr. J. S. Bushnan; Apothecaries' Hall; Mr. R. Griffin; Dr. William Ogle; Dr. Robert Fowler; The Secretary of the London Hospital; Dr. G. McCoull; Dr. Edwin E. Day; Mr. C. H. Smith; Prof. Struther; Royal Medical and Chirurgical Society; Mr. H. W. Statham; Royal Institution; A Swindled Assistant-Surgeon; Mr. Joseph Hazard; Royal College of Physicians, London; Dr. Fraser; Epidemiological Society; X. Y.; Obstetrical Society of London; Dr. C. R. Bree; Ethnological Society of London; Mr. G. W. Wilkinson; Dr. W. M. White; Dr. J. E. Wood; Alpha; Mr. E. Dakyns.

BOOKS RECEIVED.

Lectures, Chiefly Clinical. By T. K. Chambers, M.D. London: John Churchill and Sons. 1864.

*** This is a much improved and enlarged edition of the clinical lectures which the author had heretofore issued under the title "Renewal of Life." Whatever difference of opinion there may be as to the solidity of the theory of defect of vital force which runs through the work, there can be none as to the vigour and picturesqueness of its style; the broad view which it gives of a vast number of affections very imperfectly described in "systematic" books, and the number of ingenious and suggestive therapeutic hints and histories of cases. Seeing the date May, 1864, on the title-page, we may congratulate the writer on having been able to devote the compulsory leisure of a severe illness to so useful a task, and on the prospect of an early return to the duties of teaching and practice.

Guide in the Sick Room. By R. Barwell, F.R.C.S. London: Macmillan and Co. 1864.

*** This may be pronounced the best of its class. The work of an Hospital Surgeon of large experience amongst the poorer classes of out-patients, it is good not merely for domestic use, but for the Ladies Bountiful who expend their spare time and money in alleviating the distresses of their neighbours.

On Poisoning by Diseased Pork, an Essay on Trichinosis. By Julius Althaus, M.D., &c., Lond. John Churchill and Sons. Pamphlet, 2s.

*** A reprint, with additions, of the very complete and interesting articles which appeared in our columns.

Ireland, Past and Present; the Land and the People. A Lecture by Sir W. R. Wilde. Dublin: McGlashan and Gill.

*** A lecture which has received our warmest commendations.

Handbuch der Gebärmutter-Therapie. Von Edward John Tilt. M.D. Erlangen: Enke. 1864.

*** We are glad to see that Dr. Tilt's Uterine Therapeutics has received the distinction of a German translation.

Leçons sur la Syphilis. De l'Inoculation Syphilique, et de ses Rapports avec la Vaccination, Leçons Professees a l'Hôpital Saint George. Par Henri Lee, Professor de Pathologie Chirurgicale a l'Hôpital Saint George. Traduites de l'Anglais par le Dr. Baudot, Ancien Interne des Hôpitaux, Laureat des Hôpitaux, et de la Faculté de Médecine, &c. Pp. 121. Paris. 1863.

*** We are glad to learn that Mr. Lee's lectures have also been translated into Portuguese.

On Change of Air in the Prevention and Cure of Pulmonary Phthisis. By John C. Thorowgood, M.D. London: H. K. Lewis. 1864. Pamphlet.

*** Dr. Thorowgood justly objects to the preference of low, but still damp, atmospheres, and prefers the dry and bracing, even though cold.

Consumption in Australia. A Review. By W. Thomson. Pamphlet.

*** A cutting up of Dr. Dougan Bird's work on the influence of Australian climate in the prevention and arrest of phthisis.

Le Monde Thermal. No. 173.

*** A chatty paper devoted to gossip about watering-places and health-resorts.

The Principles and Practice of Medicine; designed chiefly for Students of Indian Medical Colleges. By John Peet, M.D. London: John Churchill and Sons. 1864.

*** A capital book; contains much that is new to English Practitioners and indispensable to those practising in hot climates.

Manual of the Medicinal Preparations of Iron. By Harry Napier Draper, F.C.S. Dublin: Fannin and Co.

The Morningside Mirror. No. 8.

Thirty-seventh Annual Report of the Royal Society for the Prevention of Cruelty to Animals. 1863.

The Edinburgh University Calendar, 1864-5. Edinburgh: Maclachlan and Stewart. 1864.

A Year Book of Medicine, Surgery, and their Allied Sciences for 1863. Vol. 23 of the New Sydenham Society's Works.

The Social Science Review. June, 1864.

Bulletin de l'Académie Royal de Médecine de Belgique. Vol. VI., No. 10. Bruxelles. 1863.

The Medical Mirror. June, 1864. London: H. K. Lewis.

Homes Without Hands. By the Rev. J. G. Wood, M.A., F.L.S. Part 6. London: Longman and Co.

British and Foreign Spirits; their History, Manufacture, Properties, etc. By Charles Tovey. London: Whittaker and Co. 1864.

Stimulants and Narcotics: their Mutual Relations. By Francis E. Anstie, M.D. London: Macmillan and Co. 1864.

Montpellier Medical Journal Mensuel de Médécine. Mai, 1864. Montpellier: Boehm et Fils, Place de l'Observatoire.

On the Economical Use of Fuel, and the Prevention of Smoke in Domestic Fireplaces. By Frederick Edwards, jun. London: R. Hardwicke. 1864.

Force and Matter; Empirico-Philosophical Studies intelligibly rendered. With an additional introduction expressly written for this edition by Dr. Louis Buchner. Edited from the last edition of "Kraft and Stoff" by J. T. Collingwood, F.R.S.L., F.G.S. London: Trübner and Co., 60, Paternoster-row. 1864.

On Diseases of the Throat and Windpipe as Reflected by the Laryngoscope. Embellished with 116 engravings. By George Duncan Gibb, M.D., M.A. Second Edition. London: John Churchill and Sons, New Burlington-street.

On the Investigation of the Prevalent Diseases of the District by Means of a System of Registration. By G. Hare Philipson. Newcastle-on-Tyne: M. and W. Lambert, 50, Grey-street.

The Hunslet Poor-law Enquiry into the Conduct of the Master and Surgeon. Conducted by W. Corbett, Esq. Leeds: Edward Baines and Sons. 1864.

On Change of Climate. By Thomas M. Madden, M.D. London: T. C. Newby. 1864.

APPOINTMENTS FOR THE WEEK.

July 2. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

4. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

Epidemiological Society, 8 p.m. Dr. Francis Bowen, "On the Results of Re-vaccination in the British and some of the Continental Armies."

Royal Institution, 2 p.m. General Monthly Meeting.

5. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Ethnological Society of London, 8 p.m. Professor Huxley, "On Certain Japanese and African Cannibal Skulls." Mr. Vámbéry, "On the Kirghis and other Tribes of Central Asia."

Royal Medical and Chirurgical Society, 8 p.m. Report of the Scientific Committee on the Uses and Effects of Chloroform.

6. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.

Obstetrical Society of London, 8 p.m. Adjourned Discussion on Dr. Greenhalgh's paper "On Placenta Prævia." Mr. Gant, "Dissection of the Uterus in a Case of Placenta Prævia." Dr. Wynn Williams, "On Missed Labour."

7. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

8. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

HUBBUCK'S PURE OXIDE OF ZINC.

Sold by the London Wholesale Druggists, in Boxes, 14 lbs. each, stamped by the Manufacturers.

DINNEFORD AND CO., PHARMACEUTICAL CHEMISTS

Respectfully refer the Medical Profession to their highly effective preparations:—

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NEW BRITISH PHARMACOPŒIA.

172, NEW BOND-STREET, LONDON.

CHLORODYNE CHANCERY SUIT.

JANUARY 11th, 1864.

BROWNE AND DAVENPORT versus FREEMAN.

"It was fully proved and established in Court, before Vice-Chancellor Sir W. P. Wood, that Dr. John Collis Browne was the Discoverer of Chlorodyne.

"The Vice-Chancellor observed that Dr. J. Collis Browne's Chlorodyne was known before the Defendant 'Freeman' had ever thought of using the word; that the Defendant's conduct led to a very strong suspicion that there was a gradual course of proceeding on his part to mislead people into the belief that, when they bought his medicine, they were purchasing Dr. J. Collis Browne's Chlorodyne; and that, if the Plaintiffs could show that any one had actually been deceived, an Injunction would be granted."—*Times*, January 12.

Affidavits from eminent Physicians and Surgeons of the Metropolitan Hospitals proved, beyond doubt, that Dr. J. Collis Browne was the discoverer of Chlorodyne; that they prescribe it largely, and invariably mean the original Chlorodyne of Dr. J. Collis Browne.

An Affidavit by Mr. Warington, Chemical Operator to the Apothecaries' Company of London, also established the fact, that Dr. Browne was the inventor of Chlorodyne; that the Company receive large orders for the supply of Chlorodyne for the Public Service, Hospitals, Merchants, and the Profession; and that, when Chlorodyne is ordered, they invariably supply Dr. J. C. Browne's.

Affidavits from Messrs. John Bell, Pharmaceutical Chemists, 338, Oxford-street, and several leading Wholesale Druggists of London, to the same effect, and that, when Chlorodyne is ordered, they invariably supply Dr. J. Collis Browne's.

Sole Manufacturer—J. T. DAVENPORT, 33, Great Russell-street, Bloomsbury, London.

In Bottles, 1 oz, 3s.; 2 oz., 5s.; 4 oz., 8s.; 10 oz., 15s.

Neither Physician nor Surgeon in plaintiff's suit even mentioned Freeman's compound; so much for the *truth* of its being the *preferred* medicine, as stated by the defendant. It is equally untrue that the Vice-Chancellor intimated in the slightest degree that the defendant had the right to the sole use of the prefix Original, as quoted in his advertisement in the "Pharmaceutical Journal," March 1, 1864.

The observations of the Vice-Chancellor, as reported in the "Times," speak for themselves.

Each Affidavit from Physicians, Surgeons, and Chemists affirms that Dr. Browne's Chlorodyne was known to them in 1855; whereas the Defendant "Freeman's" Compound was not heard of until 1859, after the Original Chlorodyne had obtained world-wide fame.

TOWLE'S CHLORODYNE.

OF KNOWN COMPOSITION.

For Formula, &c., see back Numbers.

Extract of Letter from Dr. C. KIDD (Author of Standard Works on Chloroform).—"SIR,— . . Of the value of Chloroform given internally I have no doubt; it appears to me in that form an anodyne, *sui generis*, that no other anodyne can approach. I have resolutely opposed the use of *secret* compounds of chloroform, and in every way I can encourage the use of the 'Chlorodyne' (if we must have it at all) that is made by you, as you state that its composition is known. Many Medical men think with me, and recommend your compound, but will never prescribe a secret remedy.—CHAS. KIDD, M.D.—Sackville-street, Piccadilly, London, April, 1862.—To Mr A. P. Towle."

Extract of Letter from ALFRED ASPLAND, Esq., F.R.C.S. Eng., J. P. Chester and Lancaster, Surgeon 4th Cheshire Batt. V.R., Surgeon to the Ashton Infirmary.—"After an extensive trial of your Chlorodyne in Hospital, Infirmary, and Private Practice, I am able to state that it is a valuable medicine. I have found its action peculiarly serviceable in Bronchial, Spasmodic, and Neuralgic Affections. I have never found it produce headache or feverish disturbance, results which not unfrequently occur from other forms of Chlorodyne. As a sedative to allay excitement arising from the abuse of intoxicating drinks, so commonly witnessed in our Barrack Hospital, I have been perfectly satisfied with it. Its known composition will doubtless prove an additional recommendation to the Profession.—To Mr. A. P. Towle."

Sold by Wholesale Houses in bottles, 1 oz., 1s. 6d.; 2 oz., 2s. 6d.; 4 oz., 4s.; and 8 oz., 8s.

SOLE MANUFACTURER—A. P. TOWLE, CHEMIST, &c., 99, STOCKPORT-ROAD, MANCHESTER.

LIQ. CHLOROFORMI CO. (TOWLE'S).

This preparation is identical with "Towle's Chlorodyne," *sine* Ol. Menth. Pip. (dose 5 to 20 minims, as in Chlorodyne).

The Proprietor having for some time past, at the request of several members of the Medical Profession, made a preparation of Chlorodyne without peppermint, has lately, on account of the frequency of these demands, prepared the same for more general use, under the designation of LIQUOR CHLOROFORMI CO., which, possessing the Medical properties of Chlorodyne, may be prescribed in all cases where the Ol. Menth. Pip. is disapproved, and overcome the objection so generally felt to the use of the term "Chlorodyne."

May be obtained, as an introduction, from the following Wholesale Houses, in 2 and 4 oz. bottles, at 2s. 6d. and 4s. each:—London: Barclay and Sons, 95, Farringdon-street. Birmingham: Southall, Son, and Dymond. Liverpool: Clay, Dod, and Case. Edinburgh: Duncan, Flockhart, and Co. Glasgow: The Apothecaries' Company. Dublin: Bewley, Hamilton, and Co. Manchester: Jas. Woolley; and the

Proprietor—A. P. TOWLE, 99, STOCKPORT-ROAD, MANCHESTER.

ORIGINAL LECTURES.

LECTURES
ON THE
PROGRESS OF SURGERY DURING THE PRESENT CENTURY.

DELIVERED AT
The Royal College of Surgeons,
By Professor FERGUSSON.

LECTURE V.—WEDNESDAY, JUNE 15, 1864.

MR. PRESIDENT AND GENTLEMEN,—In preceding lectures I have referred again and again to excisions or resections as being characteristic of modern Surgery. These terms are applied, in various ways and directions, to cutting, scraping, and gouging, to the removal of exfoliations and sequestra, as nature thrusts these effete parts before the eyes and hands of Surgeons—to the extraction, by judicious cuttings, of small or large portions of the long or flat bones—to the separation of entire bones, with, in many instances, a boldness and skill, adding romance, as it were, to the art of Surgery—to the ablation of a phalanx, or of an entire scapula, and to the excision of the ends of bones constituting moveable and important articulations. These are themes worthy of the highest reach of practical Surgery—worthy of all that one in my position could say regarding them, and more than worthy of the humble efforts which I can make to bear upon them.

Thanks, in my opinion, to the skill, labour, judgment, and forcible example of the Professor of Clinical Surgery in the University of Edinburgh, excision of the elbow joint has now become a great fact in surgery. Where there is doubt or mismanagement on this subject, Surgery is thirty years at least behind. To the same authority, aided largely by examples from military practice, we may attribute our confirmed ideas regarding the advantage of excision of the head of the humerus in appropriate cases. Excisions of the ankle and hip have each been largely developed by our youngest Councilman, Mr. Hancock. These—the wrist, and even the joint of the great toe—have all had the attention and action of your humble servant; but in none of them have I taken such personal interest as in excision of the knee; and I mean to devote this lecture to such a sketch of that subject as shall possibly give it further interest in the estimation of those who have inclined towards and those who have opposed it.

Whilst every anatomist recognises the analogy between the upper and lower extremity, the physiologist and Surgeon sees the vast difference in both action and function and position. In particular, in reference to our own matters, we have to recognise the difference in bulk, and the difference in that which is destined to carry and that which has to be carried. The upper extremity is carried; the lower has to carry. Man may be characterised by the largeness of his brain, by his superior intelligence, by his prehensible powers, his qualities as a cooking animal; but there is no physical feature so characteristic of the genus homo as the perfection of his lower or hinder extremities. Even the gorilla, supposed by enthusiasts to be next to the missing link in our frail humanity, falls eminently behind man, in respect of his lower or hinder extremities.

How, or why, then, may I ask, have we Surgeons been so careless on this object? How does it happen that when disease of the knee-joint has been, to all appearance, incurable, we have heedlessly, recklessly, removed one of the most perfect characteristics of our superiority of configuration in animal life? There is no denying the fact, and it has been a proud boast among us, that when hectic has been running its uncontrolled course in conjunction with severe chronic disease of the knee, the malady has been suddenly arrested by the amputation of the limb? Something like natural sleep has been obtained within a few hours after this formidable ordeal; the pain of the wound has been as nothing compared with that of the disease, and the pulse has fallen rapidly towards a natural standard. To say the truth, there does appear at a superficial glance here a mighty and beneficial agency on the part of Surgery. Yet it is obtained at an enormous sacrifice. A perfect foot, a nearly perfect leg, a considerable portion of a nearly healthy thigh, have been removed, and loss of life from the amputation has often followed; yet, with all these drawbacks, the results of the operation have appeared so satisfactory that life has been willingly staked by both patient and Surgeon, with the eager hope of safety and relief from that which has become beyond human endurance. Until a comparatively modern date it seemed scarcely to have entered the Surgeon's mind that better could be done. And so, in badly diseased knee-joints, there seems to have been no alternative between a painful and possibly shortened existence, and the chance of a formidable operation, which involved great risk of life, and included the actual loss of well-nigh one-fourth of the frame. Few seem ever to have thought that there could be any alternative, except that of letting Nature struggle on as she best might, in the faint hope that the disease would wear itself out; and so when Parke first announced a novel and successful expedient to remove the disease, and leave a yet useful member, the fact made but little impression on either the Profession or the public. It is specially worthy of remark in this theatre, that the name of Parke is associated in this history with that of one to whose memory we all reverence and most worthily give the utmost respect. It was a great honour done by the Surgeon of the Liverpool Hospital to Percival Pott, of Bartholomew's, London, when, in September, 1782, he wrote "a few sheets in which," to use his own language, "I hope to show that in some of the affections of the knee and elbow, in which amputation has hitherto been deemed indispensably necessary, Surgery has yet another resource, which, as far as my reading and experience enable me to judge, has not yet been attempted by any other Practitioner. The resource I mean is the total extirpation of the articulation." Parke had actually underlined the latter words—thereby, as it were, upholding impressively the originality of the expression. Four-fifths of a century have passed since Parke thus wrote, and the last echo to this grand announcement is thus recorded in 1861 by one of the present Surgeons and lecturers on Surgery:—"The excision of joints does not find much favour at St. Bartholomew's; it has been practised only once, and that in the elbow." This refers to the year 1860; but there are many excuses for the great Percival Pott. If he, as a leading star, took no action on such an announcement, he in this respect but resembled his fellow mortals. Not a breath, not a pen, not a knife stirred in England on the subject. Even Moreau, the father, although in a manner inspired by our English Surgeon, failed to impress upon his immediate contemporaries any possible value of the extirpation of an articulation. His modest effort was as little heeded as that from the banks of the Mersey. Although Parke and Moreau had shown that which had not previously been dreamt of, each passed to his grave with hardly even a recognition by their contemporaries of the great things they had done; but, as with many poets and painters, their greatest fame has been posthumous; and my own impression is, that even to the present day the value of their labours has not been thoroughly recognised.

It is a remarkable fact that, in referring to excision of the knee and elbow, Parke invariably put the operation on the lower extremity foremost. This was doubtless because he had operated on the knee first on the living body. Although he suggested both operations, it was reserved for the elder Moreau to have the honour of first performing that on the elbow. This now famous operation was performed upon June 26, 1797, fifteen years after the date of Parke's announcement. The ingenuous Frenchman gave Parke his full credit, and in that respect differs from some of our own countrymen, who have evinced a disposition to award the honours regarding the early start of excision of the knee to Filkin, of Northwich, who, as stated by his son some twenty years after, performed this operation successfully in 1792. But Filkin's case, like that of Justamond's partial resection of the elbow, had no influence or control on Parke's original conceptions. The knowledge of these cases came to him at second-hand afterwards; and he it was, in fact, who first gave them notoriety when publishing his second case of excision of the knee in 1789. Had it not been for Parke himself, these cases would probably have been shrouded in everlasting obscurity. They no more detract from the merit of the Liverpool Surgeon than do the occasional excisions of the elbow, said to have been practised in the Midland districts of England since his time, from the just credit due to Mr. Syme, of Edinburgh, for the revival of that operation.

My present time will not permit much further historical references. Suffice it to say that a profound slumber closed upon the efforts of Parke and the Moreaus until within our

own period. A few spasmodic efforts seem to have been made from time to time, and among our own countrymen none so remarkable as those of Hewson, Crampton, and Syme. The two first seemed comparatively apathetic on the subject, and the proceeding was discouraged by the latter, who, some thirty years ago, operated on two cases, from which experience he expressed himself unfavourable to the proceeding. Nothing but the usual discouraging notice was said of it for about twenty years, whilst during that time excision of the elbow became an established operation. Often and often had I myself felt deeply grieved to see a well-made foot, totally free from disease, and a leg on which the pathologist could scarcely glance, swept away by amputation in the thigh for disease of the knee. Often did I think of the Jesuistical expression, by those who knew no better, that amputation is the opprobrium of Surgery. Why, I thought, should excision of the knee, in incurable disease of the joint, not do as much in proportion as excision of the elbow in a similar condition? What but bulk or comparative magnitude constituted the great difference between these two operations? If excision of the elbow saved a useful hand and forearm, why should not excision of the knee be equally useful in saving the foot and leg? The comparative size of the limb and joint seemed the grand objection; but here it became a question whether excision of the knee or amputation in the thigh might prove most or least hazardous to life. These latter points seemed to me those of the greatest interest in regard to this proceeding; for whilst we had had indifferent results as regards the condition of the limb after both operations, we had the recorded experience of Parke regarding his first case, in referring to it six or seven years after, that the patient had made several voyages to sea, in which he was able to go aloft with considerable agility, and to perform all the duties of a seaman; that he was twice shipwrecked, and suffered great hardships without feeling any further complaint in that limb. It seemed to me that this great question had never been investigated. One or two cases here and there did not appear to me sufficient to settle such an important matter.

In July, 1850, I performed the operation on a patient in King's College Hospital, in whom the circumstances seemed most favourable. Whilst there was painful disease, of which the patient was tired, and for which he willingly consented to amputation, there was youth and apparent health elsewhere. The disease seemed limited to the cartilages, and I could not fancy a more favourable instance for the object I had in view; yet nothing could have been more disastrous than the result of this operation. The patient died, after sufferings equal to any I had seen following great operations; in particular, the starting of the limb seemed equal to, if not more troublesome, than any I had ever witnessed in compound fracture of the lower limb, or after amputation. A post mortem examination showed that acute necrosis of the lower end of the femur had ensued. I confess that I was in some degree daunted by this case; yet, as I had seen as much local mischief, and also death, occur in equally promising cases after amputation of the thigh, I resolved to stay my judgment.

Not long after, the late Mr. Jones, of Jersey, essayed the operation with more satisfactory results; and, as time rolled on, his highly successful repetitions, as well as the operations of others, attracted the attention of many of the young Surgeons of the day. Among these I may particularise Dr. Richard Mackenzie, Surgeon to the Royal Infirmary of Edinburgh, who, although remarkably familiar with excision of the elbow, took the trouble of a distant journey and voyage to see Mr. Jones's cases and operations. The impression on his mind was such as to induce further investigation, and had it not been for his untimely death in pursuit of Professional knowledge and honour at the cannon's mouth in the Crimea, I have no doubt in my own mind that we might have had by this date an amount of evidence for and against that would have gone far to settle in the minds of many who still doubted the very important question as to the eligibility of this operation.

Beyond the impression which my own humble exertions and example made, none went further for a time than that produced by the active practice of Mr. Jones. That gentleman, in a comparatively limited sphere, operated on fifteen cases, and in fourteen of these with success. Various pupils of my own devoted special attention to this subject, among whom I may mention Mackenzie, Smith, Edwards, and Price; but, fortunately, there were others on whom my personal influence might be supposed to have little effect, who wished to give trial to this comparatively novel proceeding, and thus the operation was practically tested on a pretty extensive scale. It seems almost invidious to mention names where so many are concerned, and it may suffice, particularly for my present purposes, if I refer to the writings of Mr. Butcher, of Dublin; Mr. Pemberton, of Birmingham; and Dr. Humphry, of Cambridge. These gentlemen have, each in his own way, given remarkable notoriety to this operation; and it was, at a still more recent date, put again before the Profession by Mr. W. N. Clarke, of Bristol, in a paper of great research, which he read to the British Medical Association in August, 1863.

Excision of the knee seems, like all similar operations on other joints, a very formidable process, particularly when performed on the normal tissues in the dead, or when witnessed by any one not familiar with such operations on the living body. The destruction of tissues and parts on the dead, before the component parts of a joint can be cut away, seems more than human strength can bear or survive; and the chaos of tissues, structures, and surfaces, with, in most instances, the discharge and separation of blood, pus, and substance perceptible in the living body, naturally lead any one as yet uninitiated to this practice, to the conclusion that, for roughness, tediousness, magnitude, and irregularity of surface, the chances of the patient for limb or life seem slender indeed.

There is scarcely a coarser operation in Surgery than excision of the elbow; yet in the present day no one objects to it, either on that account or on any other, unless it be some old stagers, who adhere, even in the wane of the ninteenth century, to the customs of their grandfathers. Excision of the knee is simple and elegant in comparison, although it must look formidable in all respects to the novice.

It is a common custom to compare amputations and excisions, as regards local appearance and facilities of proceeding, and amputation invariably carries the palm. The clean incised wound in the arm or leg, for disease of the elbow or knee, seems what might be called a luxury to the patient, when compared with the haggling process of excision: yet in excision the member is left, in amputation it is gone—no human power can restore it. Look to the condition of one who has had his arm amputated for disease of the elbow-joint, and look to one who has had an equally successful excision. No artificial substitute can compare with the human hand.

If excision of the elbow has superseded amputation of the arm, as a general practice, for incurable disease of the elbow, why should the practice not hold equally good in the lower limb? That is a question which I for years put to myself, which I still do, though in a less uncertain mood; and it is a question which I avail myself of such an opportunity as this to put again to myself and to the Profession.

Who among us have yet discussed this question practically? A few gentlemen who have had considerable experience have declared in favour of the operation; and a few, with less, have evinced a leaning to the old system of mutilation; but the great objectors of all have been those who have had no personal experience whatever, or who possibly have formed their opinions upon a single case or two, where the result has been questionable or has failed. The subject has still to be dealt with fairly and dispassionately. I doubt if I can do either, although possibly, having the largest practical personal experience on it of any man living, I fear that I am prejudiced. Although my efforts in public practice have been made with the hope that, by encouraging others to undertake the operation, I might one day be able to say, with more forcible authority, that the proceeding is one which should be either abandoned or adopted in the practice of Surgery, I cannot say that my hopes, in this latter respect, have been realised; the proceeding has not been adopted as a practice in any great Hospital in Britain, unless, indeed, I except that with which I have myself the honour to be connected. Many operations of the kind have indeed been performed in our public Hospitals, and I feel bound to say that these have been chiefly what are called provincial and country. This is not the place, nor is it the time, to discuss the merits of Hospitals within or without the line of the metropolitan or great school districts; but it is beyond a doubt that this proceeding has been more largely practised and more considerably dealt with in provincial practice than in the recognised and accredited metropolitan seats of learning and instruction. In Dublin, Jersey, Cambridge, Birmingham, Manchester, Aberdeen, Exeter, Bristol, it has been more frequently performed than within the circle around Lincoln's-inn-fields. Next to King's College, I believe that it has been oftener performed at St. Thomas's than elsewhere in town; and, in as far as I am aware, the experience in other Hospitals in London has

been so comparatively limited that we have no important data to go upon from it; for, whilst the best results have ensued in some instances, the worst have occurred in others.

The value of this proceeding has been variously estimated by different writers. Usually it has been compared with amputation in the thigh, and the relative fatality has been the test. With some the rapidity of closing of the wound and discharge as cured have been thought of most importance; and with others the condition of the limb afterwards has absorbed most attention. Strange to say, the preserved limb has rarely, if ever, been compared or contrasted with a stump in the thigh, or with its intended fac-simile, as made out in the shape of a cork or wooden substitute.

The value of human life is comparatively so surpassing—the continued union of soul and body is of such importance in our estimation—that the chances of life and death must always form an exciting subject for consideration, when an operation of importance is in contemplation; and here, as in other departments of operative Surgery, it is right that a question of such weight should be placed first.

The largest number of cases treated by a single hand heretofore published is that of Mr. Jones—the cases already referred to; and, in as far as I know, the next largest is that of Dr. Humphry, related to the Medico-Chirurgical Society in March, 1858. Of thirteen cases treated by this gentleman only one died; and in this paper the reserve step with some who had practically thought of the operation was first prominently brought under notice. In the instances in which the operation seemed to have failed amputation in the thigh was performed, and there were four such in this number. Of thirteen excisions, twelve lives were saved. In how far a similar success as regards life would have followed amputation, had it been the chosen operation, no man can tell. Dr. Humphrey candidly expressed his own opinion in concluding the paper referred to that he doubted not that he should not have obtained an equally good result by any other mode of treatment.

Hitherto all other lists from individual Surgeons of this country have been few in number; and, still speaking in comparative ignorance, the cases which I myself have dealt with are perhaps the most numerous. I have now performed this operation forty times, and of these no less than fifteen have died more or less directly from the operation. This fatality, it must be remarked, is wonderfully greater than that of the operations above referred to, and as regards the aspect which I am now considering such large loss of life might go far to settle the question of fatality as compared with amputation in the thigh, yet I am not disposed to acquiesce in this view. I may myself have been too zealous, and resorted to the operation where I should have selected amputation, when death would have passed as an ordinary chance. I cannot overlook that I had not the advantages for my patient of the pure air of Jersey or of Cambridge, of Exeter or of Bristol; nor can I even fancy that the site of King's College Hospital, on the verge of Clare-market and Drury-lane, although within touch of the Royal College of Surgeons of England, could be compared for salubrity with that of St. Bartholomew's, St. Thomas's, or St. George's. There is the authority in print of a famous London alderman that Smithfield is the healthiest spot in London, and I cannot but think that if a like number of cases of this operation had been performed by the Surgeons of the Hospitals referred to we might have had recorded a success well nigh equal to that of Messrs. Jones and Humphry and of the Bristol Surgeons.

But, even with the fatality following my own personal experience, I am not disposed to take an unfavourable view of the operation, for, looking to all that I have seen and done as regards amputation, I hesitate to say that I should have been more successful in saving life to a larger extent in the same individuals had amputation been resorted to. Against this practice of my own I can place ten other operations in King's College Hospital, performed by my colleagues, with the death of only one patient, and this view of the fatality of the proceeding can be rapidly modified by adding such success as has been gained by Jones and Humphery. I know, moreover, that in certain provincial Hospitals the results have been highly satisfactory. Besides the details published by Mr. Clarke, of Bristol, I may here state that I was made acquainted, during a recent visit to the Exeter Hospital, with the marked success of the Surgeons of that institution, who had operated in about a dozen cases within the last few years, without, as I understood, losing one. So putting these cases with my own, the average would have a very different aspect indeed.

The largest number of collected and original cases with which I am acquainted was made some years ago by my friend and former assistant, Mr. Price. The list amounted to nearly 250, and went to show that the fatality was pretty much the same in excision of the knee and amputation in the thigh. I do not think that as yet we have data of greater importance on this point. The success or want of success in amputation in the thigh, as detailed by Mr. James, of Exeter, Mr. Bryant, of St. Thomas's, and Mr. Callender, of St. Bartholomew's, can have no direct bearing on this question, until a like number of cases of excision of the knee, in the same or similar institutions, can be brought to bear on the point. There is nothing in physiology, anatomy, pathology, or practical manipulation which should make this operation more hazardous to life, in proportion to amputation in the thigh, than excision of the limb is in proportion to amputation in the arm.

My impression is, that excision of the knee is, or should be, by proper treatment, as little destructive to life as amputation in the thigh; and if this is proved and granted, as, possibly, it may be in time, then I firmly believe that all other objections to this operation must pass away, like those which so long retarded the application of excision to the elbow.

The time required for a cure, so-called, has been deemed a great element in connexion with this operation. It has been common, in amputation of the thigh, to dismiss patients from Hospitals, or for them to give up regular attendance in the course of three, five, seven, or ten weeks. Six weeks may be taken as a favourable average period to show the rapidity of cure. Little, or perhaps no notice has been taken of some small sores or sinuses still present, nor has the after-course of these or of the stump been specially referred to, excepting when, perhaps many months or years after, there has been a necessity to repeat an amputation for an ill-conditioned stump, or to remove some portion or portions of necrosed bone. But even then a whisper has never been raised against amputation, or the particular kind of amputation, or possibly the Surgeon who performed the operation may have been criticised freely; but the fault has never been, and very properly so, in my opinion, laid to amputation itself, as a Surgical operation.

In the elbow and shoulder, where excisions are extolled or sanctioned, the wounds are in reality often slow in healing—months, ay, years elapsing in some most satisfactory cases before the sinuses are perfectly healed. But, in such instances, the patients can move about with seeming little defect; the arm can be carried; but if anything prevents the lower limb doing its proper function, the defect is more manifest. As the knee is big in proportion to the elbow, so may the entire healing process in excision be longer in proportion; and as the subsequent strain upon the lower limb is greater than that upon the upper, so must there be greater time given for a perfect result.

These features, with a slight variety, are admitted between stumps of the upper extremity; and they seem to be equally worthy of attention in the cases of excision; but, in my opinion, a mistake has been committed in such comparison, for the wound, in all great features, is not different from that of amputation, and the continued presence of the lower part of the limb constitutes such an important fact, as compared with its absence, that it seems to me a waste of time and argument to dwell further on this question. The true comparison of excision of the knee is with compound fracture of the lower end of the femur or the upper end of the tibia, possibly connected with the knee-joint, or with a direct penetrating wound of the joint itself, which has exposed the interior to the surrounding air.

If I am not much mistaken, the feeling in modern Surgery is, that time is of little moment contrasted with a useful and therefore creditable limb. If months, even years, elapse before such results are effected, do Surgeon or patient ever begrudge the time? Is there a Surgeon of experience who has not felt his heart palpitate with pleasure on looking at one of these illustrations of the powers of nature, and on his own faith and skill, in bringing about such a pleasing conclusion? In compound fracture, say, of the shaft of the tibia, has he not been gratified, even after the separation of inches of necrosed bone, to see a useful limb retained. Does he not feel in his heart that Ambrose Parè and Percival Pott did not live and suffer in vain?

As a compound fracture in the lower extremity is uncertain and slow in healing compared with a simple one, so may the wound in excision of the knee be compared with the healing of a stump. But, to put this part of my argument briefly and on a practical basis, I admit freely that such wounds are gene-

rally more slow, much more slow, in healing than others. Yet I have seen, after excision of the knee,—what I have never seen after compound fracture of the tibia,—patients walking about freely on crutches eight weeks, six weeks, even three weeks afterwards, some even putting the foot to the ground with a pressure which no stump of the thigh could have borne at such a date.

But I must refer to this subject again, and to give it justice I must bring other points under your notice. The condition of the limb afterwards has perhaps attracted most attention. In a brief lecture like this, and coming near the end of it too, it would be impossible to notice all that has been said on this subject. The result in Pott's first case seems to have been almost overlooked. From 1789, until within these few years, all by silent assent seemed to have sanctioned the conclusion that a stump of the thigh and an artificial limb, whatever its kind, were better than protracted disease or death. Excision well-nigh slept, and, with perhaps the exception of what had been done and said by Crampton, Syme, myself, and Jones, no one seemed to have thought seriously on the subject. But it is now attracting the attention of others, and,—I cannot finish this subject in a single lecture,—I am extremely reluctant to do so,—but I shall defer telling you what others have said and done regarding the subject till I have next the honour of addressing you.

ORIGINAL COMMUNICATIONS.

MOVEABLE KIDNEYS GIVING RISE TO SYMPTOMS OF PREGNANCY.

By EDWIN E. DAY, M.R.C.P. Lond.

Assistant-Physician for Diseases of Women and Children, King's College Hospital.

The fact that kidneys are sometimes moveable is one on which some scepticism exists. On the Continent this condition has been well described by Professor Oppolzer, M. Rayer, and others, and in this country Dr. Hare has published in the *Medical Times and Gazette* (first vol. for 1858) some good lectures upon the subject.

To the general remark "Has it been found after death?" Mr. Durham has given a satisfactory answer by producing to the members of the Medico-Chirurgical Society the parts of a body in which the kidneys were abnormally situated and moveable. Professor Simpson mentions a case in which the kidney was surrounded by a special mesentery, thus giving it considerable range of motion.

There are three or four things with which they could be confounded.

1st. Fæcal masses in the colon.

2nd. Moveable spleen.

3rd. Tumours of the omentum or mesentery.

And lastly, some women have the power of throwing their psoas muscle into partial contraction, thus simulating this state of kidney.

Purgatives would decide the first point. The spleen would be larger than any kidney, and would, of course, be found on the left side, while it is commonly the right kidney which is moveable. Tumours of the mesentery or omentum would probably be confined to one side, and they would be anterior to the position of the kidney. The absence of the hilum would be a good assistance in determining the character of the tumour.

Dr. Priestley, in the *Medical Times and Gazette*, 1857, vol. 1, p. 262, said he was convinced that some of the cases of spurious pregnancy which had come under his notice were cases of moveable kidney, but he did not give any cases; the following one may, therefore, be of interest in bearing out that opinion:—

Mrs. W., aged 37, applied at King's College Hospital on June 3, 1864, under the following circumstances:—She was married, and had had one child five years before. Since that time she had menstruated regularly till September last, when she was much frightened by the ceiling of her room falling in. After that she missed two periods and supposed herself pregnant, and was therefore surprised at finding that at the third period the catamenia returned, and have continued regular since. She still thought herself in the family way, as, to use her own words, "she had felt the movements of the child;" but the nine months having passed without any change in her condition, she was anxious to have my opinion as to her state.

On making an abdominal examination, I found that the abdomen was tympanitic, and that there was no uterine tumour whatever, but in the right iliac fossa I felt a tumour, which slipped readily away from my hand, and upon closer examination was determined to be the right kidney. The hilum was readily felt, and the space over which the kidney could be moved was about three or four inches. On examining the left side, that kidney was also found moveable, but it was not so low down as the right. It was situated just below the level of the ribs, and could be moved over an area of two or three inches.

The movements which she had considered fœtal were thus clearly to be attributed to these moveable kidneys.

In order to make the diagnosis more sure, I sent her into the Hospital under the care of Dr. G. Johnson, who agreed in the opinion I had expressed.

48, Hertford-street, Mayfair.

LITHOTOMY IN SMYRNA.

By JAMES McCRAITH, M.D.,

Surgeon to the British Seamen's Hospital, Smyrna.

(Continued from page 6.)

My first few operations were lateral, but for latter operations I have adopted the median, and I prefer it. The grooved directors I use are French; they are very much bent, almost at a right angle, the bend round, not angular. My instruments are of the simplest kind. I use only two cutting instruments, a common bistoury and a pointed one, with the sharp point ground off. These, with a catheter and syringe to inject the bladder, and forceps of various sizes, are the only instruments necessary. I divide the skin freely from the scrotum to near the anus, continuing the incision round between the anus and ischium. I divide the deep parts to nearly the same extent, that is, the superficial fascia and cellular membrane. I then draw forward the grooved staff, to make the angle prominent in the membranous part of the urethra, and when I am satisfied as to its position, I divide the urethra in its membranous part, with the pointed bistoury; and when I find I have come in the groove, I take the sound in my left hand, and pass it, with the bistoury firmly held in the groove, into the bladder, cutting out as I withdraw the bistoury to the requisite extent as I may judge necessary. Keeping the sound in the bladder, I pass my finger (the left index) into the wound (I am possessed of a long and slender one), and if I find the opening in the bladder too small, I divide the tense tissues with the pointed bistoury, using the finger as a director; it is the best of all directors. I can now usually touch (in children certainly) the stone with the point of the finger. If so, I pass the forceps, first withdrawing the sound, and endeavour to seize the stone. When I have seized the stone I gradually bring it down, and if it proves too large to give a hope of bringing it away by the gradual dilatation of the parts, I divide with the bistoury all the parts, first anteriorly and posteriorly, which I can see will enlarge the opening; and if, having cut as far back and forward as I conceive I can do with safety, the opening be still too small, I then cut laterally—in fact, sufficiently to extract the calculus—endeavouring, as much as possible, that it shall be in most favourable position for extraction with regard to its shape. I have never cut a very fat patient with very deep perineum. If such presents itself, I conceive the operation will be attended with more difficulty. One must work more with instruments and less with the finger. Once I reach the bladder I never leave it, if possible, without some instrument passed into it, till the stone be extracted. The patients have all been under chloroform. One or two of the first operations were under ether. One of my patients was a young Jew of 16 or 17 years of age. The operation was performed at his own house. All the elders of the family, and I believe neighbourhood, were present, collected in galleries all round. Many of the Jewish houses have large central rooms surrounded by galleries, like a theatre. It was the first time chloroform was exhibited in Smyrna, at least amongst the Jews. They had never heard of such a thing. He was immediately got under its influence deeply. The operation was quickly done, but the youth remained under its influence for nearly a quarter of an hour; but as the colour, and pulse, and breathing remained natural, I was not under much apprehension. I ordered the doors and windows to be opened, dashed him

occasionally with some cold water. At length I perceived a slight twitching of the orbicularis, and asking his name I was told "Israel." I put my mouth close to his ear, and called out in a loud voice "Israel." At the instant he opened his eyes, sat up on the table, and asked, "When are you going to cut me?" ("Quando me tadiarete?" in his Spanish tongue.) If an artist were present, and could paint some of the old faces, with flowing beards, and the looks of utter astonishment on those typical Jewish faces, he would have a representation of the miracles of old. It is No. 1 on the list.

In the centre of one calculus was a long fibrous body, forming the nucleus. I believe it is woody fibre. When recently exposed it was of a deep scarlet colour, that of purpurate of ammonia when fresh. I cannot explain why it was of such a colour. It is No. 4 on the list.

One calculus has a considerable cavity, of irregular form, between two layers of oxalate of lime, lined with shining crystals, not central, as if formed by the shrinking or drying up of some body originally existing there between those layers. It is No. 14. There are other smaller cavities. The small shining crystals are phosphates.

The chemical composition was determined as follows:—The calculus was sawn through its long diameter, and the resulting powder was analysed. This gave, of course, the general chemical composition. If the layers were not homogenous, any layer appearing different was analysed separately. The phosphates were distinguished by the presence of phosphoric acid, made evident by the formation of the yellow phosphate of silver to the usual reagents—a few grains of the powder calcined to whiteness in the flame of a spirit lamp were dissolved on the white porcelain cover of a small crucible in nitric acid, a drop of sol. ammonia added, and then a drop of solut. nitrat. argent showed the clear, beautiful yellow phosp. argenti on the white ground. The urates were treated by placing a few grains on the porcelain cover, as above, adding a few drops of strong nitric acid, and afterwards drying cautiously in the flame of the spirit lamp; by augmenting the heat, the presence of the rich purpurate is shown, and the addition of a drop of ammonia will give the beautiful crimson tint. The absence of phosphoric acid in the calcined powder indicates the pure oxalate of lime, the oxalic acid being either entirely burnt away, or leaving the lime in the form of carbonate or quick lime, according to the degree of heat. A piece of the calculus fused under the blow-pipe in one case, No. 17, showing the composition to be the mixed phosphates.

The calculus No. 26, when entire must have been a most beautiful specimen of the pure oxalate. The tuberosities on its surface, large and regular, and each protuberance most regularly and beautifully covered by small tubercules; in fact, it appears like a conglomeration of black mulberries, the colour a very dark mahogany; it is most graphically distinguished as the mulberry calculus. In all the other oxalate of lime calculi there is more or less of urates or phosphates filling up the interstices. The first 18 cases I operated on myself, 9 of the others I assisted at, and 3 cases were not witnessed by me; of these 3 latter, one calculus, No. 30, was taken from a tomb. The patient suffered many years from symptoms of stone; would not be operated on, and died. The Doctor did not lose sight of his patient, but paid the people who remove the bones at the end of twelve months (the flesh is eaten up very quickly after burial by rats in the burial grounds attached to the Greek churches here) to find for him the stone which he knew must exist. Grave inherits grave here, and the Greek gravediggers, in placing the new tenant, found the calculus and brought it to the doctor, who gave it to me. One of these three cases I know was successful, and I believe a second also was successful, so that of the entire thirty cases, or rather twenty-nine that were operated on, there were three fatal cases.

As the mortality after lithotomy is at present occupying general attention, I send you this account of our practice and its results in this anciently renowned city of Asia Minor.

Smyrna, April 25.

No.	Weight.	Dimensions.	Shape.	Composition.	Age.	General Appearance.	Result.
		Inches.					
1	ʒiiss.	1½ by 15-16	Round oval	Oxalate of lime	8	Tuberculated. Whitish	Cure.
2	ʒvij.	1 by 1⅞	Long oval	Triple phosphates and urates	4	Irregular protuberances. Grey stone colour.	Cure. Convalescence slow.
3	ʒiss.	1 by ¾	Flattish oval	Triple phosphates	5	Long, shining crystals, all standing on end, like a rolled porcupine.	Cure in ten days.
4	ʒiij., grs. xx.	1½ each side, ⅜ depth	Flat triangular	Urate of ammonia	14	Smooth; laminated on section.	Cure in eight days.
5	ʒiij., grs. xx.	1⅝ by 1½, depth ⅝	Long flattish	Urates and phosphates	5	Smooth whitish	Cure.
6	ʒv., grs. xxv.	1st part 1⅝ by 1⅛; 2nd do. wastaken away piecemeal	Hour-glass	Urates and phosphates	15	Upper part was of round form; lower part pear-shaped.	Death on third day.
7	ʒiij., grs. xx.	1⅝ by 1	Round long	Urates with some phosphates	6	On section, compact layers and porous-looking layers.	Cure.
8	1. ʒvi.; 2. ʒiv. grs. xxx.	1½ by 1½; 1¼ by 1⅛	Flattish oval (both)	Uric acid	70	Smooth, and polished where rubbing against each other in the bladder.	Death in four days.
9	ʒss.	11-16 each side	Triangular flat	Oxalate outside, urates inside	24	Dark and horny	Cure.
10	ʒiij.	1¼ by 1	Oval flattish	External layer urates, middle oxalates, nucleus mixed.	5	Whitish	Cure.
11	ʒss.	⅜ by ⅝	Round oval	Uric acid	25	Reddish; an agglomeration of small millet-seed-like calculi.	Cure.
12	ʒj., grs. l.	1¼ by ⅞	Oval flat	Outer layer urates, inner ditto oxalates.	8	Whitish	Cure.
13	℈ij.	¾ by ½	Flat oval	Urate of ammonia	20	Whitish	Cure.
14	ʒiij., grs. x.	1½ by 1⅛	Irregular oval	Outer layer oxalates, inner ditto urates.	20	A protuberance at one end corresponding to a central cavity.	Cure.
15	ʒj. and ℈ij.	1 by ¾	Regular oval	Outer phosphates, inner oxalates.	12	Whitish	Cure.
16	ʒj., grs. x.	⅞ by 1	Egg shaped	Mixed urates and phosphates	20	Whitish	Cure.
17	ʒiv. or ʒv.	Lithotripsy		Mixed phosphates	30		Female. Cure.
18	℈j.	⅝ by 2-8	Long round	Oxalate of lime	10	Black, and covered with protuberances.	Cure.
19	ʒj., grs. vi.	⅞ by ⅝	Egg shaped	Urate of ammonia and oxalates.	20	Seems to have a double nucleus.	Cure.
20	ʒv.	2 by 1	Long round	Urates, concentric layers	50		Cure, I believe.
21	ʒiss.	1⅛ by ⅝	Long round	Urate of ammonia	1½	Whitish colour	Cure.
22	ʒj., grs. iv.	1¼ by ¾	Long round	Urate of ammonia	7		Death from peritonitis.
23	ʒj., grs. xl.; ʒj., grs. xxxvi.	1⅛ by 6-8; Long side 1, short ⅞	Long flattish; Flat triangular	Oxalates, urates outside; Ditto ditto	9	Surfaces polished where rubbing against each other.	Cure.
24	ʒiij.	2¾ by 2½, depth 1¼	Flattish triangular	Oxalates and urates	22	Section very beautiful, like agate.	Cure.
25	ʒiij., grs. xl.; ʒiss.	2⅛ by ⅞; 1 by ½ deep	Long irregular; Flattish triangular	Urates and phosphates	25	Whitish	Cure.
26	ʒiij., originally ʒvi. at least	Was of roundish form	Originally round	Pure oxalate of lime	17	Broke in two large pieces and *débris*.	Cure.
27	ʒij., grs. xx.	1⅜ by ¾	Long round	Urate of ammonia	20	Section laminated	Cure.
28	ʒij,, grs. xx.	1 by ⅝	Roundish	Oxalates and urates	9	Centre oxalate, outside urates. Fortification appearance on section.	Cure.
29	grs. xxv.	6-8 by ⅜	Oval egg-shaped	Nucleus phosphates, outer layers urates	25		Cure.
30	ʒivss. whn. entire	2¾ by 2½, depth 2	Flattish, oval, roundish	Urate of ammonia		Concentered layers	Taken from a tomb

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

VALVULAR DISEASE OF THE HEART — HEMIPLEGIA ON THE LEFT SIDE, WITH NO LOSS OF SPEECH—HEMIPLEGIA ON THE RIGHT, WITH LOSS OF SPEECH—DEATH—AUTOPSY.

(Under the care of Dr. A. P. STEWART.)

The following case, which has been long in our hands, is given verbatim as sent to us by Mr. W. M. H. Welby, with remarks by that gentleman. It is of great value as an instance of disease of the right side of the brain with no loss of speech, and disease on the left with loss of that faculty. It was some time ago pointed out by M. Broca that diseases on the left side of the brain was more frequently associated with loss of speech.

Dr. Hughlings Jackson states that he has now seen in his practice and in that of his colleagues, Dr. Ramskill and Dr. Radcliffe, at the Hospital for Epilepsy and Paralysis, forty cases of loss of speech with hemiplegia on the right side, and but one with hemiplegia on the left. In many of them there was valvular disease of the heart. This is a mere statement of facts, and does not imply any conclusion as to which side of the brain is the seat of the faculty of speech.

In this case, however, there was no loss of speech in the attack the patient had before admission; but in the first after admission he had hemiplegia on the left side, and no loss of speech, and then hemiplegia on the right, with increase of paralysis on the left, and loss of speech. Both middle cerebral arteries were found plugged.

Of course, no one can affirm that hemiplegia on the right side is even generally attended by loss of speech, but that when with loss of speech there is hemiplegia, the hemiplegia is nearly always on the right side.

J. C. (admitted into the Middlesex Hospital on August 14, 1862, under the care of Dr. A. P. Stewart), aged 21, a jeweller, naturally pale, with dark-brown hair, hazel eyes, and long dark eyelashes. Father died of phthisis. When 10 years old, patient had chorea, which commenced on the left side, caused by a fright. Recovered under Medical treatment in six weeks. Had syphilis when 18; rheumatic fever when 19.

History of Illness.—Early in the evening of August 13 he was suddenly attacked with choreic movements of left arm and leg, which continued for several hours. Next morning he found that his right limbs were powerless. Sight, speech, and hearing unaffected throughout attack; no nausea, vomiting, nor vertigo. Rigor three weeks ago, since which he has felt languid and depressed.

State on Admission.—Quite conscious; face drawn slightly to right side; complete loss of power of left arm and leg, sensation however not quite destroyed; says affected side and limbs feel very numb; slight headache over right brow; pupils large, equal and act equally to light; tongue furred, protruded to left of mesial line, sensation of tongue more complete on right than on left side; swallows without difficulty; cardiac dulness greatly increased, vertically five and a-half inches, transversely four and a-quarter inches; powerful impulse of apex at lower border of sixth rib; intense and harsh double murmur heard from immediately below clavicle to apex, and also to outside of nipple; pulse 100, full, labouring, and with very perceptible backward stroke; visible pulsation of almost all arteries of body; breath sounds normal. Ordered two grains of calomel and three of extract of henbane every six hours.

15th.—Slept tolerably, perspiring freely. Cannot move left arm, but can make slight pressure with fingers; can move left leg very slightly, but complains of pain extending up leg to side on so doing; feels pain when pinched on left side or limbs; articulates with tolerable distinctness, and swallows without difficulty; tongue as before; pupils large, equal, and sluggish; pulse 96; urine acid, sp. gr. 1020, no albumen.

Treatment.—To be cupped behind right ear to amount of four ounces. Ordered one drop of croton oil in mucilage directly, and ten grains of nitrate of potash in peppermint water every six hours.

18th.—Traction of mouth to right side rather less; returning power of left arm and leg, but pains on moving the limb still severe; tongue as before; bowels freely open; pulse 96; heart sounds continue the same; headache over right brow to-day disappeared; pupils unchanged. To continue draught.

20th.—Is gradually progressing, though still very weak. Ordered three ounces of port daily, and half a drachm of the syrup of the iodide of iron three times a day after meals. To have a chop daily.

September 19.—For last three weeks patient has been able to walk about the wards with the assistance of a stick; sleeps well; appetite fair; has lost flesh and is very pale; complains only of pain in right knee, which has a natural appearance. To continue as before; opium plaster to knee.

20th.—To-day walked round garden without assistance.

21st.—The nurse, finding from another that he was again suddenly paralysed, with loss of speech, called the clinical assistant, when the following symptoms were noted:—4 a.m.—Lying on back, and perspiring freely; expression anxious; complete loss of power and sensibility of left side; cannot protrude tongue, or speak, but is quite conscious, and can make an attempt to speak when addressed, pointing to region of heart when asked if he had pain anywhere; swallows with difficulty; hearing unaffected; pupils very large, equal, and act equally to light; no drawing of mouth to either side. Omit draught. To have two grains of calomel directly; cold lotions to brow. 11 a.m.—Still conscious. He wrote a few words with right hand in pencil asking to see friends, paper being held for him by another patient. 2 p.m.—Fit, attended with convulsive movements of all limbs; passed urine involuntarily during attack; pupils still rather large, and act feebly to light; seems feeble, but conscious; pulse 130; heart acting with violence; sounds as on admission; cannot swallow. Head to be shaved; blister to crown. Enemata of beef-tea, with ʒj. of wine every four hours. 4 p.m.—Pulse 100; pupils almost fully dilated, and act very feebly to light; distinct loss of power and sensibility of right side; left side as before. 10 p.m.—Still conscious; occasionally puts both arms out of bed, and can draw up legs when soles of feet are tickled; pulse 102; pupils as before.

22nd, 10 a.m.—Has had convulsive movements of limbs, especially hands, at intervals during night; pupils small, but sensible. 10.15.—Pupils larger, sensible. 1 p.m.—Unconscious; breathing stertorous; left pupil large and right pupil much smaller—act feebly to light; frequent convulsive movements. 2.30 p.m.—Pulse, 96, thrilling; quite unconscious; breathing stertorous; respiration, 18; irregular interval between breaths; eyelids semi-closed; pupils equal, moderately dilated, insensible to light; all arteries of body pulsate strongly, except those of right leg below knee-joint, which pulsate very feebly; motions and urine passed in bed; sordes on lips and teeth. 4 p.m.—Died.

23rd.—*Autopsy Fourteen Hours after Death.*—Brain: Both middle cerebral arteries are filled with fibrinous plugs and semi-coagulated blood. At each extremity of the Sylvian fissures is a mass of diffluent brain substance about the size of walnut. On the right side the softening extended into the corresponding lateral ventricle. No appearance of any old blood clot. The right lateral ventricle is completely filled with coagulated blood, which is also found in a lesser quantity in left lateral and in fourth and fifth ventricles, a large clot pressing on medulla oblongota at base of brain. No other arteries plugged. Arachnoïd membrane thickened and opaque, especially over sulci of brain. Thorax: Lungs healthy; heart weighs ʒxxj.; walls of ventricles much hypertrophied; both aortic and mitral valves were covered with fibrinous vegetations, both on free edges and curtains of valves; neither orifice much contracted; some vegetations also on tricuspid valves. Abdomen: Pericardium non-adherent, contains an ounce of clear serum; spleen weighs ʒxix.; in lower part is a conical mass, about the size of a horse-chesnut, of cheesy consistence, presenting, under the microscope, abundance of oil globules and granular matter; right kidney also contains a similar deposit, size of a pea; other viscera present no unusual appearance; right anterior tibial artery contained several small clots of blood.

Remarks.—From the preceding facts it may be concluded that the valvular disease and hypertrophy of heart was primarily due to rheumatic endocarditis. That fibrinous plugs had been detached from valves of heart, and carried into middle cerebral vessels, cutting off supply of blood, and causing softening of brain substance in the neighbourhood of those vessels, and, as a consequence, paralysis. That the patient's subsequent gradual improvement was due to the establishment of a collateral circulation. That the second

attack was due to rupture of vessels in the vicinity of softening in right hemisphere, and extravasation of blood first into right lateral ventricle, and then through the foramen of Monro into other ventricles, which extravasation was the cause of death. The rupture of vessels in brain was probably induced by the increased action of heart, consequent on the exercise in garden of Hospital taken the day before.

CASE OF EMBOLISM CONNECTED WITH DISEASED AORTIC VALVES—PLUGGING OF ARTERIES OF BRAIN AND SPLEEN—FREQUENT ATTACKS OF HEMIPLEGIA ATTACKING ALTERNATELY DIFFERENT SIDES OF BODY — DEATH — POST-MORTEM EXAMINATION.

(Under the care of Dr. HENRY THOMPSON.)

This case, too, points in the same direction as the other. It will be seen that the patient's paralytic symptoms were at first chiefly on the right side; but the paralysis was never marked. On the day when he lost speech (June 26), being able only to say "Yes" and "No," he could get out of bed; but a further note on the 27th shows that the paralysis, which was on the right side, although slight, was decided. The paralysis passed off, but returned July 6, and was gone again by the 10th. There is no further note bearing on speech; but on the 20th it is stated that his mental condition was improved, and that he could write. After passing through several conditions, including delirium, we come to August 7, when it is said that "he talks sensibly and complains of no particular pain."

On August 8 we come to another stage: the patient has hemiplegia on the left side, and cannot talk. Now, it may be said, that here is an instance of paralysis on the left side, and loss of speech; but if we look more carefully into the facts, it will be found that this is not so certain, as the patient was weak on both sides and had recently had paralysis on the right. Then the defect in speech seems rather like loss of power of articulation than of mental expression. The patient could not put out his tongue. This itself might be taken as decisive evidence that the defect in talking was due to paralysis of the tongue, indicating rather disease of the origin of the ninth nerves than of the hemispheres—*i.e.*, more paralysis of motion than loss of mind. But in reality it does not, taken alone, amount to much; for it is a rule that patients who have hemiplegia with loss of speech—*i.e.*, of the faculty of language, for some time, do not put out the tongue when told. It is a loss of *voluntary* power over the tongue, and not a total paralysis of its muscles. The proof of this is that the patient can eat and swallow (semi-involuntary acts) well when he does not put out the tongue at all; and again, the patient in time puts out his tongue well, and yet talks no better. Now, when the tongue is really paralysed, the patient can eat only with the greatest difficulty. Dr. Thompson's patient seems to have lost more than voluntary power over the tongue, as he had difficulty in swallowing; and again, to show that his inability to talk depended on the tongue, and not on mental power of expression, is rendered certain by the note on the 10th that he could answer questions in writing. The hemiplegia on the left side is not associated with loss of speech, the mental defect alluded to in our remarks on the first case, but with paralysis of the parts concerned in articulation. When the hemiplegia was on the right side he could articulate, for he could say "Yes" and "No," but not speak well, as he could not answer questions requiring more reply than assent or dissent. In the cases we have seen in which the patient could only say "Yes" or "No," it was a chance whether they used the words at the right or the wrong time. But the case is too complicated to be used as definite evidence.

For the report of this case we are indebted to Mr. Newman, Clinical Assistant to the Hospital.

Wm. L., aged 23, a photographic colourist, was admitted into Cambridge Ward, on June 24, 1863. He complained only of debility, and his chief evident symptoms being those of hectic.

When 9 years of age he had a severe attack of acute rheumatism, unattended with any symptom of heart affection. About three years ago he first noticed palpitation of the heart after exercise, and he was then informed by a Medical man that his heart was diseased. This palpitation has continued since. For eleven years of his life preceding the last year and a-half he had been a silver plater, and working in the fumes of copper, zinc, mercury, etc. He had syphilis three years ago, and then mercury to salivation.

Two months ago, when residing at Oxford, he noticed a gradually increasing feeling of languor and general malaise, and that on falling to sleep he invariably broke out into a profuse perspiration. About two weeks after this he had a benumbed feeling in his hands and feet, with occasionally a pricking sensation. These symptoms having continued about ten days, he had repeated and violent tremors of the whole body, but unattended with loss of consciousness, and best relieved by cold affusion to the head and extremities. He was treated for these symptoms with some form of mercury till ptyalism was produced. They passed off in about five days' time, and since then he has been gradually losing flesh and growing more and more debilitated, having occasional headaches and night sweats.

On admission his cheeks were flushed; his eyes suffused; his expression of face was haggard and weak; pulse 120, bounding, and somewhat sharp and thrilling; tongue coated with a thick creamy fur; breath sounds very indistinct anteriorly, weak, and accompanied near spine of right scapula with a few moist sounds. There is a double murmur heard at præcordia, which, however, principally replaces the second sound, and is heard loudest at the base, but most distinctly at the third right intercostal space, at a distance of two and a-half inches from the sternum.

He was ordered a mixture containing dilute sulphuric acid, chloric ether, and one grain of disulphate of quinine. The bowels being confined, he was ordered an aperient pill. For diet he was ordered strong beef-tea. The urine was passed freely, and in due quantity, alkaline, sp. gr. of 1025, and contained no albumen.

June 25.—Bowels have been freely opened. Complains of pain of right foot, and of a benumbed feeling similar to that experienced previous to his serious illness five weeks ago.

26th.—Wandering and restless delirium last night, getting out of bed, etc., but became quieter after the application of cold cloths to his head and the administration of a camphor and henbane pill. This morning he is very restless, and wanders considerably. He is partially sensible, however, but unable to answer those questions requiring a longer answer than "Yes" or "No." There is slight inflammation of the conjunctiva of the left eye; head hot; face flushed; tongue coated; pulse 96, bounding and sharp. A few indistinct persistent brownish spots noticed over the surface of the abdomen. Ordered the application of blistering paper to head. To omit the quinine, repeating the chloric œther and dilute sulphuric acid every six hours, with, intermediately, a pill containing two grains of camphor and three of extract of henbane.

27th.—The blister has risen well, but his mental condition has not improved. The tongue is distinctly protruded to the right side, and the right pupil is more dilated than the left. The numbness of the right foot is still felt occasionally, but there is no notable paralysis of either side, though the power of grasping is decidedly stronger with the left hand.

July 1.—The hemiplegic symptoms have passed off. Pupils normal, and the power of grasping with the respective hands seems about equal. Blistered surface nearly healed. Pulse 90, of the same character as before, very thrilling; bowels open; urine normal. Ordered to repeat the draught every four hours, and to have ungt. acet. pot. tart. applied to the head.

3rd.—He complains of having felt a transitory numbness of the left leg. His mental condition has improved. Has had no rigors or profuse sweatings since admission. The petechiæ on abdomen before described are increasing in number.

6th.—Hemiplegic symptoms of right side have again appeared, but on the 10th they had again vanished. Abundant purpuric spots on abdomen and thorax, and some are observed on inner and outer surfaces of eyelids. Urine is loaded with phosphates, has a specific gravity of 1015. His general condition is much improved, and he complains of hunger. Ordered a mixture containing chlorate of potash and hydrochloric acid, and for diet a chop and two eggs daily.

20th.— Has continued much the same since last note, complaining of occasional numbness and tingling of both hands and feet, and sometimes of pain in them. Fresh purpuric spots are continually appearing. Mental condition has decidedly improved, and he is able to read, distinguishing distinctly the words and letters. Small doses of the tincture of the muriate of iron have been added to his mixture during the last four days, and to-day he was ordered one drachm of cod-liver oil twice a-day. He has no headache, sleeps well, and has a good appetite.

22nd.—Complained yesterday of occasional and severe pain

in head, but this was relieved by a mustard poultice to back of neck. Heart's action excited, but pulses are regular. The bruits are the same as on admission. Fresh purpuric spots on lower eyelid to-day, but the old ones seem gradually fading. Slight diarrhœa, which came on during the night.

24th.—The diarrhœa still continuing, he was ordered a draught containing the aromatic confection after each action of the bowels.

26th.—Diarrhœa has now abated. To-day complains of stiffness of lower jaw, with pain in left temporo-maxillary articulation on attempting to open his mouth. He was ordered to have the painful part painted with compound tincture of iodine.

28th.—Stiffness and pain in jaw now much less, and he is able to protrude the tongue. No marked diarrhœa, but motions are relaxed. Tongue slightly coated. Has no headache. Appetite failing for the last few days. Pupils are equally dilated, and there is no marked paralysis of either extremity. Emaciation is extreme, and has become most marked recently.

30th, 10.30 p.m.—Slightly delirious. Pulse quick, full, and double. Complains of great thirst and of pain in the occipital region. Head hot; temporal arteries throbbing; as also the great vessels of the neck. Respiration hurried and irregular. Many small fresh spots to be observed over chest and abdomen. Ordered an evaporating lotion to head, a mustard poultice to back of neck, and a pill of camphor and henbane.

31st.—He has had no sleep during the night. Diarrhœa has come on again violently towards morning. Is very restless, and only partially conscious. Urine and fæces are now both passed involuntarily. Ordered one ounce and a-half of compound chalk mixture every four hours. Head to be shaved, and iodised collodion (equal parts) to be applied to the occiput.

August 2.—Is in much the same state to-day, but the diarrhœa is less marked. Ordered six ounces of sherry wine daily, and a mixture containing five minims of muriate of iron (tincture), half a drachm of the compound spirit of sulphuric œther, with five minims of dilute hydrochloric acid every six hours To have blistering paper applied behind each ear.

7th.—Has had another attack of diarrhœa within last few days, but now better. Last night got out of bed and wandered about the ward, disturbing the patients. He was ordered in the night a five-grain camphor and henbane pill, which had no effect, but on its being repeated two hours afterwards sleep was produced. To-day he talks sensibly, and complains of no particular pain. Ordered to repeat last night's pill at bed-time to-night.

8th, 6 p.m.—He has been unusually quiet all day, and in a sort of listless mood. He was unable to use his hands to eat his dinner, and the nurse found on feeding him that he had slight difficulty in swallowing. He has now apparently no power of swallowing, and his voice is almost inaudible. There is general but hardly complete paralysis of the left side of body. Left pupil is more dilated than the right. He is quite unable to protrude the tongue. Lies very quiet, and is not at all restless. Face is pale. Tongue clean. Pulse 72, of moderate power. Ordered a blister to the right side of head, and a mixture containing five grains of chlorate of potash and five minims of dilute hydrochloric acid.

9th.—Condition much as yesterday, but the loss of power of left side is now complete. Sensation and the reflex action of the left side remain unimpaired. Face much flushed. No distortion. Tongue dry and brown. He is unable to protrude tongue. Extremities warm. Unable to reply to questions put to him, nor does he seem to understand them thoroughly. Passes urine involuntarily. Ordered a draught containing chlorate of potash, as the power of swallowing has so far returned as to enable him to swallow fluids in small quantities; also to have every six hours an enema, composed of strong beef tea, three ounces, with one ounce of port wine.

10th.—Can swallow a little better to-day. Has retained two of the beef-tea and wine enemata; able to move toe of left foot, and nurse states that during the night he moved the leg itself. Still unable to speak or protrude the tongue, but is perfectly conscious, replying to questions put to him by writing the answers, and writing also his wants. There are only a few slight twitchings of muscles of left foot and leg when the sole is tickled. Bowels have not acted for two days. Ordered a turpentine enema directly.

11th.—Retained the turpentine enema, as well as those of the beef-tea and wine. His state this morning is much the same as yesterday. Pulse 96, weak and thrilling; blistered surface healed. Ordered to have the blister repeated for two hours, and followed by a cotton wool dressing. Also ordered a draught containing ten minims each of æther, chlor., and dilute sulphuric acid, c. ʒss. of sulphate of magn. every six hours.

12th, 10 p.m.—Creaking, crackling, and sibilant sounds heard over right side of chest, with considerable dyspnœa and rattling in the throat. General condition much the same. Bowels remain obstinately constipated. Ordered an aloetic enema immediately.

13th.—Enema of aloes retained, as well as the enemata of strong beef-tea since. Bronchitic and pleuritic friction-sounds seem intensified over whole of chest; expression is wearied, and pulse much weaker; is evidently gradually sinking. Ordered to repeat the nutrient enemata every four hours, and to have applied a mustard poultice to back and front of chest.

He gradually sank, and at 1.30 a.m., August 14, he died.

Post-mortem Examination at 2 o'clock, August 14, 1862, Twelve Hours after Death.—Body extremely emaciated. Pericardium contains about five ounces of yellow serum. Heart large; rather pale; weighs one pound; two small soft masses of recently effused lymph on pericardium near the apex; pulmonary and tricuspid valves are healthy; the right cavities contain a large quantity of coagulated yellow and partially bloody fibrine; walls of left ventricle considerably hypertrophied. The adjacent surfaces of mitral valve are perfectly healthy, but the aortic surface of right flap is covered with a great abundance of soft reddish vegetations easily detached, and some of them being united to the flap by only a very fine pedicle; aortic valves insufficient, and are covered with vegetations of same character as the above. Left lung and pleura normal. Right lung firmly adherent to chest walls by recently organised lymph; the lung itself is normal, and is crepitant; but both lungs are somewhat congested. Spleen much enlarged; weighs one pound five ounces; very adherent to abdominal walls, the under surface of diaphragm, and to the surrounding organs; capsule is very easily separable; the pulp of the organ is congested, dark, and rotten; but to the extent of one-half the size of the organ it is replaced by conical-shaped masses of a pale, soft, cheesy, and somewhat pultaceous substance, nearly resembling organised fibrine, but having a more granular appearance; one mass rather larger than a walnut, situated near the upper and anterior part of the organ, has become broken down, and has formed in it an abscess containing some thick greenish pus. Left kidney weighs six ounces; on its outer edge there is present a mass of the above described matter about the size of a canary's egg; and over it the capsule is firmly adherent, but in other parts of the organ the capsule is not adherent, and the kidney substance appears normal. Right kidney is normal. Brain: On cutting through the dura mater, a large quantity of effused serum escaped. The arachnoid and dura mater are much congested. The appearance of parts at the base is normal, as is the general surface of the organ. On examining the right fissure of Sylvius, two tumours, of a red colour, and of the size of large peas, were observed in the course of the middle cerebral artery, and these are found to consist of masses of dark and partly coagulated blood contained in the vessel and rendering it impervious, and this blood, on being examined under the microscope, is found to contain the beautiful characteristic rhombic crystals of hæmatoidin. Between the tumours the vessel is thickened and obliterated. Between the cerebrum and the cerebellum on the same side, a similar, but somewhat smaller tumour is found to exist on the posterior cerebral artery. Over the surface of cerebrum and cerebellum, generally between the hemispheres, and even between the convolutions, numerous but less well marked examples of plugging of the vessels occur, some being colourless or yellow, others answering to the above description. At the lower part of left hemisphere, in the immediate neighbourhood of an embolism, exists a cavity in the brain substance of the size of a small pea, and containing a thick greenish pus. In the right hemisphere, but more superficial, and surrounding a small embolism to the extent of about a square half inch, the brain substance is softened and of a greenish-yellow colour, evidently containing pus. The consistence of the brain substance differs much in different parts of the organs, but in many situations, especially in the right hemisphere, softening is well marked. No further traces of pus can be found in any part, though minute search is made.

The above case is peculiar (remarks Mr. Newman), inasmuch as it seems to indicate that in cases of embolism the effect upon the brain is only transient. This idea seems to

be proved in this by the alternate hemiplegic attacks and the varying state of the man's mental powers.

The attack came on very invidiously, and from the imperfect previous history, the diagnosis was difficult. The symptoms of the illness previous to admission seemed to point most distinctly to metallic poisoning, when taken in connection with the fact that the man had for eleven years worked in metallic vapours. On his admission, too, the opinion was held that there was softening of the brain going on, produced by the same cause.

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Medical Times and Gazette.

SATURDAY, JULY 9.

ELECTION OF FELLOWS AT THE COLLEGE OF PHYSICIANS.

The Fellows of the College of Physicians are pledged by a solemn promise "not to divulge any of the proceedings of the meeting held for the election of Fellows and Members of the College." The object of this restriction is clearly to secure freedom of discussion on the merits of the candidates and to prevent the injury which may be made to result to individuals unsuccessfully proposed for election. Under these circumstances we should have felt compelled to pass over in silence the proceedings of the meeting held at the College for the election of Fellows on the 25th ult., had not those proceedings been already made public, and that, too, in a somewhat incorrect and exaggerated form. On reference to the bye-laws of the College, it will be seen that all "members of at least four years' standing, who have distinguished themselves in the practice of Medicine, or in the pursuit of Medical or general science or literature," are eligible for the Fellowship. It is the duty of the Council of the College to select from the members qualified after the above fashion those whom they think fit to nominate, and to submit the same to the Fellows for election on June 25th every year. The Council consists of eighteen Fellows, of whom six at least must be annually changed; hence this body may be regarded as a committee deputed by, and representing the College at large for (amongst other) the very delicate and important duty to which we now refer.

There are between five and six hundred members, from amongst whom the Council have to select the most eligible—or at least those whom it deems the most eligible—candidates for the Fellowship. If they adopt a high standard as to the meaning of "distinction in the practice of Medicine, or in the pursuit of Medical or general science or literature," it may be, and is, said that they are too exclusive; if a low standard be taken and nominations be freely made, the degradation of the Fellowship is more than hinted at. Hitherto, however, no great difficulty has occurred. On the late occasion, the Council presented for election to the Fellowship the names of ten gentlemen, of whom seven were resident in London and three in the country. Of the gentlemen nominated on this list, it can only be said that each was most fully entitled to the distinction which had been offered to him. When the ballot was about to commence, a Fellow rose to object that the name (which he gave) of a member had been passed over; and he moved that the list be referred back to the Council for reconsideration. It was stated, by way of precedent, that this had been done on a former occasion. On the part of the Council, it was mentioned that the list had been prepared after the most careful and conscientious consideration, and that there was no probability of a better one being framed; that the precedent quoted had reference to the "year of grace," when an unusually large number of Fellows had been proposed, and that, by the bye-laws since then passed, the election must take place on a fixed day—viz., on June 25. Hereupon it was proposed by another Fellow to black-ball all the gentlemen nominated—a proposal which resulted in black-balling one-half of them.(a) We have thus traced these proceedings to a point which must receive most unqualified condemnation. An objection could not be maintained for a moment personally or Professionally against any one of the gentlemen nominated. The list was pronounced to be unexceptionable. If all had been blackballed there would have been something intelligible in the principles thus indicated, but to elect half and reject half implies, not a censure on the Council, but the unworthiness of some of the individuals—a result which was never intended, but which has nevertheless been arrived at. In this result consists what has been felt to be the cruelty of these inconsiderate proceedings, which have brought discredit on their authors, and which must do infinite injury to the College. The proper course to have followed would have been to have elected or to have rejected the whole list, and then to have taken the sense of the College on a distinct resolution of want of confidence in the Council. This has not been done—the innocent have been made sufferers, and a year must elapse before amends can be made to them. In the meantime these gentlemen must feel that they are but the victims of a hasty and inconsistent proceeding, and they may well believe that those who inflicted this injury on them will not escape unpunished; for who amongst them will not hear in moments of calm reflection his conscience whisper "Did you on that occasion do as you would be done by?"

If the College desires to maintain its character, means must be taken to prevent the possibility of the recurrence of such proceedings as these. We shall probably refer again to the subject, and how this may be accomplished.

"WHOM SHALL WE HANG?"

As the probabilities, or at least the possibilities, of our becoming involved in the Germano-Danish War increase, the thoughts of most Englishmen are directed more and more to the condition of our army; and, probably, most men reflect with pride and satisfaction on its high state of efficiency and preparedness, especially as compared with what it was when we last declared war against a European Power; and truly, considering the vast sum our army has cost us during the last few years, we have every right to expect to find in it a perfect instrument for offence or defence. But though, perhaps, the majority of men hold that it would be impossible for war ever to find us in a more complete and satisfactory state of readiness, there must be many thoughtful observers, even outside the services and the Medical Profession, who will be far from feeling this confident reliance; who will remember, with no little uneasiness, that one most important branch of the service is in a deplorably unsatisfactory state, and who will be haunted by the fear lest other parts of the army may, under their fair seeming, be rotten at the core. We trust, and believe, that this dread has no real foundation; but when we look at the Army Medical Department it is impossible to contemplate the likelihood of war without the gravest apprehensions; impossible to hope that any large force could be called into active service without a quick recurrence of old

(a) It is stated, as somewhat explanatory of this result, that this proceeding was quite unexpected, and that the College was a very small one

disasters—of the old story of "breaking down" and failures—and of the old cry, "Whom shall we hang?"—impossible to think without a shudder of a too possible repetition of the unnecessary miseries, distress, and losses of the Crimean war. Such thoughts amply justify our spending a few minutes in an inquiry into the causes of the present lamentable state of the Army Medical Service, and on the question who is responsible for it.

After the issue of the Royal Warrant of 1858, which granted very important concessions to Medical officers, the service became so popular that the authorities were able to raise the standard of examination and qualification. Candidates of high efficiency and ability eagerly sought to enter the service, and presented themselves in number far exceeding the commissions to be granted, so that the examination was truly "competitive;" men felt that success in it was a distinction and an honour, and that the service was one any man might be proud to belong to. What is the case now?

The provisions of the Warrant are "systematically disregarded;" the authorities deliberately nullify, ignore, or evade them, and dare persistently so to act that their Royal Mistress's name becomes, in the minds of men whom that Warrant enticed into the service, connected with evasions, breaches of faith, and dishonoured terms of engagement. Able and distinguished men resign the service in disgust; the "competitive examination" has become a mere farce, for educated members of our Profession cannot be induced to present themselves for commissions in numbers anything like equalling the vacancies, even though the standard of age, etc., has been again lowered; unprecedented discontent and dissatisfaction pervade the service; and, in direct opposition to the recommendations of the Select Committee of 1856, the authorities are driven, even in a time of peace, to call in the aid of civil Assistant-Surgeons. What degree of success has attended this last confession of mismanagement and failure, we do not know; but the authorities must be well aware that the one-sided—"heads we win, tails you lose"—kind of bargain offered can only be accepted by men utterly hopeless of success in private practice. A parliamentary return recently issued informs us that twenty-seven Assistant-Surgeons have resigned their commissions since January 1, 1862; and that there are vacancies now existing for twenty-six Regimental Surgeons and sixty-four Assistant-Surgeons.

What has led to so deplorable a state of things? One of the chief grievances of the Medical officers is the renewed and obstinate denial to them of real, substantive, military rank. The senseless regulations on this point show a degree of narrow-minded and petty professional prejudice and exclusiveness almost incredible in these days, savouring strongly of the kind of relation that existed between the knight and the leech in the middle ages, but strangely and contemptibly out of place in England in the nineteenth century. We can, indeed, imagine Lord Dundreary arriving, with much toil, at a hazy idea that "combatant" officers are your only real military men, and that "a combatant fellah is a fellah who fights, you know; but a Doctor fellah does not fight, so he can't be a military man; I hate a fellah to talk such nonsense." True, the Surgeon risks his life to save only, not to destroy; he may indeed get shot, or may go down with his ship while too busy with his wounded men to save himself; but then, as his lordship would, with admirable force, remark, "A fellah may get shot or dwowned anywhere. I knew a fellah who was shot in a battue, and Bwother Tham knew a fellah who was dwowned in a bath, and nobody called them military men, so that g-g-goes for nothing." But all authorities do not hold Lord Dundreary's views. The late Lord Dalhousie stated his opinion thus (see *Medical Times and Gazette* for March 6, 1858):—"But the most galling, the most unmeaning and purposeless regulation, by which a sense of inferiority is imposed upon Medical officers, is by the refusal to them of substantive rank. It is impossible to conceive how such a system as this can have been maintained so long on the strength of no better argument than 'it has been,' therefore 'it ought to be.' It is impossible to imagine what serious justification can be offered for a system which in respect of external position postpones service to inexperience, cunning to ignorance, age to youth," etc. The whole of the minute of Lord Dalhousie is most worthy of the attention of the "authorities;" and we confess we should have expected that the English army would be governed by intellects rather of the Dalhousie than of the Dundreary type. The Warrant of 1858 did vastly improve the position of the Medical officers, and did away with "the most galling, most unmeaning, and purposeless regulations," but the "military authorities" were never happy under the change, and in 1861 they effected their first serious tampering with the Warrant, and we will quote from the *Saturday Review* of that date an opinion on what the "authorities" were then doing:—"They lose no opportunity of making the position of Army Surgeons as degrading and their Profession as odious to them as official ingenuity can contrive;" if they continue to display such energy "in rendering the service unpopular, we shall have to content ourselves with such Medical skill as can be obtained from the style of men who have no constitutional objection to insult and humiliation. We are at liberty to choose between the gratification of the traditional punctilios of the Horse Guards and the health of the army; but it is necessary to remember that we cannot enjoy both luxuries at once." The state of the Army Medical Department which we have attempted to depict shows how prophetic the above quoted words were; and we will only illustrate and point our remarks on the dangers attending that state by a quotation from a speech of Lord Palmerston in 1857:—"So long as only the dregs of the young men adopting the Medical Profession were induced to enter the Medical department of the army so long would a wasteful prodigality be perpetuated, and so long would the lessons of the last war operate in vain." It would be waste of time to detail all the grievances of the Medical officers; our readers must be well acquainted with them; but we will turn for a few moments to the question, "Who is responsible?" Primarily and chiefly, undoubtedly, the "military authorities" *pur sang*,—the "combatant" rulers and administrators of the army. But are they alone answerable? Suppose that the Medical service "breaks down" in the field, that failure and disaster naturally follow on its weakness and inefficiency, is any one idiotic enough to suppose that the "military authorities" will consent to bear the blame for one moment, or even to share it? Who can doubt that they will instantly throw all responsibility, all blame, on the Army Medical Department and its Director-General? that he will be made the scapegoat and have to bear all the sins of the "system?" One of our contemporaries has lately pointed to the responsible position of the Director-General, and it is difficult to see how he can be held blameless for the condition of his department. What proof have we that the regulations and changes that have worked such evil and mischief have not his entire approval? At least he acquiesces in them. No sound of protest or expostulation has been heard from him. The lowered standard for Assistant-Surgeons and the pitiable demand for civil Acting-Assistant-Surgeons are promulgated under his signature and authority. All the tamperings with the Warrant of 1858, all the changes that have wrought such discontent and ruin, date since the death of the late Director-General.

Even if when disgrace and disaster come the Director-General can point to written protests and "memorials," will they avail him aught? Will not men reply, and reply with justice, "Why did you continue to hold your post if you thought the Service was being injured and destroyed? Why, when your remonstrances were disregarded, did you remain in office, content to sanction and carry out plans you knew to be fraught with mischief and injustice—injustice alike to the Medical officer and the soldier? You have enjoyed the dignity and emoluments of your position as head

of the Medical Department all this time; you cannot now shirk the responsibility of its mismanagement and incapacity."

The Director-General may be perfectly certain that if any public evil and disaster results to the army from the condition of the Medical Service he will be called sternly to account; and we earnestly beg him to consider how an inquiry would affect his honour and reputation. We believe that should the wrath and indignation of the public ever be again aroused by a recurrence of the Crimean miseries, failures, and disasters, it will not again be satisfied by an inquiry demonstrating the inefficiency and rottenness of a "system," but will insist on fixing on those who, with culpable incapacity, constructed and administered that system, and will rigorously exact their punishment.

THE WEEK.

CLAIMS OF ARMY SURGEONS.

WHILST the above article is passing through the press, we receive a letter to Earl de Grey and Ripon, entitled the "Case of the Medical Officers of the Army fairly Stated; by a Retired Deputy Inspector-General of Hospitals."(a) The whole matter at issue is most temperately and fully argued by one who in every respect shows himself a scholar and a gentleman. We will let the following passages speak for themselves :—

"One Medical officer from each regiment mounted the heights of the Alma with the attacking columns; an Assistant-Surgeon saved the life of the present Commander-in-Chief in the midst of the fight at Inkerman; and the Surgeons of the army took their tour of duty in the trenches before Sevastopol as regularly as their combatant brother-officers. The late Inspector-General of Hospitals, Dr. Macleod, when attending to the wounded in the trenches before Badajos, was for the moment blinded by his brother's brains, a captain in the regiment in which he served. It is well known all over India that at the battle of Corriegaum, one of the most brilliant feats of arms in the annals of British India, nearly all the artillery officers were killed, and at the most critical period of the action Assistant-Surgeon Wylie directed the fire of the guns against the enemy in such a manner as materially to contribute to the success of the day. For this he was in after years rewarded with the Companionship of the Bath, and to the day of his death was known in the Madras army, to which he belonged, as the 'Hero of Corriegaum.' Surgeon A. Home rescued the wounded under his charge at Lucknow from falling into the hands of the enemy, barricaded the houses into which he had them conveyed, defended the post for two days, and with his own hand killed many of the assailants. For this gallant act he was rewarded with the Victoria Cross. In the late operations on the frontier in India, Assistant-Surgeon Pile, on duty with a picket in an exposed position, when the combatant officer in command sought safety by deserting his post, remained with a gallant young ensign, and fell nobly doing his duty to the wounded around him. In a late dispatch from New Zealand, General Cameron mentions the gallant conduct of Assistant-Surgeon Temple in the discharge of his duty, in such terms that it is well known this Medical officer has been set down for the Victoria Cross. The number of Medical officers of both services who lost their lives during the Mutiny in Bengal, and the operations for its suppression, was greater in proportion than among any other class of officers in the service.

"My own experience in war, as compared with that of some of my old brother-officers of my own standing, has not been great; yet I have often been out at night on picket duty immediately in front of the enemy; I have landed more than once with troops under fire; I have served with the advanced guard under fire; the commanding officer of my regiment was killed within a few feet of me; the captain of the light company was slain while in the act of conversing with me; and a few minutes after, while attending to a wounded officer, a shot struck the parapet so closely above my head as to cover us both with the *débris* of the crushed bricks and mortar. The proportion of Medical officers at this day wearing the Victoria Cross is greater than among any other equal body of officers in Her Majesty's service."

(a) London: Griffin and Co., 10, Stationers'-hall-court.

THE ELECTION INTO THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

THE annual election of Fellows into the Council of the College took place on Thursday last, and caused, as was expected, considerable excitement, for which the Profession to a certain extent had been prepared by the active canvassing going on, not only by the candidates themselves, but through the influence of their friends. After all, there really is no harm done, no loss of personal or Professional dignity in one gentleman asking another for some recognition of his claims to obtain the object of his just and laudable ambition, whether it be for the Surgeoncy of a Hospital, for the Fellowship of the Royal Society, or a seat in the Council of the College of Surgeons. It is all very well to talk of the "disgraceful touting system" now introduced into these elections, but the charge comes with peculiar bad grace from *life* members of the Council. It is said that Professor Gulliver has been denounced for sending a copy of his manly letter to each of the Fellows, but we suspect that most gentlemen would have acted in the same manner. Only a few years ago a Vice-President of the College addressed himself by letter to the Fellows when a scheme was brewing to make him a victim to the machinations of a "John Hunter Club," but which the *Medical Times* happily frustrated, and that gentleman in a few days will be the senior Vice-President of that College from which it was attempted so unjustly to exclude him. The mode of conducting the election was a very simple affair. The President, Mr. Skey, and the Vice-Presidents, Messrs. Hodgson and Wormald, took their seats punctually at two o'clock, the other members of the Council joining the Fellows at large in the library. The President then shortly explained the objects of the meeting; and, in doing so, paid an eloquent and well-deserved tribute to the genius of his late colleague, Mr. Green, whose vacant chair they had met to fill up by the election of another Councillor. Mr. Skey then called on the Secretary to read the advertisements convening the meeting and those portions of the bye-laws relating to the election of Fellows into the Council. These matters having been duly performed, the President invited the Fellows to hand in their voting papers: these consisted of a slip of paper containing the name and address of the elector, and on another the names of the six candidates, with the pen drawn through those for whom the elector did not intend to vote. The business of the day then commenced, and it was five o'clock before the voting had finally closed. The President then stated that he should keep the ballotting box open ten minutes longer according to the bye-laws, which prescribed that after the last Fellow had voted ten minutes should elapse before taking the result of the poll. As it appeared that the last Fellow had really exercised the franchise, tellers were appointed, and the result duly noted; at the end of which the President declared the choice of the Fellows to have fallen on Messrs. Le Gros Clark, Hancock, and Curling, the numbers respectively polled by the candidates being—

106	George Gulliver	7	Plumpers.
139	Henry Hancock	11	,,
95	Thomas Turner	18	,,
63	Andrew Melville McWhinnie	4	,,
136	Thomas Blizard Curling	10	,,
147	Frederick Le Gros Clark	18	,,

Victrix causa Diis placuit, sed victa Catoni.

THE NEW WING OF THE LONDON HOSPITAL.

IN our news columns will be found an account of the *fête* with which the Committee of the London Hospital inaugurated the commencement of their new building. Everything went off well on the occasion. The Committee were honoured by the gracious presence and smiles of the Princess and the active co-operation of the Prince of Wales, who looked and acted his part in the ceremony with a simple and kindly dignity befitting the first gentleman of the land. A subscription

list which London only could have produced was announced, and certainly never was money subscribed for a better purpose. We hope that when the Alexandra wing is opened the Committee and the staff of the Hospital will show an adequate regard to the interests of Medicine in the changes which so large an increase in their field of operation must necessitate. A wing to accommodate 200 patients is in itself a new Hospital. It would be a narrow and mistaken course to attempt to throw the duties of the new wards on the present staff. The wide field of practice to be thus opened may well provide work for a large additional number of Physicians and Surgeons, and we trust that, by adopting a liberal policy in this respect, the present admirable and most efficient staff of the Hospital will attract to their ranks a body of colleagues who will ever maintain that high character which the fame of Blizard, Billing, Ramsbotham, and other not less illustrious men, has so long given to the teaching and practice of the London Hospital.

"PASSAGES FROM THE LIFE OF A PHILOSOPHER."

UNDER this title the celebrated Mr. Charles Babbage has published a sort of autobiography, which is one of the most mixed and incongruous books we ever dipped into. It deals with things the most sublime and the most ridiculous; shows qualities the most manly and the most childish, philosophy the most recondite seasoned with the silliest jokes, and the whole redolent of the most naked egotism. It is a very amusing book, and full of gossip and personal details of all the celebrated people of the last fifty years. A very instructive book, too; for never did any man so thoroughly turn himself inside out, and show his weaknesses more forcibly, to say nothing of the weaknesses of other people. There is one little bit which we quote, and commend to any of our brethren who sign certificates as matters of complaisance. Babbage is describing the boat excursions he used to enjoy at Cambridge. "The plan of our voyage was thus:—*I sent my servant to the Apothecary for a thing called an ægrotat*, which I understood, for I never saw one, meant a certificate that I was indisposed, and that it would be injurious to my health to attend chapel, or hall, or lectures. This was forwarded to the College authorities. I then directed my servant to order the cook to send me a large, well-seasoned meat pie," etc., etc., etc.

DOMESTIC VAPOUR BATHS.

IT is one of the reproaches commonly made against Practitioners of Medicine that they trust too much to drugs, and neglect other auxiliary measures, such as diet, baths, cold water, and the like. The reproach should rather be directed against our patients. The fact is that the rheumatic or other invalid finds it easy to swallow a dose of medicine once or twice a-day, but will not, unless he be absolutely obliged, undergo the restrictions on his diet, nor the regulation of his work and exercise, nor take the trouble to use the various kinds of baths which he would be compelled to do if he went to one of the so-called "health resorts," and gave himself up entirely to treatment. Pill-taking is easy; other plans of treatment require time and trouble; and there can be no greater benefactor to Physician and patient than he who makes the appliances of cure more simple and easy of use. Take vapour or hot-air baths, for example. We are much in the habit of recommending them in chronic rheumatism and similar cases. But how shall they be administered? To many patients it is perfectly impossible to go out to a Turkish or other sweating bath. They must have the bath at home in their own dressing-room before dinner; or in the case of most people, at bed-time. Then how shall the thing be done? One plan is to put a common spirit-lamp under a cane-bottomed chair, on which the patient sits loosely enveloped in blankets; or instead of the lamp, to use a large candle with multiple wicks, made by Price's Candle Company; or a dish containing a dozen wax ends. These modes of applying hot air are very useful, yet there is some nervousness about the vicinity of the flame to the patient. Steam may be used by means of a long tube, leading from a kettle boiling on the fireplace; but tubes are heavy, and not easy to manage without risk of an upset. Or it may be raised by putting under the patient's chair a vessel of boiling water, and putting into that one or more bricks, or fireclay balls, heated in a fire. But they take a long time to heat. Or an iron urn-heater may be used instead. But the iron parts with its heat so rapidly that there is a great explosion of steam, which soon dies off, instead of the gentle continuous bubbling of the heated bricks. Now, we have an invention of Messrs. Benham and Ford, of Chandos-street, a portable vapour bath of copper, very elegant in form, and looking like the alembic of a mediæval alchemist. It has a spirit lamp, a copper boiler within a jacket, and a cowl with a tube for delivering the vapour. It soon raises a very effective supply of steam; the only defect we find at present is in the mode of putting the lamp out; this might easily be effected by a ring like that attached to Bunsen's gas burner. The addition of handles like those of a tea urn might also be an improvement. For all this, it is a great improvement upon any that has gone before it, and will be a valuable addition to our stock of remedies for rheumatism.

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE XXI.—MARCH 19.

Anatomy of the Cynopithecini Continued.—A group of muscles not hitherto found in man or the anthropomorpha, but present in all the members of this family, even those in which the tail is rudimentary, are the numerous and complex caudal muscles; of these as many as eight distinct sets have been described by Burdach. The muscles of the limbs not found in man but present in the cynopithicini are, the levator claviculæ, often inserted into the extremity of the acromium; the dorso-epitrochlear; the scansorius, sometimes fused with the gluteus minimus; and the abductor ossis metatarsi quinti; there is another small muscle very general among these monkeys, arising from the fibula, between the peroneus longus and brevis, and ending in a slender tendon which passes behind the external malleolus, and is inserted into the extensor sheath of the fifth toe; this may be called "peroneus quinti digiti," in human anatomy it is sometimes represented by a slip from the tendon of the peroneus brevis passing along the fibular side of the little toe.

The muscles found in man, but absent in the cynopithecini, are the two which were also wanting in the preceding group—viz., the extensor primi internodii pollicis and the peroneus tertius. The muscles which differ essentially in their origin are the biceps femoris, which commonly has only its ischial head; the soleus, which arises by a narrow tendon from the fibula; the flexor brevis digitorum, which presents a remarkable deviation from the human type, arising partly from the tendon of the plantaris (where this passes over the pulley-like hinder extremity of the calcaneum, to end in the plantar fascia) and partly from the long flexor tendons, so that it has entirely lost its connexion with the os calcis. The transversus pedis is fairly developed, but generally arises by only two heads, from the distal ends of the second and third metatarsal bones. The interossei of the foot present remarkable indications of serial degradation, closely resembling those found in the carnivora and other inferior mammals. There are no proper dorsal interossei—that is, no penniform muscles arising from the contiguous sides of two bones, but every metatarsal has its pair of muscles, one arising from each of its sides, and inserted into the base of the first phalanx, of which they are true short flexors. Sesamoid bones are developed in their tendons. In addition to these, there are three extra muscles, arising from

fascia over the heads of the metatarsal bones in the middle of the foot, and passing obliquely to the second, fourth, and fifth digits. The muscles which differ from those of man in their insertion are as follows:—The extensor minimi digiti sends tendons to the fourth and fifth digits, the extensor indicis to the second and third, thus there is a complete double set of extensors: the insertion of the plantaris has been already mentioned; the distribution of the long flexors of the sole of the foot is subject to variation in a specimen of *Macacus rhesus* the flexor digitorum furnished part of the tendon for the hallux, the second and fourth toes and the whole of the fifth, while the flexor hallucis supplied the remainder of the three first-mentioned and the whole of the third. The flexor accessorius appears to be generally present. The extensor ossis metacarpi pollicis and the tibialis anticus offer the same sub-division met with in the preceding group. The interossei of the hand are arranged very closely on the human type, being divided into dorsal and palmar sets, and their tendinous ends are subdivided in the same manner into a division for the first, and another for the last phalanx of the digit, the muscles themselves are not double as in the gorilla. The long flexors of the fingers and thumb present a new and peculiar arrangement; there are two muscles in the forearm, arising in the situations of the flexor pollicis and the flexor profundus digitorum of the human hand, their tendons, though firmly connected together under the annular ligament, divide again, the former going to the second and part of the third digit, the latter giving the remainder of the tendon of the third, and all of those of the fourth and fifth digits. The slender tendon for the pollex comes off from the under surface of the tendon, not of the muscle corresponding to the flexor pollicis, but from the one placed on the ulnar side of the arm. The arrangement of both bones and muscles of the extremities in this group still preserve essentially the characters by which hand and foot were distinguished in man; and, while we see no tendency in the posterior extremity to take upon itself the fundamental structure of a hand, there are a few points (like that last mentioned) in which the terminal division of the anterior extremity presents something analogous to what has previously only been met with in the foot.

The body of the hyoid is hollow and arched, the lesser cornu well developed. A laryngeal sac exists in many species, but is not constant. It consists not of a development of the laryngeal ventricle, but is a production of the thyro-hyoid membrane, and communicates with the larynx by a single median aperture situated immediately under the epiglottis. The great majority of these monkeys have considerable pouches in their cheeks, with muscular walls, in which they can stow away for a time portions of their food. The stomach, usually, is simple, with the cardiac extremity dilated and globular, and the pyloric end produced. A very strange deviation from this form is found in the two highest genera, *Semnopithecus* and *Colobus*. In these, the stomach is divided into three compartments, of which the middle is sacculated; although this arrangement much resembles that of the ruminating animals, no such process has ever been observed to take place in these creatures. The cæcum is well developed, but devoid of a vermiform appendage. The liver shows a gradual downward progression of type, becoming more complex in its divisions. The innominate artery generally gives rise to both carotids, as well as the right subclavian, the left subclavian alone coming from the aorta. The lungs have commonly four lobes on the right side, and two on the left. The kidneys have only a single papilla.

The brain in all the members of this group exhibits a very uniform character. It is more flattened, and pointed and excavated below in the frontal region, than in the anthopomorphi, but otherwise the general form is not very different. The posterior lobes project beyond the cerebellum in all, though to a varying extent; they are shortest in the *Semnopitheci*, largest in the *Cynocephali* or baboons. The convolutions and fissures resemble a sketch-map of the human brain, but the external perpendicular fissure is strongly marked in all. The internal anatomy of the brain presents no essential change from that of the preceding groups; the lateral ventricle has its anterior, middle, and posterior cornu; and the hippocampus minor, corresponding with the great depth and complexity of the calcarian fissure, is relatively larger than in man.

Among the special characters of the reproductive organs, the very general, or perhaps universal presence of a bone in the penis may be noticed. This organ has also two special levator muscles on its dorsal surface arising from the front of the pubis. The vesiculæ seminales, prostate, and especially Cowper's glands, are well developed. The uterus has the same general form as among the higher apes. The clitoris is large. The cynopithecini are very generally, if not universally, liable to something comparable to the human menstrual process, chiefly shown in a periodic turgescence of the external organs. The placenta is, as originally found by Hunter, divided into two lobes, but its minute structure does not appear to differ from that of man. The law of growth in the young, as far as it has been observed, is the same as that which governs the anthopomorphic apes.

PARLIAMENTARY.

On Thursday, June 30, in the House of Commons, the Lunacy (Scotland) Bill was read a third time and passed.

On Friday, July 1, Mr. Blake rose to call the attention of the Chief Secretary for Ireland to the necessity which existed for amending the laws relating to the administration of lunatic asylums in Ireland, and for making better provision for the care of imbeciles confined in the Union workhouses; and to inquire whether he would introduce a bill next Session to remedy the defects complained of. At present, he said, the Irish lunatic asylums were under the control of inspectors, but a Royal Commission had recommended that they should be placed under the superintendence of a central board, and he hoped that recommendation would be adopted. A change in the mode of appointing the officers of lunatic asylums was very desirable; and the governors of asylums ought to be empowered to send away strange lunatics to their own districts, so as to relieve the ratepayers of particular towns of an unfair burden. A central board should also have the power of fixing on a standard for the dietary, and of establishing uniform regulations for the moral treatment of lunatics. Care should likewise be taken that the officers of those institutions were properly trained for their duties, and in all cases there ought to be a chaplain attached to them. It was a great anomaly that while the pauper was in his right mind he was supported out of the poor-rates, to which the landlord contributed, but if he became insane the charge immediately fell on the occupier. Another suggestion he had to make was the removnl of the non-attending governors of asylums. His notice referred to another unfortunate class, the idiots of Ireland, for whom at present no provision existed. Much had been done for the benefit of that class in other countries, and there was a valuable institution for them at Earlswood, near London. He would recommend the Chief Secretary for Ireland to go and satisfy himself by a visit to Earlswood that these unfortunate persons were not incapable of some moral and intellectual improvement. In conclusion, the hon. member said he hoped to receive an assurance from the Chief Secretary for Ireland that he would take the initiative in introducing a measure of legislative reform in the interest of these unhappy classes.

Mr. Bagwell doubted the expediency of giving the appointment of officers to the governors of asylums, as owing to the violence of party feeling in Ireland they could not be sure that in every case the best men would be employed. He was not fond of central boards, and any change in the direction of striking off governors who did not attend ought to be made very carefully, as the rate-payers of outlying districts were not the less entitled to representation. He attached the greatest importance to the training of the resident Physician—(hear, hear)—and believed that in point of order, regularity, humanity towards the patients, and proportion of cures effected, the Irish lunatic asylums were quite equal to others in any part of the world.

Sir R. Peel bore testimony to the zeal and humane spirit which had actuated his hon. friend in bringing the matter before the House. The fact, however, that this subject had not been lost sight of was proved by the circumstance that

since 1821 fifteen separate acts of Parliament had been passed on this question. He quite concurred with the hon. member for Clonmel in thinking that the resident Physicians should be educated with a more especial eye to the duties they had to perform; but even in the present day, with the aid of the consulting Physicians, they were able to bestow more pains upon the inmates than was formerly the case. (Hear, hear.) Not having been able to catch as accurately as he could desire the observations which had fallen from the hon. member for Waterford, the written outline of the points in which he felt interested, furnished by his hon. friend, would enable him to deal in detail with those various matters. As regarded the appointment of a central board, his idea was that the local authorities, with the supervision of the central government, ought to have the main direction of the institution. Dr. Nugent and Dr. Hatchell, the present inspectors of lunatic asylums, performed their duties to the satisfaction of the public, and he was always anxious that the poor inmates should be treated with every consideration. Under the existing rules and regulations, the Lord-Lieutenant had power to direct a special inquiry, and only recently a case occurred at Clonmel which Dr. Hatchell was sent down to investigate.

Mr. Blake said what he contemplated was the appointment of a special inspector, distinct from the regular officials.

Sir R. Peel went on to say he did not think the division of Ireland into districts like those rendered compulsory by the Prisons Act would be advisable in the case of lunatic asylums. It was important that it should not be known beforehand what inspector was to hold the inquiry. (Hear, hear.) With regard to appointments, it was proposed in 1859 by the Ministry of that day to vest these in the governors, but the measure was strongly opposed by Liberal members, and the present arrangement, which gave to each of the political parties in turn a share of the patronage, was, he thought, preferable. There were 16,000 of these poor creatures altogether in district lunatic asylums, poor-houses, gaols, and private asylums. A great many boards were taking steps for affording recreation and amusement to these poor patients. It was also of great importance that chaplains should be provided for these institutions. That subject had occupied the attention of successive lord-lieutenants. The Earl of Clarendon, Earl of Eglinton, Earl St. Germains, and the present Lord-Lieutenant, agreed that every lunatic asylum ought to have a chaplain attached to it. The Belfast Asylum was now the only one without a chaplain. Representations had been made to the board of the asylum that the patients ought to have the advantages of devotional services, but the board had hitherto resisted these appeals. At Londonderry, after holding out for a long time, the board agreed to make the trial. They had since reported that the effect of the ministrations of the chaplain upon the minds of the poor patients was most remarkable. It was thought that religious controversies might arise, but Roman Catholic, Presbyterian, and Episcopalian ministers attended at different hours, and the proceedings were conducted with perfect harmony. The majority of the cases in these asylums were chronic, and the patients were collected and rational, except in regard to the particular delusion in which their insanity was manifested. In the report presented to the Lord Chancellor by the Commissioners of Lunacy in England, of whom Lord Shaftesbury was chairman, it was stated that the patients looked forward with pleasure to the performance of Divine service, and regarded their exclusion from it as a privation. They added that the prayers of the Church exercised a soothing influence even upon insane hearers. A great deal had been done of late to promote the cure of this unhappy class of persons. There were at present seventeen lunatic asylums in active operation. Six other lunatic asylums were now being built, so that the complaints that these patients were placed in gaols would soon be obviated. When these six additional lunatic asylums were opened, 235 of the 389 insane persons now confined in gaols would be removed to them, leaving the balance in the Dublin district. He had been in communication with the grand juries, and something would, he hoped, be done to relieve the Richmond Asylum from the pressure that fell upon it from the Dublin district. The imbeciles confined in the union workhouses in Ireland were not less than 2,400, two-thirds of whom were women. They were for the most part in a state of harmless imbecility, and it would be better to leave them there. The boards of guardians were giving them an increased dietary, and it was not desirable to establish large asylums for the reception of these hopeless idiots. The cost of a patient in a lunatic asylum averaged £20, while the cost of an insane pauper in a union workhouse was only £10. To transfer these harmless imbeciles from the workhouse to the lunatic asylum would, therefore, be attended by great expense, without any corresponding good. He trusted that after this explanation the hon. gentleman would not press the subject any further.

The Factory Acts Extension Bill was read a third time and passed.

On July 4, in answer to a question by Mr. Leslie as to the truth of the account given by the *Times'* correspondent of the sanitary condition of the great gaol at Calcutta, Sir C. Wood said he had received no information on the subject, and was, therefore, unable to confirm or contradict the statement.

On Tuesday, July 5, in the House of Lords, the Superannuation (Union Officers) Bill was read a third time and passed.

On Wednesday, July 6, on the order for going into committee upon the Punishment of Rape Bill, moved by Sir S. Northcote,

Sir C. O'Loghlen moved to defer the Committee for three months, assigning reasons why he considered an alteration of the existing law unnecessary, and his objections to the punishment proposed by the bill. No case had been made out, he said, for this change in the criminal law and for a retrograde policy in the mode of punishment.

This amendment was seconded by Mr. Roebuck, who denounced the punishment of flogging, as tending to barbarise society.

After considerable discussion, the House divided, when the amendment was carried by eighty-four to seventy-eight; so the bill is lost.

FROM ABROAD.—SUTURE OF THE MEDIAN NERVE—CONGRESS CONCERNING THE WOUNDED IN BATTLE.

M. Laugier read an interesting communication to the Academy of Sciences, giving an account of the suture of the median nerve which he executed on the 13th June. The patient was brought to the Hôtel-Dieu for a severe wound of the left forearm, the median nerve having been, among other parts, completely divided. The radial and ulnar arteries were taken up, and the hæmorrhage was arrested, but all parts supplied by the median nerve had lost their sensibility. Its lower end, about two and a-half centimetres in length, was found free and floating in the wound above the annular ligament, but its upper end not being discoverable, it was determined to seek for it by dissection. The patient was put under chloroform, and an incision was carried from the middle of the wound along the forearm, so as to expose the median nerve. A silken suture was passed through the nerve at twelve millimeters above its upper end, and then through its lower end, the two cut surfaces of the nerve being then brought into contact without the exertion of any violence, one end of the ligature being cut off, and the other left hanging from the angle of the wound. No pain of a remarkable character or accident referable to the suture of the nerve ensued. The traumatic fever and inflammatory condition of the wound and arm were not greater than might be expected from such an injury. Even on the evening of the day of the operation, the sensibility had become somewhat re-established, and next day it was so in a remarkable degree; and the opposing movement of the thumb, which had become impossible after the accident, could now be effected with ease. The report only comes down to a week after the operation, when the improvement obtained continued to be maintained, although the acuteness of the sensation was not yet quite restored. M. Laugier attaches some importance to his mode of performing the suture by means of a straight staphyloraphy needle, the edges of which, kept in a direction parallel with that of the nerve tubes, disturbed these as little as possible. Several of the surrounding tubes, in fact, suffered no violence from the operation thus performed. The suture, too, was sufficiently removed from the point of section of the nerve not to complicate this by the presence of a foreign body. M. Nélaton communicated to the author a somewhat similar case which had occurred in his own practice. After the removal of a neuroma from the median nerve at the middle part of the

arm, and the excision of the nerve to about the extent of two centimetres, he united the two ends by means of a suture, and at the end of forty-three hours return of sensibility and motion commenced, no remarkable pain or any consecutive ill effect having occurred, although a metallic suture was employed. M. Laugier asks whether this practice does not deserve consideration, as being preferable to the ordinary one of merely favouring the reunion of the ends of divided nerves by mere position, a greater or less number of venous tubules being reproduced amidst the cicatricial tissue. His general conclusions are,—1. After the suture of a divided nerve, the sensibility and movements of the parts to which it is distributed may become re-established in a very notable degree in the course of a few hours. 2. This re-establishment is rapidly progressive. 3. It is successive,—that is, tactile sensation and movements are obtained prior to certain sensations, such as that of pain and temperature. 4. The suture does not give rise, at all events when performed as indicated above, to special suffering nor necessarily to severe nervous accidents —a fact, indeed, already proved by the accidental ligature of nerves with arteries. 5. We may admit into Surgical practice the ligature of nerves of a notable volume, the division of which interferes with the sensibility and movements of parts of more or less extent.

We gave an account last year (*Medical Times*, vol. ii., pp. 442 and 519) of the meeting of an interesting Congress at Geneva, having for its object the supplying, through international arrangements, greater security and more efficient aid for the wounded and sick during the time of war. This Congress, called together at the instigation of M. Dunant, who had become penetrated with the horrors of the battle-field, as witnessed at Solferino, met with great encouragement from the chief Governments,—our own among the rest—who sent persons of importance as delegates. Certain resolutions were passed, having the mitigation of the horrors of war as their object, and a Genevese committee was appointed to communicate with the various Governments, to ascertain to what extent they felt disposed to co-operate in carrying these out. Fifteen of these having sent favourable replies, the committee believed that the time had arrived when an official Congress should be assembled, in order to agree upon international obligations which should be binding on the contracting parties. To call this together, however, the committee was, of course, incompetent, and it besought the Swiss Government to take upon itself the initiative of issuing invitations to the various Sovereigns to concert among themselves the stipulations that should be introduced into public law, as regards the rights of the wounded and those whose duty it is to attend upon them. The Federal Council has complied with this request, and under its auspices a Congress is about to assemble.

Royal Institution of Great Britain.—The general monthly meeting was held on Monday, July 4—William Pole, Esq., M.A., F.R.S., Treasurer and Vice-President, in the chair. General Sir Edward Lugard, K.C.B., and John Ruskin, Esq., were elected Members of the Royal Institution. The presents received since the last meeting were laid on the table, and the thanks of the Members returned for the same.

Scarlet Fever Riot at Tunbridge Wells.—On Saturday night last a riot of curious origin took place at Tunbridge Wells. A few weeks ago it was rumoured that an epidemic in the shape of typhus and scarlet fever had visited the place, and as a consequence a large number of visitors left. The report appears to have given the lodging-house keepers great annoyance, and as a Mr. Webber—the same person, we are informed, who was the defendant in Wells *v.* Webber—was identified with it, a large mob of about 1000 persons assembled in front of his house on the evening in question, and having burnt him in effigy, commenced to smash his plate-glass windows. The small police force was quite powerless, and the crowd was only dispersed at a late hour by a heavy fall of rain. On Sunday the excitement in the town continued, and another riot was expected. It is said that the sanitary inspector sent down by Sir G. Grey, on Mr. Webber's application, could find nothing to justify the reports respecting the unhealthy condition of the town.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF BIRMINGHAM.

THE GENERAL HOSPITAL.

It is difficult to write an article on the General Hospital of Birmingham at this moment without entering on debateable ground, or without taking part in a controversy from which I feel the historian who would be quite impartial should keep himself scrupulously free. The Medical visitor entering Birmingham at the present time hears of little else than the great question of the management of the Medical charities of the town, of the abuse of such charities, and of the means of correction. These subjects, brought prominently forward for discussion some months ago by one of the most active members of the Medical Profession, and one of the most active members of the legal profession, have set the whole of the town in a political-philanthropical ferment, the like of which has, perhaps, never been experienced in any town in the kingdom or on any occasion. Naturally, the General Hospital, as the oldest and most celebrated, has come in for the most serious criticism. On the one hand it has been charged with various offences, and stamped, with a talent and force not easily described, as the centre of the most serious abuses; and on the other hand, it has been defended and held in position with a tenacity and firmness equally remarkable. Some months since, the external pressure brought to bear on the managers of the General Hospital led to a rigid, and by no means short, inquiry. A committee was appointed to investigate and report, the members of which have sat from time to time with the punctuality and formality of a Committee of the House of Commons. Witnesses, including, I believe, all the officials of the Hospital, Medical and general, have been called up for examination. Questions by the thousand have been formally put and answered, and, to complete the process, two blue books have been printed, embodying all the evidence, with a report summarising the whole and expressing the opinions of the Committee. The cost of the inquiry cannot have been less than £600 or £700. I was told by some who ought to know correctly that when all was concluded £1000 would be nearer the mark. The course which the inquiry seems to have taken has turned to matters relating to the economy of Hospital management rather than to the sanitary condition of the Institution or the results of treatment. It is true that various questions have been put and answered relative to the cubic space allowed to each patient, to the mortality after various operations, such as lithotomy and to other kindred subjects; but these are less prominent topics in comparison with those bearing on Hospital expenditure, the average cost of each patient—in-patients and out-patients—the length of attendance, the classes of persons permitted to share in the benefits of the charity, and the force of the Medical staff as compared with the work to be performed by the staff. In plain terms, the controversy is one between the officers, *de facto*, of the Institution and a lay-committee; between the Medical element inside and a section of the Medical element outside the Hospital; a conservative resistance to what is called a reforming progress. I shall have occasion in the sequel to refer to this subject again; the history of the General Hospital lies before us first for description.

The man who founded the General Hospital was one Dr. Ash, a Physician of great influence and practice in the latter half of last century. I shall say more of him when the Medical Biography of Birmingham is under review; but as connected with his labours and the appreciation in which they have been held, I may state that soon after he had achieved his object and the Hospital was quite ready for it, the great painter, Sir Joshua Reynolds, was employed to paint a portrait of Dr. Ash for the board-room. Sir Joshua's fee for such a work was three hundred guineas; but in consideration of the object he was content to take one hundred and fifty. Amongst his marvellous productions of portrait life this is considered to be his second-best; and at the present hour the picture produced for one hundred and fifty guineas is worth not less than four thousand. Let no Medical man who has any love for art ever leave Birmingham without seeing this gem,—or, I had almost said, without seeing Dr. Ash; for there he sits in Oxford robe, knee breeches, wig, and flowing necktie, looking

at you as though he would next minute put out his hand from the canvas and bid you welcome. A thorough specimen of an English gentleman, Dr. Ash, with becoming gravity and yet a twinkle of humour; with a look indicating no great depth of learning, and yet the bearing of a scholar; and with an expression that says as clearly as could be spoken that he had a keen knowledge of the world and of his race, and a determination that knew of no control.

Dr. Ash made his first announcement of an intention to found a general Hospital by means of an advertisement which appeared in the *Birmingham Journal* "on Monday, November ye 4th, 1765." It set out that a general Hospital for the relief of the sick and lame situated near the town of Birmingham would, it was presumed, be greatly beneficial to the populous country around it as well as to that place; and it summoned a meeting of the nobility and gentry, to meet at the Swan Inn on the 21st instant, to consider the proper steps to be taken to render effectual so useful an undertaking.

The meeting was held, Dr. Ash was there, the foundation was agreed to, and even the rules of the embryo institution, which the doctor had prepared, were laid before the meeting, and were approved of. On December the 24th a second meeting was convened, and the work went on—not, however, without opposition.

The site of the Hospital—the present site—was selected by Dr. Ash, and the building soon afterwards commenced; but dissensions arose, and lukewarmness, and ten years passed away without the completion of the project.

In 1774-5 the movement is said to have received an impulse owing to the circumstance that a new theatre was erected while the Hospital remained in a half-finished state. The fact gave occasion to a Mr. Mark Willis, a clerk in a mercantile house, to write what has been called a poem, in which the Theatre and the Hospital sustain a dialogue; the theatre, or, as it is called, the playhouse, gets the worst of the argument, and the people of Birmingham are taught a lesson as to their duties. It is held that the production of this dialogue whipped into energy the dormant energies of the townspeople, and that as a result the Hospital was soon finished and inhabited. It is scarcely possible to accept as true any so absurd a statement; but if it were true, it tells little for the genius of Birmingham that it should have been roused into activity by any such an effort. A more miserable specimen of stunted poetry, a more bald or puerile argument, was never surely penned. It would be absurd to dwell upon it, and it is sufficient to say that in 1776 a new attempt was made to complete the undertaking; that in the midst of much difficulty the scheme was carried out; that on September 13, 1779, the Medical staff was appointed, and that the Hospital soon afterwards was opened without ceremony, but with accommodation for forty patients. One other matter deserves notice,—a year before the Birmingham Hospital was completed a musical performance was conducted in aid in part of the funds of the charity. The sum of £800 was raised, of which the Hospital took its share. In itself this is nothing, but the fact is interesting because from this event the famous and now world-wide-known musical festivals of Birmingham take their origin. In 1766, the idea of a small festival had been raised, and in 1768 a musical performance was held; but *the* festival was in 1778, and from it all the others date. In a brief period the festivals in aid of the Hospital were recognised triennal institutions, and so popular have they become that scarcely a great singer or musician has visited England or been bred in England who has not by his talents benefited this fortunate charity. Music, indeed, has in this instance come directly to the aid of her sister Medicine, and Apollo, liking his temple in the iron city, has blended both his arts for the relief of humanity. In one of these grand efforts the distinguished Mendelssohn himself conducted the oratorio of "Elijah." Twenty-eight festivals have been held up to this time, and a sum of money equal to £80,0 0 has been realised for the Hospital by festival profits alone. The great organ in the Town Hall is also the property of the same institution, bought with festival money.

The history of the General Hospital at Birmingham could not be complete unless reference were made to the festivals, and many curious facts could be added to what is given above; but these must be left, and we must pass to subjects of a more practical nature. Suffice it to add that since its opening the Institution has been greatly enlarged as demands have been made upon it; that a new wing for out-patients has been added to it; and that again, owing to increase of population, the pressure on its space is unduly tried.

ADMINISTRATION.

The Hospital is built after the style of the many similar institutions raised between 1760 and 1780. It is constructed of brick, with a plain front. The entrance hall is spacious and handsome—the best, in fact, that I have seen in any Infirmary.

Number of Patients Treated.

The number of patients who have sought relief at the Charity has been gradually increasing for many years past. In 1860 the patients admitted into the house amounted to 2850. In 1863 there were admitted by ticket 1354, and without tickets, as accidents or urgent Surgical cases, 1310, making a total of 2664. In the out-patient department there were admitted by ticket 12,988, and without ticket, in accidents and urgent Surgical cases, 13,341; while no less than 3500 persons were received for tooth extraction. These give a total of out-patients amounting to 29,829, and a total of patients treated at the Hospital of 32,493. Since the first opening of the Hospital the number of in-patients admitted has been 112,580, and of out-patients 457,273, giving a total of 569,853.

Rules for Admission of Patients.

Subscribers of one guinea and upwards have the privilege of recommending in and out-patients according to the following scale, viz.:—One in-patient ticket for each sum of two pounds, and one out-patient ticket for each sum of two shillings subscribed, thus—

	£ s.		In-patients.		Out-patients.
A Subscriber of	1 1	to recommend	0	....	10
,,	1 5	,,	0	....	12
,,	1 10	,,	0	....	15
,,	2 2	,,	1	....	1
,,	2 10	,,	1	....	5
,,	3 3	,,	1	....	11
,,	4 4	,,	2	....	2
,,	5 5	,,	2	....	12
,,	6 6	,,	3	....	3
,,	7 7	,,	3	....	13
,,	8 8	,,	4	....	4
,,	10 10	,,	5	....	5

And in the same proportion for all sums subscribed.

Each subscriber has the privilege of receiving twenty out-patient tickets in exchange for an in-patient ticket upon application to the Secretary.

Parishes or Poor-law Unions are permitted to send patients into the Hospital upon payment of two guineas for each patient, such payment being made at the time of the admission of the patient; but no such patient remains in the Hospital longer than six weeks upon one recommendation; and the officers of such parish or union must engage to defray the expenses of burying such patients in case of death, or to remove them when required.

Every clergyman or Dissenting minister who permits collections to be made in his church or chapel for the benefit of the Hospital is entitled to the following number of tickets during the current year, viz.:—

Contributed or collected.		In-patient Tickets.		Out-patient Tickets.
For every £5	.. ..	1	..	or 12
,, 10	.. ..	2	..	,, 24
,, 15	.. ..	3	..	,, 36
,, 20	.. ..	4	..	,, 48
,, 25	.. ..	5	..	,, 60
,, 30	.. ..	6	..	,, 72
,, 35	.. ..	7	..	,, 84
,, 40	.. ..	8	..	,, 96
,, 45	.. ..	9	..	,, 108
,, 50	.. ..	10	..	,, 120

All in- and out-patient tickets issued by the Hospital entitle the patient to admission for six weeks, should the case require it, and must be given only on the regular printed forms supplied by the Secretary.

Income of Hospital and Cost of Patients.

The income of the Hospital is derived from subscriptions, dividends on stock, ground rents, donations, collections, legacies, and what are called contingencies. In the year 1863 the ordinary receipts (income) amounted to £8940, the total expenditure being £10,511. Of the receipts it may be stated that £252 were contributed by workpeople.

The cost of each patient in the Hospital has recently been calculated with much care; and as the subject of cost has given rise to much controversy, I append the following facts from the auditors' report for the year ending June, 1863.

A Table of the Cost of Patients at the General Hospital, Birmingham.

In-Patients.

	£	s.	d.
Average cost per individual in-patient, including all expenses of out-patients	4	11	3
Average cost per individual in-patient with deduction for cost of out-patients in Surgery and Dispensary departments	3	12	8
Average cost per in-patient, including renewed tickets, but exclusive of cost of Surgery and Dispensary expenses of out-patients	3	2	5¼
Average cost per in-patient, including renewed tickets, and deducting the cost of staff expenses incurred in relation to the out-patient department	2	12	10

Out-Patients.

Average cost per out-patient for Surgery and Dispensary expenses only	0	1	7¾
Average cost per out-patient, including also proportion of staff expenses incurred in relation to the out-patient department	0	2	7½

Cost per Bed Occupied (including Cost of Out-Patients).

Average cost per bed occupied, including an extraordinary expenditure of £681	53	18	0
Average cost per bed occupied, exclusive of extraordinary expenditure	50	8	2
Average cost per bed occupied, exclusive of cost of patients supplied with instrumental supports, etc., amounting to £163, and of cost of patients sent to convalescent institutions, amounting to £119	47	8	4

Cost of Household.

Average cost per officer and servant in housekeeping expenses per week during the year 1863	0	9	7½

The daily average of patients in the house was 200, and the number of days during which each patient was under treatment was 27.

The Medical Staff.

Physicians—Dr. James Johnstone, Dr. George Fabian Evans, Dr. Bell Fletcher, Dr. James Russell. *Surgeons*—Mr. Dickinson Webster Crompton, Mr. Alfred Baker, Mr. Oliver Pemberton, Mr. David Bolton. *Resident Medical Officer and Tutor*—Dr. Wm. Anderson. *Resident Surgical Officer*—Mr. Charles J. Bracey, M.B.

PRACTICE OF THE HOSPITAL.

Medical Practice of the Hospital.

In the Medical practice, rheumatism, acute and chronic, diseases of the heart, bronchitis, albuminuria, epilepsy, chorea, phthisis, psoriasis, and eczema are very common. Cases of lead poisoning are frequent: they come most frequently from men who work at the manufacture of brass taps, in which lead is largely used; they also come from those who are employed in glass cutting, glass blowing, in polishing with putty powder (a powder consisting of the oxides of tin and lead) in the process of enamelling iron vessels, and in boys employed at soldering furnaces, etc. With the symptoms of lead poisoning rheumatic and gouty symptoms often occur at the same time.

Disease from Parasites.

The most interesting facts observed, perhaps, have reference to the parasitic affections. In Birmingham, as in Wolverhampton, the staple animal food of the poor is pork; and here, again, cases in which parasites are present are seen daily. Tapeworms are most frequent, next the lumbrici, and in children ascarides. There seems to exist no possible doubt with regard, at all events to tapeworm, that the eating of badly-cooked pork is the source of the evil. In connection with the tænia and lumbrici it may be mentioned that symptoms of an epileptiform character seem often to depend upon the presence of these parasites; and in not a few cases what has appeared to be confirmed epilepsy has subsided, on removal of the parasite by appropriate treatment. A singular case occurred about a year since, in which a lumbricus caused death. The patient, a young man, had been operated upon by Mr. Pemberton for removal of the knee-joint by excision. The man was suddenly seized, soon after the operation, with vomiting of blood in large quantities, from which he died. After death there was found to be perforation of the duodenum by a lumbricus; the lumbricus was found half through the opening. In the intestine there were nine other lumbrici, and the intestines were full of blood.

Some remarkable cases of hydatid disease of the brain have also been met with. Four such cases have been recognised during the past twelve months, and Dr. Anderson has been kind enough to place the notes of them before me.

The first case was under the care of Dr. Fletcher. It occurred in a young man, aged 17 years. He was taken ill in July, 1863. He suffered from chorea and intermittent epileptic attacks. There was a family history of rheumatism, but the chorea was so vehement, and the emaciation consequent was so rapid that organic disease of the brain was suspected. He died from emaciation and exhaustion. At the post-mortem examination a small round cystic tumour of the size of a large pea was found just above the right corpus striatum. The hooklets of the echinococcus hominis were discovered in this cyst by means of the microscope. The mitral valve was covered with fresh vegetations. The other organs were sound.

In the second case, also under the care of Dr. Fletcher, the patient was aged 20. He was a strong, healthy-looking man, but with large staring eyes, an anxious expression, and an immense thyroid gland. He was suffering on admission to the Hospital on December 11, 1863, from constant headache, which had been present for four years, and eight months before admission he had had an attack of hemiplegia, which deprived him of the use of his right side and of his speech for a fortnight. He had a similar attack to that last described three months later. His constant idea was that he had "something creeping in his head." About six months before admission he became suddenly very intemperate, drinking, eating, and smoking to excess. The eyesight and the memory began to fail, he had tremors of the muscles of the arms, and the pain in the head was so severe that his cries alarmed the neighbours. No treatment had any effect in allaying the pain, and he died suddenly of general paralysis on January 12, 1864. The post-mortem revealed a large hydatid cyst, containing numerous small cysts, at the base of the brain, and another just below the left lateral ventricle and in the fissure between the left middle and posterior lobes of the cerebrum. The cysts contained the hooklets of the echinococcus in abundance. The thyroid gland was not cystic.

In the third case, a woman aged 23, who was under the care of Dr. Russell, came to the Hospital nine months ago, complaining of intense headache occurring at intervals, and lasting for two or three days at a time: at these periods she vomited. The eyes were prominent and staring, and ached when the pain was severe in the head; she always leaned her head forward, finding the only relief in that position. She constantly had giddiness on making any exertion, and was positively afraid to stoop, as immediately after so doing she was faint and speechless. She had suffered twice from epileptic attacks, and was found dead in bed at last, apparently from an epileptic seizure.

At the post-mortem a hydatid cyst was found in the anterior part of the left anterior cerebral lobe. The hooklets of the echinococcus were discovered by the microscope.

The last case was in a man aged 40, who was admitted, under the care of Dr. Johnstone, on March 19, 1865, with symptoms of epilepsy, from which he had laboured three or four years. He was very excitable, and suffered severely from headache. The last week or two before his death, on rising from the sitting posture, he invariably staggered and fell to the ground unless he were supported. He also dragged his legs in walking. The pain in the head was excruciating for several days before his death, and his eyes were prominent and staring. He died suddenly, four days after admission, from general paralysis.

At the post-mortem examination there was found a large cyst in the centre of the cerebellum, which dilated both lobes to the extremest degree. The cyst contained numerous small cysts, in which, by the microscope, the hooklets of the echinococcus were detected in quantity.

Attempts were made by Dr. Anderson to ascertain if any relationship could be traced between the consumption of uncooked food in these cases and the occurrence of the symptoms. It was found that the patients had all been pork eaters, but no absolute evidence could be obtained proving that they had eaten uncooked or partially cooked food.

In addition to the above cases I may mention a case under the care of Dr. Fletcher, in which a large fluctuating tumour of doubtful nature protruded through the bones of the skull. This tumour was punctured, and a number of cysts and fluid escaped, with immediate relief to the patient, who had previously suffered from alarming cerebral symptoms. The

patient some time afterwards died of small-pox, and the specimens of the diseased structures of the head were removed, and are now preserved in the museum of the Sydenham College.

Unique Case of Perforation of the Aorta.

A remarkable case of perforation of the aorta through the duodenum by a common sewing needle, with a small, false aneurism intervening, occurred under the care of Dr. Fletcher, in June, 1863.

The patient, a very strong, muscular lad, aged 16, was admitted on June 4, in a state of the utmost exhaustion from large and repeated losses of blood, by vomiting and by stool. He was deathly pale and anæmic, fainted on making the slightest exertion, and complained of pain in the back and stomach, and deep-seated tenderness on pressure over the abdomen. He died by syncope fifteen days after admission, having repeatedly lost immense quantities of blood by stool during the time of his stay in the Hospital. At the post-mortem examination all the organs of the body were found healthy. The intestines were full of casts of coagulated blood, showing accurate moulds of the internal surface of their walls, and a common sewing needle (much eroded) was found perforating the aorta through the duodenum, a small false aneurism intervening. On inquiry, his friends related that several years ago a needle, with which he had been mending his clothes, when engaged in herding sheep, stuck in his throat, and that he had pushed it down, not being able to extract it.

The local occupations of Birmingham necessarily give rise to special symptoms, and a very fruitful field of inquiry is open in this direction for some industrious Medical observer. Dr. Anderson has noticed that brass-founders are particularly subject to attacks of bronchitis, arising apparently from their inhaling the fumes of oxide of zinc which escape in the process of "brass mixing." It is also notorious that a consumption of the lungs is induced by the process of grinding pearl buttons and grinding of mother-of-pearl for the *papier-mache* manufacture.

Points of Treatment.

The alkaline treatment in rheumatism has a firm hold here, and is believed to be very successful. Bromide of potassium has been used in the treatment of epilepsy with results, in some cases, that are very satisfactory, and in the hands of Dr. Russell the disease (epilepsy) is undergoing careful observation.

In the treatment of tapeworm and lumbricus, kamela is often used as an anthelmintic. It is given in doses of a drachm, and is found effectual. It acts less violently than male fern. For lumbrici, santonine has been employed with remarkable success, and Dr. Anderson has recently written a very useful and practical paper on this subject. The dose of santonine administered to grown-up persons is from two to six grains in powder. Dr. Fleming's formula is considered best. It is as follows :—

℞ Santonini gr. ii. *ad* vi. ; Sacchari Lactis gr. v. M. Fiat pulvis.

This powder is taken at bedtime, after a fast of a few hours, in a little jelly or cream. On the following morning a dose of castor-oil is administered, and the doses of each drug may be repeated in this way every night and morning if necessary. For children the dose of santonine is from half a grain to a grain. In some cases where the drug has been prescribed many times patients have complained of seeing objects in an unnatural colour—tinged, for instance, of a green or yellow colour, but the phenomenon is transitory. The urine is always coloured of a yellowish green after the use of the medicine. Dr. Anderson, to whom I am indebted for more information about santonine than I ever possessed before, is of opinion that the drug is a specific for the lumbrici only. For tape-worm he thinks it is inferior to the oil of male fern or to kamela. According to his view, the santonine acts directly on the lumbricus and destroys it. He argues that as santonine is not soluble in water nor yet in weak acid solutions, it passes through the stomach, when it has been taken in the form of powder, without undergoing any change. It thus, he thinks, progresses through the canal until it mixes with the alkaline fluids in the duodenum, in which it is freely soluble. Here it meets with its victims, the lumbrici, and here it destroys them by its direct action on them as a poison. On this view it is most advisable always to administer santonine in the solid form—that is to say, in a powder held in suspension in some thick fluid. According to this view also, santonine is not to be considered as a purgative—in fact, in ordinary doses it is not a purgative, but rather an astringent, so that a dose of castor oil is necessary after the santonine, to remove the parasite when it has been locally destroyed.

In my next paper I shall refer to points connected with the Surgical practice of the Hospital, and to matters connected with the sanitary organisation.

FOREIGN CORRESPONDENCE.

AMERICA.

Brandy Station, Va., May 3, 1864.

Although summer suns are now shining upon it, the Army of the Potomac is still lying quiet on the northern bank of the Rapidan. The greater number of the troops are occupying the huts they built in the early part of December, 1863, one or two divisions only having prepared for the commencing campaign by moving out of their winter quarters, and reducing their accommodations to a campaigning standard. Everything is quiet at present, but that this state will not long continue is clearly demonstrated by the various preparations that have of late been made. The Medical Department among others, profiting by its experiences in previous campaigns, has been deeply engaged in endeavours to foresee and prepare for all the accidents of coming active service. It has arrived at its conclusions now, and is ready for the field, satisfied that the wounded after next battle will have to complain for want of neither food nor shelter, nor for what in this war they have never had cause for complaint, lack of prompt Surgical attention. To mention to you some of these preparations is my present object.

It has been considered judicious to order the breaking up of all regimental Hospitals immediately on receipt of marching orders. This has been rendered necessary by a reduction that has lately taken place in the transportation allowed for Medical supplies; hitherto, one waggon was permitted to every 500 men, but now this has been cut down to three waggons for 1500, and for every 1000 men beyond that number in a brigade, one waggon additional. This allowance of transportation is insufficient to carry all the furniture and supplies necessary to the establishment of a Hospital with each regiment, and at the same time to enable the Medical Department to have forthcoming on the field of battle all the requisites for the prompt formation of a Division Field Hospital. In order to economise this diminished allowance, it was evident that a reorganisation upon a different basis of all the Hospitals would be required. But independent of this reduction, the difficulties experienced in carrying on regimental Hospitals upon a march, and the small satisfaction they have hitherto given, had led to doubts concerning the propriety of continuing them in future when on active service.

Let, for instance, a regimental Surgeon have four or five men so sick as to be unable to march. They ride during the day in ambulance, and at the end of the journey are deposited with their regiments, to be cared for by the Surgeon. Now, it sometimes, nay, very often, happens that the waggon train carrying the Hospital property may go into camp many miles in rear of the troops to which it belongs, and in this case the Medical officer is *sans* tents, *sans* bedding, *sans* mess-chests, medicines, everything. So much for the working of regimental Hospitals on a march. What, under such circumstances, can the Medical officers do?

These are to be substituted now by one Hospital to every division, which will travel in the immediate rear of the troops, along with the ambulances, and be called the "Ambulance Hospital," and which, on the field of battle, will form the nucleus of the division Hospital. Attached to it there will be three Medical officers,—a Surgeon in charge, and two assistants, one of these latter becoming, when during a fight the division field Hospital is organised, the recorder of this institution, the other being intrusted with the charge of providing food and shelter for the wounded. These Medical officers will draw their supplies of medicine for the treatment of sick from the brigade supply waggons of their division; but, in addition to this, they will be provided with one waggon to carry a reserve stock of such articles as are of greatest value during the progress of an engagement—stimulants, anodynes, dressings, concentrated essence of beef, etc. Three or four army waggons loaded with tents and flies for shelter will also accompany them, and these, with the ambulances, will constitute all that they care to have with them in the field. The remainder of the army waggons allowed the de-

partments will be loaded up with such regimental Hospital property as has not already been turned in for want of transportation, and it is immaterial whether these accompany the troops on the march or not, as they and their contents will prove of no value until the army settles down into some comparatively permanent camp. The ambulances have been converted into supply waggons on a small scale, each being ordered to carry twelve pounds of beef stock, half-a-dozen cups, spoons, plates, a lantern candle, camp-kettle, etc. The allowance of ambulances has been fixed at one to commands under 200 strong, two to those under 500 men, and three to such as count more than that number in their ranks.

This train, then, of ambulances, Medical waggons, and army waggons containing supplies and shelter, with the three Medical officers and the attendants—twelve in number—will, during the ensuing campaign, march in the immediate rear of the troops, picking up such men as may be taken suddenly sick, or such as may be so exhausted as to be unable to proceed farther. At the end of the day's march, thoroughly sick men will become inmates for the night of the ambulance Hospital. Under the direction of the Surgeon-in-charge, so many tents as the number of sick may indicate will be pitched, stretchers, bedsacs, blankets unloaded, medicine waggons opened, and cooks set to work. Half an hour after the train reaches camp it is confidently expected that a comfortable field Hospital will be established, and that it will be working as smoothly then in all its departments as if it had been in active existence on that spot for many a day previous. Next morning, supposing the march to be resumed, the patients will be replaced in the ambulances, tents struck, waggons packed, and the train will move on as before, in rear of the marching column.

When a battle is imminent, this ambulance Hospital will become enlarged, and changing its title to division field Hospital, will be prepared for the reception of the wounded brought in from the front by the ambulances and stretcher-carriers. While the troops are being formed in position either to assault or to repel an anticipated attack of the enemy, the Medical staff of the command—the Medical Director of the Corps and his Surgeon-in-Chief of Division—having made themselves acquainted with the position and direction of the lines of battle, will ride immediately to the rear in order to locate the Hospitals. To find a good spot is oftentimes a matter of difficulty, as it must offer a dry soil, good water, shade, shelter from artillery fire, and, should the lines chance to be driven in, from musketry also. One of the most important desiderata is the existence of, or the practicability of rapidly forming, free lines of communication both to front and rear for the use of the ambulances. Having settled upon the point at which the Hospitals are to be established, the waggons will be ordered to the spot, while the ambulances, having been unloaded of whatever sick they may have been transporting, will be hurried forward to be upon the field if possible before the first blow is struck. As they make their way to the front they will hang from the branches of trees at different points along the route their guidons—small yellow flags—to direct such wounded as can walk to the Hospitals. Having arrived within a couple of hundred yards, more or less, according to the nature of the ground, of the line of battle, they will halt in some sheltered position, to which the stretcher-bearers will carry the wounded. Two or three Medical officers from each brigade will report at this ambulance depôt to attend to such cases as may require immediate interference, but they are prohibited from resorting to any operation which can be delayed, without detriment to the patient, until he reaches the field Hospital.

Each ambulance, as soon as loaded, will drive off to the spot indicated as the site of the Hospital, and by the time the first one will arrive there, it is expected that the different division Surgeons will have their arrangements perfected. All the tents and flies will have been pitched, operating tables set out, and kitchens formed on an extensive scale. All the Medical officers of the division, except such as have been specially detailed to accompany their brigades into action, will have reported to operate, assist and apply dressings, bringing with them their regimental nurses and the members of the various bands and drum corps to act as attendants. Dr. Letterman's Circular of October, 1862, in which the establishment of such an Hospital as this is ordered, directs that one Medical officer to each regiment shall accompany his command into action; but the campaigns of 1863 have shown that this number is unnecessary. It is not upon the field, but at the Hospital that Surgical experience and skill are required. Very seldom does the Surgeon by his presence at the front save a life that would otherwise be lost. All that he is usually called upon to do, manually, is to apply some simple dressing such as can readily be performed by any Hospital steward. His grand duty is by some cheering words and a little stimulant to keep up the spirits of the wounded man until he is safely lodged at the rear in Hospital. It has been considered that two or three Medical officers to each brigade, according to its numerical strength, are equal to the due performance of this duty, and it is proposed that in future only this number be exposed.

Such is the programme laid down by the Medical Department for next fight. How it will answer remains to be seen. Subsequent to the battle, what disposition may be required to be made of the wounded is a question that can only be decided when all the circumstances affecting the case are known. All the provision that can be made beforehand for their after-treatment consists in the publication of special orders detailing certain Medical officers and attendants, in the event of the army having to abandon the Hospitals, to remain behind in charge of them, and in setting aside supplies of food and dressings for their use.

NEAR TOLOPATAMOY CREEK, VA., June 1, 1864.

While engaged on the afternoon of May 3 in writing the above, the long-expected order arrived. The campaign was about to open. "We march to-night at eleven o'clock." No more writing for me. My portfolio was put aside, and until now, owing to the fatiguing marches and countermarches we have made, and the continued series of skirmishes and battles in which we have been engaged, from the Rapidan to the Pamunkey, no opportunity has been afforded me of resuming it.

I was occupied in mentioning to you the preparations made by the Medical officers for active service. These I shall cut quite short, and finish by giving you a few notes of the campaign as up to this date they are entered in my note-book. I had intended to record some little incidents of winter quarters, and to give you sick-rate and mortality figures for the spring months; but these I will now pass to one side, merely remarking that the rate of sickness continued as usual—low—a little over four per cent. The many recruits and returning veteran regiments joining us brought small-pox to camp, but the disease was kept isolated, and gave us but little uneasiness.

Towards the latter part of April the sick of the army were sent by rail to Washington, in order to disencumber it, and save confusion if some unforeseen accident should precipitate the move. About May 1, those cases unable to march, and who were not expected to be capable of resuming duty within a few days, were also despatched to the rear, leaving the army at its maximum of mobility.

The brigade supplies of stimulants, dressings, and such articles as are essential after an engagement, were kept constantly full; of whiskey and chloroform, indeed, a double supply was ordered to be drawn from the purveyor. Repeated inspections of the waggons were made to ascertain that they were all loaded as represented. In case these supplies in the course of the campaign should become exhausted, the Medical purveyor was ordered to accompany the army on its march with a train of thirty waggons, from which he was to issue to the brigade Surgeons on presentation of their approved requisitions.

All the Operating Surgeons were furnished with parchment labels to attach to the specimens they were expected to obtain and preserve after the anticipated battles.

All the army waggons, medicine waggons, and ambulances belonging to the departments requiring repairs had these during the course of the spring as thoroughly effected as could be performed in the field, and a full supply of stretchers, guidons, and other property had been obtained. After the passage of the Ambulance Bill, the corps was reorganised, each man being examined by the Medical officers to ascertain that he was perfectly sound; for it is a favourite plan with many regimental commanders, when they have a more or less worn-out man in the ranks to get rid of him by having him detailed for duty with the ambulance corps.

All details were made, and every Medical officer, in the event of a fight, knew the points to which his duty called him. In a word, the afternoon of May 3 found us as well prepared for the commencing campaign as we could expect to make ourselves.

At 11 p.m. we marched—nearly 30,000 strong. In these notes it is to the Second Army Corps I have reference. I have but few, and those accidental, opportunities of learning what is transpiring in the other corps of the army. We

marched, and, crossing the Rapidan at Ely's Ford, continued on through the wilderness to Chancellorsville and beyond it. But we camped one night in the neighbourhood of the Chancellor House, whose blackened brick walls brought back to every heart the memories of just one year ago. I wandered, like many another, through the thick-set woods, scanning the traces of the former fight; and they were numerous. Knapsacks, clothing, cartridge-boxes, bayonets, bullets, shell fragments, and bones were everywhere. I picked up but one thing as an object of interest from the field—a mummified foot, the soft parts entire, but owing to the shrinking that had taken place only one of the toe-nails remained.

On the afternoon of the 5th, the whereabouts of the enemy having been discovered while the troops were being formed along the Brock-road, which crosses the Chancellorsville-plank at right angles, about four miles west of the burned house, a site was selected for the field Hospitals. A clearance in the woods half-a-mile in rear of the line of battle on the Brock and three-quarters of a mile on the left of the Plank-road position chosen. It was sheltered by a rising ground from musketry, but if artillery had been resorted to during the course of the engagements it is supposed that many a shell would have exploded in this vicinity. Fortunately, however, the nature of the ground prevented the use of the field batteries. There was free communication between this site and all parts of the front, but the roads were somewhat roundabout. A stream of clear cold water ran through the clearance, the soil was dry, and the trees in the vicinity offered shade, should the tents and flies be insufficient to cover the number wounded.

As had been anticipated, everything worked well; in fact, it was a matter of universal remark among the command that in no previous fight did the wounded of the corps, on being carried to the rear, find the preparations made for their reception so complete. The battle lasted, with intermissions, during the whole of the 6th and 7th days of May.

On the afternoon of the 7th preparations were made for sending away the wounded in Army waggons and ambulances to Washington. Medical officers and attendants were detailed to accompany them, and a plentiful supply of food was cooked for their support on the journey. As the Army waggons had not yet reported, and as twilight was creeping on the ambulances (half of the whole number belonging to the command) were loaded up with the worst cases and sent away, accompanied on foot by all those who were considered able so to reach Rappahannock station, where the cars would be awaiting them.

Presently a number of waggons reported for wounded, but by no means sufficient to carry them all away, so that it became necessary for us to leave behind us 750 patients, along with Medical officers, attendants, and supplies. The Surgeons left behind considered that, with proper economy, the food left with them would be sufficient for five days. Knowing the events, it is to be wished that more had been left with them, for some delay took place in sending supplies out from Fredericksburg, and the wounded, it appears, were placed upon short rations on the day before aid arrived; and this, the more especially that on the morning after the troops marched, wounded and stragglers crowded into Hospital from the woods, where they had been lying in such numbers that 1200, of whom 150 were rebels, had to be provided for.

The train of army waggons and ambulances proceeding on its way towards Rappahannock had crossed at Ely's Ford, when orders from Head Quarters, Army of Potomac, caused it to change its destination to Fredericksburg, which it eventually reached. 2300 wounded were sent from the corps in this train.

On the 8th we moved along the Brock-road as far as Todd's Tavern, where, in the evening, one of our brigades became engaged, losing over 100 men in wounded, whom, on the day after, we had to carry with us as far as the banks of the Po in army waggons. In crossing that river on the 9th a few men were added to this number, and the whole sent in charge of a Medical officer to Fredericksburg, while here the ambulances that left us with wounded at Wilderness Run returned, but the Medical officers that accompanied the train had been detained at the depôt until such time, it was said, as volunteer Surgeons should come down from the cities of the North to relieve them.

On the morning of the 10th one of our divisions had to be withdrawn across the Po, and to leave on the field, according to the estimate of its Surgeon-in-chief, 500 wounded. During this retrograde movement one of the Medical officers is supposed to have fallen into the hands of the enemy. He is known to have crossed the river along with his brigade, and was seen during the fight, but no further intelligence can be gleaned concerning him. Surgeon A. N. Dougherty, U.S.V., Medical Director of the Corps, during this engagement received a flesh wound of the thigh from a fragment of shell, fortunately, however, of such a character as to permit him to continue to superintend the operations of his department. The Hospitals which had been established on the north bank of the Po were removed to the left to an open ground near Alsop's Mills, about one mile from the line of battle. Over 1000 men were brought in during the course of the afternoon, who, during the night and following day, were operated on, dressed, and sent away to Fredericksburg.

On the morning of the 12th the corps made an assault upon the rebel works, and three hours after its commencement nearly two thousand wounded had been brought to the rear to Hospital. It was remarked in the cases of those severely wounded during the action of this morning that the shock was far more severe and of longer continuance than in any of those previously treated during the campaign. This is to be referred to their march during the night from the right to the extreme left of the line, in the mud and rain, and to the fact that the assault was commenced before the men had been allowed to have their morning mug of coffee. Some exceptional cases, it is true, bore up well under very serious injuries, the success of the attack—the works having been carried, and 3000 prisoners and 18 guns captured—seeming to contribute much towards keeping them up.

On the following day orders were promulgated requiring the wounded to be sent to Fredericksburg without delay, as a move was anticipated. All the transportation we could obtain sufficed to enable us to send away but 1800, so that when order to move came we had still in Hospital 200 men. These we were necessitated to leave behind us, with a sufficiency of food, shelter, dressings, and attendants. As all operations had been performed, only one Medical officer remained with them. Some active skirmishing occurred on the 14th and 15th, yielding wounded enough to keep the Medical officers continually on the *qui vive*. Some fifty severely wounded Confederates were brought in, and being cared for, were despatched to the Fredericksburg depôt along with their enemies. On the afternoon of the 16th, the Second Division with a section of artillery marched to the Hospital near Alsop's Mills which we had abandoned on the 13th. A train of ambulances and empty army waggons accompanied the troops, and all the wounded and the property that had been left with them were brought off. The fifth corps at the same time brought away some 500 of their men whom they had been obliged to leave a few days before. A very melancholy accident occurred here. A Medical officer belonging to the fifth corps, mistaken in the twilight for a rebel cavalry man, was shot through the chest. He died next morning. About this time reinforcements arrived for the corps, consisting of Corcoran's legion and a division of heavy artillerymen armed as infantry. The Medical officers accompanying these troops brought with them neither Hospital property nor supplies, nor transportation for sick and wounded. These had to be furnished them by turning over for their use a proportion from each of the old commands. The Medical officers, to whom everything in the field was new, were instructed in the working of the department during an engagement; in fact, everything was done that suggested itself as of use in the attempt to render the Hospital staff of the new troops as complete as are those of the old organisations.

On the evening of the 19th an attack was made by the enemy upon our right flank. The heavy artillerymen, who chanced to be encamped in the neighbourhood of the point assailed, were unexpectedly called into action, and suffered severely in the successful stand they made against the rebel onset. In order to give the new Surgeons a practical lesson in the management of field Hospitals during a fight, and at the same time fearing that their inexperience in these matters might prove detrimental to the interests of their wounded, one of the old divisions established a Hospital beside them, and aided them very materially in treating the cases as they came in from the field. Next day, the wounded (800) were sent to the depôt. The number of slight gunshot wounds about the hand in this affray was remarkably large. The majority of these, blackened by the exploding gunpowder, were viewed as self-mutilations, of an accidental or wilful character; perhaps, however, the carelessness of some excited comrade may have given rise to some of them. The wounded men from this

fight who were able to proceed to the rear without assistance, partly from their being fresh troops, but chiefly owing to the obscurity of the night, straggled along the country, became exhausted, and laid themselves down in some out-of-the-way spot. The ambulance corps had great difficulty in tracking them out and bringing them to Hospital. It has been suggested that at night, when guidons cannot be discerned, green lanterns be used to mark the position of Hospitals.

After this came the march by the left flank through Bowling-green and Milford, and across the Mattapony river to the North Anna. On the 24th, in forcing the passage of the latter river, and, subsequently, in holding our position there, we experienced some loss. The wounded, after being treated, were sent to Port Royal in army waggons. Here it may not be improper to remark that great inconvenience is sometimes experienced by the Medical Department on account of the failure of the army waggons to report at the Hospitals for the wounded at the time mentioned in the orders. For instance, in the case of those wounded at the North Anna the waggons were expected at 4 p.m. Ten did reach the grounds at that hour, but the last of the train did not report until an hour after midnight. The evil arises from the Commissary Department not being notified early enough. The order reached the waggons loaded with supplies at midday. They were then seven or eight miles in rear of the troops, so that it was late in the afternoon before they reached the front. Some unforeseen delays occurred in issuing the rations, so that before the last of the now empty waggons were enabled to reach the Hospital the night was far spent. This delay did not interfere with the transfer of the wounded of this corps to the rear, but a few men (thirty) belonging to the ninth corps, who were intended to be sent away, had to be carried as far as the Pamunkey. The division to which these men belonged marched at 11 p.m., and the Hospital and ambulance had to follow it. Two hours thereafter seven or eight waggons, ordered to carry these wounded to the rear, reached the ground on which the Hospitals had been.

We left the North Anna, and, marching by the left flank again, we succeeded in gaining the Pamunkey, which we crossed, and are now drawn up in line of battle across the Richmond Road in front of the point where it is crossed by that leading from Hanover Court House to Cold Harbour. Half a mile in rear of this crossing are the Hospitals. Some loss was occasioned in forcing our way across Tolopatamoy Creek, and the wounded having been attended to in Hospital, were yesterday sent off to Whitehouse, which is now our depôt for wounded.

I have not had the satisfaction of paying a visit to either Fredericksburg or Port Royal while the wounded were there, and so can say nothing concerning the dispositions made there for them. I understand, however, that quite a number of Surgeons, many of them men of note from civil life, have volunteered their services so long as they may be required. The Sanitary and Christian Commissions are also there, I believe, quite lavish in the expenditure of their stores.

During the course of this campaign a large number of very interesting cases have occurred, some of which I will instance to you, having no time to render accounts in full. In the Hospital at Spottsylvania Battle, amputation at the hip-joint was performed by Surgeon C. C. Jewitt, 16th Massachusetts Volunteers. The case was one considered very favourable for such an operation; but the patient sank four hours after its completion. *Apropos* of the necessity for the presence of Surgeons on the field of battle, I may mention meeting at Wilderness, under shelter of the breastworks, two cases of active hæmorrhage from gunshot wounds—in one the radial required to be ligatured; in the other the brachial. In both cases the loss was profuse, and had begun to tell upon the strength of the man. An aperture of exit for a rifle ball, not generally spoken of in books, is the mouth. In a case occurring two days ago, ball entered left side of the neck, and two or three hours after was coughed up by the patient. For the first time, I have seen a death upon the operating table from chloroform. Patient was undergoing an amputation of right arm at shoulder-joint. Chloroform ceased to be administered when the first sleep was made. The arm was removed, and arteries tied, when the patient was discovered to be pulseless. Artificial respiration was had recourse to, but without avail. The man's pulse was good before the operation commenced. He walked without assistance to the table, and he lost but very little blood after arriving there. At the autopsy, four hours after death, the heart was found of very unusual size—nearly as large again as it ought to have been—and both cavities distended with blood, with thrombi formed in them, which extended upwards into the vessel. Death from paralysis of the heart.

At present, however, I must conclude.

GENERAL CORRESPONDENCE.

POOR-LAW MEDICAL REFORM.

Letter from Mr. Richard Griffin.

[To the Editor of the Medical Times and Gazette.]

Sir,—Dr. Mackesy, of Waterford, has this day (July 3) called my attention to "the Bill to provide Superannuation Allowances to Officers of Unions and Parishes." He says:—"This bill, on its introduction by Mr. Villiers and Mr. Gibson, would have provided superannuation for the Medical officers, but just prior to its passing the Commons and being sent to the House of Lords, a passage was introduced limiting the superannuation to officers who devoted their whole time to the service of the Union or parish. You must be the best judge as to the possibility of the Profession in England being enabled by any exertion to have the sentence expunged before it becomes law, or how far the Medical officers in England consider themselves interested."

Immediately on the receipt of this letter I wrote to Lord Shaftesbury, expressing a hope that he would interest himself on our behalf, and I now call on my Medical brethren to use their influence with the members of the House of Lords; the Bill has already been read twice, and, therefore, no time should be lost. The Bill itself, I grant, would have been of value but to a very few officers, still, for their sakes, it is worth an effort to have it restored to its original state.

To Dr. Mackesy I tender my best thanks, which, I am sure, will be reciprocated by all my brethren on this side the Channel. I am, &c. Richard Griffin.

12, Royal-terrace, Weymouth, July 3.

*** Since the receipt of Mr. Griffin's letter, we find that the Superannuation Bill has passed the House of Lords. It might be yet possible to introduce a clause when the bill comes again before the Commons.

OBITUARY.

THE LATE DR. A. MACDOWALL, OF HELENSBURGH.

It was our melancholy duty, a few days ago, to announce the death of this amiable and accomplished Medical Practitioner, who died at his residence at Helensburgh on the 10th inst., after a long and tedious illness. Born in Glasgow, where his father pursued a similar calling, Dr. Macdowall was early destined for the Medical Profession, and completed his studies with honour and success at the University, as well as at the Royal Infirmary of this city, where he acted for the full period as House-Surgeon, and acquired, as he always took pleasure in saying, the most useful portion of his Medical and Surgical knowledge. On the breaking out of hostilities in the Crimea, he volunteered his services as Surgeon to the Turkish Contingent force, under command of British officers, which was quartered at Kertch and Yenikale, and which proved of considerable service during the war. In his capacity of regimental Surgeon, Dr. Macdowall distinguished himself by his exertions in promoting the sanitary condition of the troops, which, in consequence of the experimental character of the service, were sadly decimated by cholera and fever. For these and similar duties in the field he was specially mentioned in the despatches of the Director-General, and was among the few who were selected to receive from the Sultan the decoration of the order of the Medjidie, an honour which, in his case at least, was universally acknowledged to be well deserved. Immediately after the cessation of hostilities, Dr. Macdowall was solicited by the Turkish authorities to continue his connexion with the Government, with the view of assisting in the organisation of a proper Medical staff for the native army, but he preferred returning to England, an alternative forced on him in consequence of severe family bereavement. He afterwards settled at Helensburgh, in which he practised his Profession for several years; but it is to be feared that the cares and anxieties of a rapidly in-

creasing country practice, acting on a not very robust constitution, had the effect of cutting short, at the early age of thirty-three, a useful and well-spent life. To a singularly acute knowledge of his Profession, Dr. Macdowall combined in an eminent degree a cheerful and obliging disposition, coupled with strict integrity and high moral worth. His memory will be long treasured as a precious possession by his family and by his patients, as well as by a large circle of attached friends.—*Glasgow Paper.*

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, June 30, 1864 :—

Samuel Rooth, Chesterfield; Augustin Barber Fry, Sleaford, Lincolnshire; Francis John Marshall, Moulton, Northamptonshire; George Grewcock, Folkingham, Lincolnshire.

The following gentlemen, also on the same day, passed their First Examination :—

John King, King's College; John Oakley, King's College; Frederic Edward Manby, Guy's Hospital; George Jesse Barnabas Stevens, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BARNES, EDWARD C., M.R.C.S. Eng., has been elected House-Surgeon to the Royal Pimlico Dispeneary, Upper Belgrave-place.

CRUISE, FRANCIS R., M.D., T.C.D., has been appointed Lecturer on the Theory and Practice of Medicine at the Carmichael School of Anatomy, etc., Dublin.

DAVIES, ANDREW, M.R.C.S. Eng., has been elected Surgeon to the Swansea Infirmary.

ELLIS, HEBER D., M.R.C.S. Eng., has been appointed Medical Officer to Poole Union Workhouse.

HARRIS, RICHARD D., M.R.C.S. Eng., has been elected Medical Officer for the Workhouse of the Kingston Union, Surrey.

JONES, JOHN T., M.B. Lond., has been appointed House-Surgeon to the Infirmary and Dispensary, Loughborough, Leicestershire.

PEARSON, THOMAS R., L.R.C.P. Edin., has been appointed Assistant Medical Officer to the Middlesex County Lunatic Asylum, Colney Hatch.

DEATHS.

BOWIE, WILLIAM, M.D. Edin., at Bennett-street, Bath, on July 2, aged 72.

FOOTE, RICHARD F., M.D., at 16, Blomfield-street, Westbourne-terrace, on June 16, aged 37.

HAMBLIN, HENRY JOSEPH, M.R.C.S. Eng., Colonial Surgeon at the Falkland Islands, at sea, on the Royal Mail Steam Ship *Parana*, on June 23, aged 55.

HEELAS, NEWTON, M.R.C.S. Eng., at Wokingham, late Senior House-Surgeon, Northern Hospital, Liverpool, on June 25, aged 29.

SMITH, JOHN COLPOYS, late Surgeon Bengal Army, at Rydal, on June 28, aged 54.

SMITH, ROBERT A., M.R.C.S. Eng., of Taunton, Somersetshire, on June 1.

ARCHBISHOPS' MEDICAL DEGREES.—A Parliamentary return shows that since 1840 Medical degrees have been granted by the Archbishop of Canterbury to the following persons :—In 1840, to Robert Hull; in 1841, to Sir William Hyde Pearson; in 1849, to Joseph Laurie; in 1850, to William Bayes; in 1851, to Edmund Charles Johnson, Frederick Gilder Julius, and John Green Bishop; in 1854, to George Canney; in 1855, to John Hodgson Ramsbotham and Ralph Barnes Grindrod; in 1858, to Edwin Cronin and William Baker; in 1861, to Edward Westall and John Rayner; and in 1862 to William Sherwin. In the twenty-three years 1840-62 the Archbishop conferred Medical degrees upon fifteen persons.

THE PUNISHMENT OF DEATH.—WHITEHALL, JULY 4.—The Queen has been pleased to direct letters patent to be passed under the Great Seal, appointing the Most Noble Charles Henry, Duke of Richmond; the Right Hon. Edward Henry Smith Stanley (commonly called Lord Stanley); the Right Hon. Stephen Lushington, D.C.L., Judge of Her Majesty's High Court of Admiralty; the Right Hon. Sir John Taylor Coleridge, Knight; the Right Hon. Thomas O'Hagan, Her Majesty's Attorney-General for Ireland; James Moncrieff, Esq., Her Majesty's Advocate for Scotland; Horatio Waddington, Esq.; John Bright, Esq.; William Ewart, Esq.; Gathorne Hardy, Esq.; George Ward Hunt, Esq., and Charles Neate, Esq., to be Her Majesty's Commissioners to inquire into the provisions and operation of the laws now in force in the United Kingdom under and by virtue of which the punishment of death may be inflicted upon persons convicted of certain crimes, and also into the manner in which capital sentences are carried into execution.—*From the London Gazette*, Tuesday, July 5.

AID TO MEDICAL CHARITIES.—The friends of the following institutions will be glad to learn, that under the will of the late Frederick Richard Magenis, Esq., of Grosvenor-place £1000 is to be equally divided among the undermentioned Hospitals, viz. :—The Middlesex Hospital, the Convalescent Institution, Walton-on-Thames, the Royal Free Hospital, the *Dreadnought* Hospital Ship, and the Royal Sea Bathing Infirmary, Margate. The late Samuel Brooks, Esq., a wealthy banker of Manchester, has bequeathed £1000 to the Royal Infirmary of that city.

THE GANGES.—Since the issue of the order by the Bengal Government, no more bodies have been thrown into the river from the gaols and Hospitals. The opposition on the part of the natives at large has been successful, and they do with their dead as they did before. But a great difference is made in the river by the stoppage of the supply from the gaols and Hospitals.

SOCIAL SCIENCE ASSOCIATION.—This Association will hold its eighth annual meeting in the city of York from September 22 to 29, under the presidency of Lord Brougham. His Grace the Archbishop of York is one of the Vice-Presidents, and also the President of the Education Department. The Right Hon. Sir James Wilde, Judge of the Probate Court, presides over the Department of Jurisprudence. The other chairs have not yet been filled up. The Council of the Association have found it necessary, owing to the annual pressure of business, to adopt new regulations. In each of the Departments, now reduced to four, three special questions are put, and a day is to be devoted to the discussion of each, the voluntary papers being read and discussed on the remaining days. The following are the questions in the Health Department :—1. What are the best means for disposing of the sewage of towns? 2. What are the causes, and what are the means for the prevention of, excessive infant mortality? 3. What is the influence on health of the overcrowding of dwelling-houses and workshops; and by what means could such overcrowding be prevented?

GLYCEROLÉS.—In a recent report to the *Societé de Pharmacié*, M. Hébert, after describing how impure glycerine may be purified by the aid of animal charcoal, observes that its elementary composition $C_6H_8.O_6$ confers upon this liquid the singular property of holding in solution both highly oxygenised substances and those which are rich in carbon and hydrogen. It is owing to this property that MM. Cap and Garot have been able to devise a new description of officinal solutions, having glycerine as a vehicle, and which they term *glycerolés*. Among these are *glycerolé of iodine*, prepared by dissolving, at a gentle heat by means of the water-bath (but only just when it is wanted), 1 part of iodine in 100 of glycerine; *glycerolé* of *iodide of potassium* is made with 10 parts of the iodide to 100 of the glycerine; *glycerolé* of coal tar is prepared with 30 parts of glycerine, 20 of gum, and 15 of alcoholic extract of coal tar; and *glycerolés* of the various metallic salts—*e.g.*, sulphate of iron or nitrate of silver—are made by solutions of 10 parts in the 100 of glycerine, as also are *glycerolés* of conium, belladonna, opium, quinine, etc.—*Bull. de Therapeutique*, June 15.

POISONING BY LUCIFER MATCHES.—On June 30 Mr. Humphreys, the Coroner for East Middlesex, resumed an inquiry at Mile-end respecting the deaths of the two children, Louisa and Elizabeth Stapher. It appeared from the evidence that death was attributable to the children having sucked lucifer matches, on which Dr. Letheby was requested to make a post-mortem examination. He said that the stomach of Louisa Stapher was greatly inflamed, and the contents showed traces of phosphoric acid and traces of lead. They had been acted upon by a very violent irritant poison. He had analysed fifty matches given to him by Mr. Atken, the Surgeon, and he found that they contained 1·154 grains of phosphorus and four grains of red lead. A grain and a-half of phosphorus had killed an adult in twelve days, and sometimes one-third of a grain had killed. He was of opinion that the children died from phosphorus. Common phosphorus was highly dangerous, but matches could be made with prepared phosphorus, which would be entirely innocuous. He strongly

urged the necessity of Government interference in protecting children from the dangers to which they were subject from the manner in which lucifer matches were at present made. The jury, after hearing a very decided expression of opinion on the subject from the Coroner, returned as their verdict, that the deceased children died from the poison of phosphorus inhaled by sucking lucifer matches, they being ignorant of its effects, and that they lost their lives through misadventure. The jury further recommended that the Coroner write to the Secretary of State, suggesting that measures should be taken to prevent the manufacture and sale of dangerous phosphoric matches such as those which had killed these children.

Laying the First Stone of the New Wing of the London Hospital.—The ceremony of laying the first stone of the new west wing of this Hospital was performed on Monday last by the Prince of Wales. Whitechapel wore a holiday appearance on the occasion, crowds of people welcomed their Royal Highnesses the Prince and Princess, and the thoroughfares were decked with bunting of all colours. Their Royal Highnesses were received at the principal entrance of the Hospital by His Royal Highness the Duke of Cambridge, the President, the Vice-Presidents, and the members of the Committee of the Hospital, who conducted them to the place where the stone was to be laid. When the Prince and Princess had reached the marquee under which the stone was suspended, and had taken their places facing it, His Royal Highness the Duke of Cambridge read an address detailing the operations of the charity, which, since its establishment, has aided 1,300,000 persons, and which is now greatly at a loss for additional room. His Royal Highness the Prince of Wales said that it gave him great pleasure to join in such a work, and to assist his illustrious relative, who was ever foremost in works of charity, in commencing what, it was to be hoped, would be even a more successful career for that admirable Institution, the London Hospital. When the succeeding applause had subsided, the Bishop of London offered up a prayer for the success of the work, and then a choir, formed of the gentlemen and boys of the Chapels Royal and of Westminster Abbey and St. Paul's, under the lead of Mr. Francis, chanted a selection from the Prayer-book version of the 107th Psalm; after which the Prince, taking a silver trowel from Mr. C. Barry, the architect of the new wing, proceeded to lay the mortar. A bottle containing current coins of the realm, and a copy of the last annual report of the Hospital, was deposited in a cavity in the lower stone; and then the stone was lowered to its bed, the Prince giving it, after the architect had tried and found it true, three taps with a mallet made of a thorn tree as old as the Hospital, which grew upon the very spot where the stone now stands. Great delight was manifested by the spectators when the Princess, stepping forward, received the mallet and repeated the taps, giving at the same time one of those happy smiles which so well become her genial face—never, we are glad to say, looking better. The Old Hundredth Psalm was then sung in unison. The bishop gave the benediction, and then, conducted as before by the president and the committee, their Royal Highnesses reentered the Hospital, and the Prince paid a visit to the principal wards. The following are some particulars concerning the new building:—"The proposed new west wing will be 140 feet long by sixty feet wide, and will contain in the basement story a large waiting hall for out-patients, Surgeons' and Physicians' rooms, laboratory, dispensing, and other offices. The ground and one and two pair floors will contain large wards for men, women, and children, together with separate wards for Jews, and suitable offices adjoining thereto. On each of the several floors will be the requisite rooms for nurses and other attendants. The dormitories will be fitted up exclusively for the sleeping apartments of the nurses and domestics connected with the institution, and it is expected that there will be accommodation for 200 additional patients, exclusive of the requisite offices for the attendants. The contract has been taken by Messrs. Hill and Keddell, contractors, of Whitechapel-road, for the sum of £23,000 under the superintendence of Charles Barry, Esq., the architect." At five minutes past two their Royal Highnesses, conducted by the Duke of Cambridge, entered a very large marquee, in which a *dejeuner* was laid for 1000 persons, and taking their places at the high table from which the others radiated—the Princess on the Duke's right, the Prince on his left, and the Bishop of London next the Princesss—were welcomed by the company just as heartily as they had been greeted by the throngs of East-end charity children, who, with their banners, were drawn up in the pretty gardens through which the Royal guests passed to reach the marquee. When justice had been done to the luncheon, the Duke of Cambridge, in a few words, proposed the toast of "The Queen," which was duly honoured, and was followed by that of "The Prince and Princess," given also by the Commander-in-Chief. The Prince said—"After the kind and flattering manner in which my illustrious relative has proposed the health of the Princess and myself it would ill become me if I did not warmly return thanks for the honour you have done me. To encourage the great national institutions, in which myself and the Princess naturally take a deep interest, will ever give great pleasure to us. I have walked through the wards of the Hospital to-day, and I can bear testimony to the great general efficiency of the charity. I hope the new wing, which will be called after the Princess—the Alexandra wing (cheers)—will do much to relieve the necessities of the district. I wish that the wing may never be full. (Great cheering.) I beg to propose to you 'Prosperity to the London Hospital.'" The toast having been drunk with enthusiasm, Mr. T. Fowell Buxton, chairman of the house committee, then announced the subscriptions towards the special object. Among the sums given these were some of the principal ones:—J. Gurney Barclay, Esq., £1000 per annum for three years, £3000; Sir T. F. Buxton, Bart., £500; T. Fowell Buxton, Esq., chairman of the house committee, £3000; Charrington, Head, and Co., £500 per annum for two years, £1000; Octavius E. Coope, Esq., £500 per annum for two years, £1000; John Davis, Esq., V.P., £315; East and West India Dock Company, £500; Hoare and Co., £300; John Hodgson, Esq., £500; Ind, Coope, and Co., £500; Hon. Rustomjee Jamsetjee Jejeebhoy, per R. W. Crawford, Esq., M.P., steward, £2000; Andrew Johnston, Esq., £100 per annum for three years, £300; Mann, Crossman, and Paulin, £500; Lady Morrison, Three per Cent. Consols, £1000; Henry W. Peek, Esq., £315; Truman, Hanbury, Buxton, and Co., £1000. The total amounted to the enormous sum of £30,621. The present Hospital professes to afford accommodation for 320 patients only, but from the numerous accidents and the number of severe cases occurring amongst the dense population in the neighbourhood, that number has often been exceeded. The Jews' ward, with the separate kitchen attached, is a special feature of interest in the charity.

The Hunterian Museum.—The fine skull of the Greenland whalebone whale (*Balæna mysticetus*, Linn.), which formed part of the original Hunterian collection, and which has for many years been placed in one of the courtyards of the College, almost inaccessible to the visitor, and where it was suffering considerably from the effects of exposure to the weather, has been removed into the building, and now forms a conspicuous object at the end of the Eastern Museum. The animal to which this skull belongs is, owing to the persecution it has undergone for the sake of the whalebone and train-oil which it yields, become scarce and driven into the extreme northern regions of the sea, and, notwithstanding the immense number that have been killed by whalers from our ports, no complete skeleton has ever been received in this country. The Council of the College have, therefore, been fortunate in receiving through Professor Reichardt, of the Royal Museum, Copenhagen, the perfect skeleton of a adult female, which was killed about two years ago at Holsteinbeg, South Greenland. The gigantic bones have been received in safety, but as they have to undergo a process of cleaning it will be some time before they can be articulated and exhibited in the Museum. The length of the animal was about fifty feet, the head alone measuring eighteen. The visitor to the museum should also observe the fine skeleton of a grampus (*Delphinus orca*) suspended near the lower gallery on the left hand side of the Eastern Museum. This is the animal taken in the Thames in 1757, and figured in Hunter's paper on whales in the Philosophical *Transactions* for 1783. The skeleton is now for the first time exhibited, and the manner in which the bones have been put together so as to preserve the natural curves of the spine and general configuration of the animal reflects great credit on the articulator's skill. Another recent and important addition to the physiological department of the museum is a very interesting series of preparations of the internal ear in man and the lower animals, prepared by and purchased from Dr. Max Hubrich, of Munich; among them are some remarkably delicate preparations of the membraneous labyrinth of the human ear. Mr. Flower, the conservator of these treasures, who has recently and deservedly been elected a Fellow of the Royal Society, has proved himself an admirable successor to Owen

and Queckett by his excellent taste in the preservation and display of the contents of the museum of the Royal College of Surgeons.

AN INDIAN PRISON.—The great gaol at Calcutta is outwardly a large and imposing-looking building. Within it is den of iniquity, a sink of filth so vile that were I to attempt to describe it you would possibly think I had been led into exaggeration. The official statement of Mr. John Strachey, President of the new Sanitary Commission, will not be open to such a suspicion. What he found was that no one could tell how many prisoners died in this gaol. That some are murdered by the native gaolers in the attempt to extort bribes from them and their friends is proved by a recent case tried at the High Court. The Medical officer of the place could not say for certain what the "mortality" was. The wards were almost poisonous in their filth. "I have never in my life," writes Mr. Strachey, "seen any rooms used for human habitation in which the state of the atmosphere was so offensive." "The stench in these rooms and in the corridor which leads to them was almost insupportable." Forty men were thrust into a place to sleep in which open earthenware vessels "were used for necessary purposes." The result is "that the whole floor, which is paved with brick, has become perfectly saturated with filth to a distance of some yards from the window; and, as before stated, the only fresh air that can enter the ward must pass over this filth before it can reach the prisoners." Sir John Lawrence visited the prison one day, and when he came to these wards he was told that they were urinals. "I could hardly say," adds Mr. Strachey, "that the facts had been misrepresented." This gaol is never visited by an inspector; native gaolers lock the prisoners up in cells stark-naked, and keep them there without food; and, practically, there is no supervision whatever. We have almost revived the tortures of the black-hole in the chief gaol of the capital. In the burning climate of India prisoners are thrust into cells "seven feet by five by nine feet high," and there left for hours. At home so gross an abuse would be impossible. Here it has existed for years with not a word of complaint, or even of comment. Had not this Sanitary Commission been formed it might have lasted for ever.—*Times' Correspondent.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Coghlan's paper is in the printer's hands.

De Candolle.—The very extensive and valuable herbarium of Mauritius plants formed by the late Dr. Philip Burnard Ayres, of the Civil Service, has been presented by his widow to the Royal Gardens at Kew, where, on application to Dr. Hooker, our correspondent no doubt could examine them.

A Winchester Surgeon.—The gentleman named was not passed over; he declined the honour. The other gentleman named would, there is no doubt, be elected: he is as popular here as elsewhere.

Boswell, Fowey.—It was the celebrated Mead who, according to Dr. Johnson, "basked in the broad sunshine of life, more than almost any other man."

"Gold-headed Cane," Fulham.—The College of Physicians' building in Warwick-lane was commenced in 1670. The Marquis of Dorchester was made a Fellow of the College of Physicians in 1680.

Armamamentum Chirurg.—The trephine is said to have been invented by John Woodall, Surgeon to St. Bartholomew's in 1626; he had the charge of superintending the Chirurgical part of his Majesty's service.

F.R.S.—Mr. Arnott will take the chair at the Fellows' dinner, and Mr. De la Garde, of Exeter, a highly-popular Fellow, will preside next year, the rule being that a metropolitan and provincial fellow should alternately preside. The selection of the chairman for 1865 was made a few days since, at a meeting of the stewards.

A Provincial Fellow.—The result of the election of Fellows into the Council of the College on July 2, 1863, was the rejection of the two retiring members of the Council—Messrs. C. H. Hawkins and T. Tatum. The candidates and their respective numbers were,—Mr. Lane, 199; Mr. Busk, 168; Mr. Hancock, 153, Mr. Hawkins, 126; Mr. Curling, 91; and Mr. Tatum, 88. Messrs. Lane, Busk, and Hancock were elected. Mr. Jordan, of Manchester, was chairman of the Fellows' Festival.

A Country Surgeon.—"A Few Plain Directions for Midwives," by a Country Surgeon, seem sensible and likely to be useful. But surely they might be improved upon. Why use the word *bowels* instead of womb? Surely a midwife, if fit for her place, ought to have better directions for stopping hæmorrhage than are here contained. The diet seems rather poor, and the directions altogether might be fuller and more explicit; yet such as they are they may be useful.

A correspondent informs us that in the report of the Anniversary Dinner of the Hospital for the Cure of Stone given in the *Morning Post* of the 24th inst., it is asserted that Mr. Walter Coulson, in the course of his speech, made the following statement:—"In every case of stone in our Hospitals, the percentage of deaths is one case out of two. . . Most of these cases of stone in the general Hospitals are neglected, because they cannot afford sufficient time for the cases under their care." We feel convinced there must be some mistake on the part of the reporter. No Surgeon having acquaintance with the management of cases in London Hospitals could have brought such a charge against their Surgical staffs.

Avicenna, Manchester.—Probably the best collections of engraved Medical portraits open to the inspection of our correspondent are contained in the libraries of the College of Surgeons and the Medical Chirurgical Society. The former owes its origin to a small collection given by the notorious Fauntleroy, the banker of Berners-street, who was hanged for forgery, to the late Mr. Wadd. This gentleman, who was a Member of the Council of the College, increased it greatly, and published a very interesting catalogue under the title "*Nugæ Chirurgicæ.*" At his death the College purchased a great part of the collection for £75. On the death of Dr. Young, of Lambeth, a few years since, his brother, Sir Charles George Young, Garter King of Arms, gave the large and valuable collection formed by him also to the College. The late Mr. Soden, of Bath, also possessed a large collection, and at his death the son of this estimable gentleman presented the collection to the Royal Medical and Chirurgical Society, the Council of which institution soon after purchased of Mrs. Squibb the large collection formed at great expense by her husband for the sum of £70, which amount this lady generously presented to the Royal Medical Benevolent College. The collection of Dr. Diamond was sold to the Hon. Mr. Hope, by whom it was presented to the University of Oxford. Mr. Stone, of the College of Surgeons, has a large collection, which possesses the additional interest of being accompanied by autograph letters of the originals. The collection of Dawson Turner's, of Yarmouth, was disposed of by auction some years since. We have not heard what became of the collection of Dr. Raffles, of Liverpool.

AN APPEAL TO THE CHARITY OF THE PROFESSION.

THE Rev. H. Bromfield, vicar of Blockley, begs to call the attention of the members of the Medical Profession to a case of great destitution, and solicits their contributions on behalf of the bereaved widow and children.

Mr. Edgar Bull, Surgeon, resided and practised in the village of Blockley for several years. On a foggy night in January, 1863, on his way home from a patient, he fell down a bank, and sustained a bad fracture of the leg. A long confinement to his bed, and the consequent loss of income, preyed upon his health and spirits, and although he partially regained the use of his limb, the constitution received so severe a shock that his mind gave way, and in a paroxysm of mental aberration he precipitated himself from a window and was killed.

Mr. Bull has left a widow and four children. The eldest son (19) is in a draper's shop, but two daughters, a son, and the widow are utterly destitute. The publishers of the *Medical Times and Gazette* have kindly consented to receive contributions, which will be applied to establish the widow in a grocery business, in the hope that she may support herself and keep a home for her children until some provision can be made for them.

Contributions will also be received by Admiral Collier, C.B., and Rev. H. Bromfield, Blockley; Charles W. Morris, Esq., Surgeon, Chipping Campden; Dr. Moore, 15, Charles-terrace, Victoria-park, London; Dr. Kingsley, Stratford-on-Avon.

Blockley Vicarage, Worcestershire.

GRIFFIN TESTIMONIAL FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following subscriptions have been already received on behalf of the above fund:—Hy. Blenkarne, Esq., City of London, £1 1s.; Hy. Sutherin, Esq., St. Pancras, £1 1s.; J. Clark, Esq., Shoreditch, £1; Dr. Robt. Fowler, East London, £1 1s.; A. M. Champneys, Esq., Whitechapel, 10s. 6d.; T. M. Kendall, Esq., King's Lynn, 2s. 6d.; T. B. Humphreys, Esq., City of London, £1 1s.; Dr. D. King, Lewisham, 10s.; J. G. Gerrans, Esq., St. Marylebone, 5s.; Henry Terry, Jun., Esq., Hardingstone, 10s.

I am quite willing to take entire management of the fund, if generally desired. I am, &c.

ROBERT FOWLER, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, July 6.

CURE OF CORPULENCE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—About twenty years ago I was walking along Pulteney-street, Bath, carrying about with me nearly sixteen stone of superfluous flesh, when the thought came trickling through my brain that I was once in my life deemed thin, viz., after a voyage of six weeks; and that possibly if I placed myself upon sea rations the same result might be obtained. The next morning for breakfast at eight, I abstained from bread, which I could not procure at sea for love or money, as the saying is—likewise avoiding the same at dinner, tea, and supper.

I was not a little surprised to find that I lost very soon about three stone. I was then a Medical student in *forma pupillaris*. When I became a fully-fledged Practitioner, I communicated the same to the pages of your journal, February 23, 1856, and you kindly gave them insertion.

I should not have troubled you with this scrawl, which you are at liberty to publish, were it not for the letters which week after week appear in the pages of your journal upon the subject—Corpulence, or Bantingism as it is called, being the fashionable *furore*. I was induced to embody my experience upon the subject in a pamphlet which passed through several editions.

The first case, page 1, line 14, reads thus—"The following experiment or systematic plan of treatment adopted by myself, who am constitutionally fat, will clearly show that abstaining from bread and fermented liquor will remedy this inconvenience in an incredible manner."

I have before me the second edition of "Letter on Corpulence," addressed to the public by Wm. Banting—page 15, line 12, reads thus:—"The items from which I was advised to abstain as much as possible were bread, butter, milk, sugar, beer, and potatoes."

In conclusion, I will just say that I should not like to try any powerful medicine where a diet plan will suffice, lest the absorptive powers of the medicine might attack more important structures. The fucus vesiculosus and the bromide of ammonium, I believe, are waived at present.

The late Dr. Todd asked in consultation for a copy of my pamphlet.

I am, &c. ALFRED WM. MOORE.

2, Bessborough-street, June 30.

THE PRESCRIBERS' COMPANION,

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I am very sorry that Dr. Meadows should have insinuated even that I had desired to misrepresent him. The major dose of Tinct. Lobeliæ and Vinum Tabaci are correctly copied in my MS. It does not, however, in the slightest degree, affect my argument. I reasoned upon the dose in the book—"ʒj. to ʒij."—and I again repeat that it would be most dangerous to life to give either of those doses, and that neither Lobelia, Tobacco, Squills, or Veratria ought to have been included in the list of emetics. Lobelia is a most valuable medicine, and even acts more decidedly when it produces nausea, but the dose ought never to exceed 30 minims. I have known 15 minims every four hours produce at the fifth or sixth dose extreme and even dangerous prostration.

But I was most excessively surprised to find that Dr. Meadows, confessing his own want of practical knowledge in the doses of drugs, should have adopted the extraordinary inferential method which he did of getting at the dose of Tobacco wine as an emetic. Because Pereira gives the dose ♏x. to 50 as a sedative and diuretic—therefore, "I do not think I was very far wrong in giving ʒj. to ʒij. as the dose for an emetic!" and down it goes in the "Companion"—Vinum Tabaci, British Pharmacopœia, dose for an adult ʒj. to ʒij. Now, I maintain that this preparation is not in the British Pharmacopœia, and that no practical man with the fear of a coroner's inquest before his eyes would give either ʒj. or ʒij. or any dose whatever of this dangerous drug as an emetic.

Further, because Pereira gives the dose of the alkaloid Veratria as gr. ⅛ to gr. ¼, therefore, says Dr. Meadows, "I put the emetic dose at gr. ½ to gr. 2." I am very sorry indeed that Dr. Meadows persists in this fearfully dangerous mistake. Is Dr. Meadows aware that Taylor, in his Medical Jurisprudence, p. 229, relates a case in which the 1-16th part of a grain of this powerful poison produced symptoms of approaching dissolution from which the patient was with great difficulty restored? Is Dr. Meadows aware that tobacco as an injection in cases of strangulated hernia has caused death, and that the poisoning symptoms have been nausea and vomiting?

Sir, this is a very important subject. It must be remembered that these books fall into the hands of prescribing chemists as well as Medical men, and often constitute their stock-in-trade of Medical knowledge. Fancy a druggist dispensing anything between gr. ⅛ and gr.ij. of the alkaloid Veratria as an emetic. I was some time ago consulted by an old gentleman who had habitual attacks of gout, and for its treatment he kept by him a stock of colchicum wine. I asked him to let me look at the bottle, and he produced a six ounce phial, bearing the name of one of the most respectable London chemists. "Dose, from twenty drops to two teaspoonfuls." And I believe this was copied from some work on Materia Medica.

Now, most Medical men of experience would have known that in ninety-nine cases out of a hundred the minimum dose here mentioned need hardly ever be exceeded; while the major dose, containing an alkaloid closely allied to Veratria as its active principle, has been known to destroy life, and would act accordingly. But Dr. Meadows' "Companion" comes to us professedly to supply a desideratum in the new British Pharmacopœia. It comes, therefore, with a kind of authority, because few people would imagine that the author would have ventured to give us the doses of the new medicines without having "experimentally" or "practically" tried "all the medicines in the Pharmacopœia." I apprehend there are few Practitioners of twenty or thirty years' standing who have not done this over and over again. If Dr. Meadows had intrusted this part of his work to a practical man the serious and dangerous error I have pointed out would have been avoided.

I am afraid that gr. ½ of Morph. Hydrochl. is a slip of the pen. I still maintain that a quarter of a grain even of pure Hydrochlorate of Morphia is a much too large minimum dose.

I have nothing to retract about Tincture of Aconite. I believe the doses recommended by Dr. Meadows are too large. If this drug is not very closely watched, the patient will, in many cases, be placed in danger by commencing with ♏ x. of the British Pharmacopœia tincture. I hope Dr. Meadows will take what I have said in good part. I could have had no earthly motive in misrepresenting him.

I am, &c.

Colchester, June 29. C. R. BREE, M.D.

THE MILITARY HOSPITALS OF BALTIMORE.

IN anticipation of the next battle, news of which is hourly expected, the military Hospitals of this city have been cleared of every man fit to bear removal to his home in the north or west, and all preparations made to receive from 5000 to 10,000 men. Baltimore has not the accommodation for the wounded to be found at Washington, which a gentleman just arrived from that city describes as being one huge Hospital; but such accommodation as it has is kept in constant requisition. The Hospitals are situated in various parts of the town, and tax to their utmost the Professional resources of the place. I visited one of them a few days ago, immediately after a clearance had been made of the most advanced cases of convalescence, and saw as much human suffering in the space of half an hour as I care to see again in a life-time. Ten houses—one of them a large hotel, situated on one side of Camden-street, and six, including a pianoforte manufactory, directly opposite—have been hired from their owners by the Government, connected one with the other, and form the chief military Hospital of Baltimore. The wards are clean and airy, and every possible adjunct of health and comfort is provided for the wounded. Such as remained on the day of my visit were for the most part fatal cases, or cases of which the Surgeons had but faint hopes. There were men who had lost legs and arms, and men who were awaiting resignediy—and many of them unconsciously—the inevitable amputation that might or that might not save their lives, and who seemed to have lost all interest in the war and the world, and in everything around them, save perhaps in the friendly care of some sympathising nurse, who smoothed their pillows or offered them their drink or their medicine. There were some who had the crowns of their heads carried off by fragments of bursting shells, and yet survived; some shot through the lungs and certain to die, but yet thanking by a look any kind-hearted Surgeon who ventured to tell them, against his convictions, that there was yet hope; others whose jaws had been torn away, some shot in the foot, others in the hand, some through the shoulder, and some in the head—the ball in one instance not being merciful enough to take life, but to leave insanity behind it. The rooms are tastefully adorned with the Federal flag, with vases of flowers and sometimes with aquariums, or Wardian cases of ferns, and the walls hung with portraits, among which that of Jenny Lind was the most conspicuous, and appeared in every room. These gifts were contributed by the nurses, all of whom were Northern and principally New England ladies, who had read of Florence Nightingale, and, inspired by her example, had devoted their time, their kindness, their care, and their money to the relief of suffering humanity, and the elevation of the common Hospital to the comfort and the dignity of a home. Among these ladies was one in deep mourning, whose husband married her two years ago, started from the altar to the battle-field, and returned no more. Another, who paid two visits daily to the Hospital, was not exactly a nurse, but did something of a nurse's duty in her own peculiar way. She was about sixty years of age, scrupulously neat in her attire, was dressed in decent black, carried a basket of cakes on her arm, and seemed as if she had been permitted to come into the Hospital to carry on her humble trade among the soldiers. She stopped at every bed, or at every chair in which a soldier sat up reading, and offered her frugal ware, looking hurt if it were not accepted. But the good woman was no merchant. She made the cakes herself fresh every morning, and they were her free-will offerings to the men. It was all she could afford, and it was the only way that suggested itself to her mind in which she could be of service. It was supposed she had lost a husband, or more probably a son, in the recent battles, but as she said nothing about it and seemed to shun conversation, no one cared to invade the secrecy in which she chose to envelope herself. In addition to her cakes, she carried in her basket a collection of newly gathered roses; and when in her perigrinations through the wards she came to a bedside of which the occupant was palpably doomed to rise no more alive, she placed a rose upon her pillow if he slept; or, if he were awake, put it into his hand with a look of motherly commiseration, and passed on. And who shall deny the wealth of pity in her gentle action, or assert that in her humble ministrations there was no portion of those heavenly characteristics which we ascribe to the angels?—*Times' Correspondent.*

THE REPORT OF THE COMMITTEE ON POOR RELIEF.

We have been requested by Mr. Griffin to publish the following extracts from the Report from the Select Committee on Poor Relief (pages 143), May 31, 1864:—

"*Medical Relief.*

"The evidence given before your Committee, particularly by Mr. Cane, shows the increase which has taken place from time to time in the number of Medical officers, and the additional facilities otherwise afforded to the poor for obtaining Medical relief. It likewise shows the steps which have been taken for improving the *status* of the Medical officers themselves, and the additional remuneration which they have received for their services.

"In 1840 there were 2376 Medical officers, whilst in 1861 the number was augmented to 3479, being an increase of 1103. During that interval the number of unions had increased only 5 per cent., whereas the increase in the number of Medical officers was 46 per cent. Again, the number of Medical officers in 1853, the year immediately preceding the appointment of the Select Committee already referred to, was 3151, whilst in 1861 it amounted to 3479; showing not only that the number of Medical officers had been considerably increased subsequently to the recommendations of the Committee, but also that many of the larger districts had been reduced in extent.

"The amount of money expended for the Medical relief of the poor, either as direct remuneration to the Medical officers themselves, or for purposes which either immediately diminished their duties or afforded increased facilities for performing them, has been a constantly increasing charge. In 1838 the expenditure was £136,755. It continued to increase year by year until 1848, when it reached the sum of £197,954, and in 1861 it had attained the amount of £238,233. In 1840 a new class of payments, that of vaccination fees, first arose. These fees range up to £40,000, and even to £50,000 a-year, and a large portion of them are paid to the union Medical officers. Irrespectively of the fixed annual salaries, other payments are made to the Medical officers. In 1842 additional payments—namely, fees for Surgical and other services—were first directed to be made to the Medical officers. In 1847 those fees were increased in number, and they now approach £40,000 a-year. Lately a new class of payments has sprung up—namely, fees for visiting lunatics. Those fees already amount to a considerable sum. Furthur remuneration is made to the Medical officers by special gratuities for extraordinary services rendered during outbreaks of fever, etc., or in consideration of lengthened attendance upon particular cases of accident, or upon protracted illness. Generally it should be borne in mind that whilst other charges for relief have fluctuated and diminished in amount, the cost of Medical relief has steadily and largely increased from 1834 to the present time. The increase in 1851, as compared with 1841, was 36 per cent. The increase in 1861, as compared with 1851, was 13 per cent.; whereas the number of unions has not been added to in anything like a corresponding degree. It was stated to your Committee that more than one-third of the total amount of the salaries of the union officers is paid exclusively to the Medical officers in England and Wales.

"Notwithstanding these changes, in themselves so favourable to the Medical officers as a body, those officers, in so far as their views were represented by Mr. Griffin, the Chairman of the Poor-law Medical Relief Association, in a statement put in by him, advocated changes in the system of Medical relief of a most extensive character. The principal proposals are the following:—The right to Medical relief, but in some cases by way of loan, of all persons applying for such relief and declaring themselves destitute of the means for obtaining it. The right of the Medical officer to convert persons so attended by him into his private patients if their income should exceed 20s. a week. The right of the Medical officer to give imperative orders for the supply of any articles of food and any kinds of stimulants that he may consider necessary for his patients. The establishment of stores and stations for the deposit and supply of such

articles upon the unrestricted orders of the Medical officer. The introduction of a new and complicated system of remuneration, and the payment of various additional fees to the Medical officers. A provision for the superannuation of the Medical officers, and their exemption from turnpike tolls when visiting pauper patients, from the assessed taxes on one horse, carriage, and man servant, and from excise duty on the spirits of wine used in the medicines of the sick poor. The compulsory establishment of dispensaries, and the appointment of a 'Medical Secretary,' which secretary should adjudicate upon all matters relating to the Medical relief of the poor, subject to the confirmation of the Poor-law Board. In support of his statements and recommendations, Mr. Griffin handed in several voluminous tables, which were fully analysed and commented upon by Mr. Cane in the evidence afterwards given by him.

"It is evident to your Committee that many of the changes advocated by Mr. Griffin, and the distribution of food, wine, and other articles of nutriment at the unchecked discretion of the Medical officer, would unquestionably increase the expenditure for the relief of the sick, and diminish to a serious extent the control and responsibility of the guardians.

"Your Committee do not find that, under the existing system, any practical difficulty is experienced in securing the services of competent Medical Practitioners as union officers; and looking to the large number of Medical officers that are now employed to attend the sick poor, the progressive diminution in extent of districts inconveniently large, the care that has been taken to ensure the engagement only of properly qualified Medical men, their augmented remuneration, and their improved *status*, arising from their tenure of office, and from other causes, your Committee believe that the system under which Medical relief is administered has been greatly improved, and that the poor were never so promptly attended to, or so effectually relieved during sickness, as they are at the present time.

"Your Committee, however, think the suggestion made by some of the witnesses, that the guardians should provide cod-liver oil and other expensive medicines, is one of considerable importance. Dr. Rogers, one of the Medical officers of the Strand Union, recommends that the guardians should find all the medicines; but his reasons apply with greater force to the more expensive drugs. He says, 'If the guardians find the medicines, nothing would interfere to prevent the poor having administered to them the best and most appropriate remedies; on the contrary, when the Medical officer does so, the temptation is put in his way of using cheap drugs, especially where the salary is small and the duties large. Again, it would remove the suspicion sometimes entertained that the Medical officer would abuse his power by ordering wines and other *stimuli* found by the guardians in lieu of expensive drugs found by himself.' Mr. Griffin suggested that the following articles should be omitted from the Medical contracts:—Leeches, cod-liver oil, cotton wool, ingredients for poultices, quinine, and sarsaparilla. He says, 'Cod-liver oil is often necessary to use in cases of consumption for many months at a time, but its expense is a bar to its general use by the Medical officer.' Dr. Robert Fowler, district Medical officer of the East London Union, was of opinion that it would be to the interest of the poor and the ratepayers that guardians generally should supply cod-liver oil at the cost of the union.

"Your Committee find that in some unions the guardians, with the concurrence of the Poor-law Board, provide such medicines as cod-liver oil and quinine.

"78. In 1854, about half the entire number of Medical officers only held their appointments permanently; at the present time the proportion of the permanently appointed officers to those who are subject to periodical election is 2841 to 711.

"81. The views of this witness (Mr. Griffin) were to a certain extent supported by the 'Executive Council of the British Medical Association,' and by some of the metropolitan Medical officers.

"82. The changes, however, which were thus advocated would unquestionably increase the expenditure for the relief of the sick, diminish to a serious extent the control and responsibility of the guardians, whilst the distribution of food, wine, and other articles of nutriment at the unchecked discretion of the Medical officer would necessarily tend to demoralise its recipients, the poor. At the same time your Committee think that the suggestion made by some of the witnesses, that the guardians should provide at their own cost cod-liver oil and other expensive medicines is one of considerable importance.

"With such facts in evidence, the Committee have adopted the following resolution, viz.:—

"That there are no sufficient grounds for materially interfering with the present system of Medical relief, which was made the subject of special and lengthened inquiries by Select Committees of this House in the years 1844 and 1854.

"The recommendations of those Committees were for the most part carried out by the orders of the Poor-law Board, and the system of Medical relief appears to be administered with general advantage. Your Committee, however, recommend that in future cod-liver oil, quinine, and other expensive medicines, shall be provided at the expense of the guardians, subject to the orders and regulations of the Poor-law Board.

"*Continuance in Office of Paid Officers.*

"The guardians already possess the power of dismissing the inferior officers in their service, and your Committee do not think it expedient to suggest that such power should be extended to the superior officers, whose duties are prescribed by the general consolidated order. It appears to your Committee that if the tenure of the office of the latter class of officers was altogether uncontrolled by the central authority, they would not only perform their duties less independently, but would be subject to removal from personal bias, political causes, and various other motives which ought not to be allowed to operate in deciding upon their fitness or unfitness to retain office. Your Committee have, therefore, arrived at the following resolution, viz.:—

"That in order to secure the due discharge of their duties by the principal officers of unions and parishes, it is in the opinion of your Committee essential that their tenure of office should not be terminable without the concurrence of the central authority; and it is not expedient, therefore, that the power which the guardians already possess of dismissing the subordinate officers should be further extended.

"*Superannuation of Paid Officers.*

"That it was shown to your Committee that inconvenience resulted from the continuance in office of persons who, by reason of infirmity of body or mind, had become incapable of efficiently discharging their duties, but whose removal had been postponed from personal considerations; and your Committee, therefore, recommend that a power should be conferred upon boards of guardians to provide at their discretion for the superannuation of certain union officers, the exercise of such power to be subject to the control of the central authority.

"*Copy of a Bill ordered by the House of Commons to be printed 8th June, 1864.*

"A BILL TO PROVIDE FOR SUPERANNUATION ALLOWANCES TO OFFICERS OF UNIONS AND PARISHES.

"Whereas it is expedient that provision should be made to enable superannuation allowances to be granted to officers of unions and parishes who become disabled by infirmity or age to discharge the duties of their offices: be it therefore enacted by the Queen's most excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

"1. That the guardians of any union or parish may, at their discretion, with the consent of the Poor-law Board, grant to any officer in their service who shall become incapable of discharging the duties of his office with efficiency by reason of permanent infirmity of mind or body, or of old age, upon his resigning or otherwise ceasing to hold his office, an annual allowance not exceeding in any case two-thirds of his then salary, whether computed according to a fixed sum or to a poundage, and shall charge such allowance to the same fund as that to which such salary would have been charged if he had continued in his office.

"2. This allowance shall be payable to or in trust for such officer only, and shall not be assignable nor chargeable with his debts or other liabilities.

"3. No officer shall be entitled to such allowance on the ground of age who shall not have completed the full age of sixty years, and shall not have served as an officer of some union or parish for twenty years at the least.

"4. No grant shall be made without one month's previous notice, to be specially given in writing to every guardian of the union or parish of the proposal to make such grant and the time when it shall be brought forward.

"5. The words herein used shall be interpreted in the manner prescribed by the statute of the fourth and fifth years of William the Fourth, Chapter Seventy-six, and the subsequent Acts amending or explaining the same."

COMMUNICATIONS have been received from—

Dr. WALTER KELLY; A COUNTRY SURGEON; UNITED KINGDOM ALLIANCE; THE SECRETARY OF THE WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON; J. F.; The Rev. HENRY BROMFIELD; ROYAL INSTITUTION OF GREAT BRITAIN; APOTHECARIES' HALL; Mr. RICHARD GRIFFIN; Dr. JOHN COGHLAN; Messrs. GILBEY; Mr. A. W. MOORE; Mr. J. JONES; Mr. JOHN PATTERSON; THE SUB-DEAN KING'S COLLEGE, LONDON; THE SECRETARY NATIONAL ASSOCIATION FOR THE PROMOTION OF SOCIAL SCIENCE; Dr. ROBERT FOWLER.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 2, 1864.

BIRTHS.

Births of Boys, 1051; Girls, 948; Total, 1999.
Average of 10 corresponding weeks, 1854-63, 1763·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	663	634	1297
Average of the ten years 1854-63	599·1	530·1	1129·2
Average corrected to increased population..	..	..	1242
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	1	5	8	5	8	6	10
North ..	618,210	1	12	11	2	6	13	24
Central ..	378,058	1	15	8	2	2	9	12
East ..	571,158	2	43	8	1	5	11	17
South ..	773,175	3	6	19	5	12	27	8
Total ..	2,803,989	8	81	54	15	33	66	71

APPOINTMENTS FOR THE WEEK.

July 9. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m Royal Free Hospital, 1½ p.m.

11. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

12. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

13. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.

14. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

15. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

LECTURES ON THE PROGRESS OF SURGERY DURING THE PRESENT CENTURY.

DELIVERED AT

The Royal College of Surgeons,

By Professor FERGUSSON.

LECTURE VI.—FRIDAY, JUNE 17, 1864.

MR. PRESIDENT AND GENTLEMEN,—In my last address I introduced the subject of excision of the knee-joint, and sketched out a brief history of the operation, and in the latter part of the lecture referred to what had been done by Surgeons in recent times with regard to it. Towards the close of the lecture I just stated that at the period referred to it was attracting the attention of others than those whom I had already named, many of whom happen to have been my personal pupils, and these gentlemen had taken both a practical and theoretical review. In particular, Dr. Humphry, of Cambridge, and Mr. Pemberton, of Birmingham, drew attention to the fact, seemingly new to both, that after excision in persons under full size the limb did not grow in proportion to the other. Not only was the limb shortened by the length of the ends that had been removed, but actually, as was clearly pointed out in certain cases which had been carefully watched, the limb all but ceased to grow, and was outstripped by its fellow some five or nine inches.

This is hardly the time or place to discuss the merits or questionable points of Dr. Humphry's clever, ingenious, and admirable papers on the growth of bones in their long axis and their epiphysial cartilages. I mean, therefore, to allude to them briefly. They seem to have been suggested largely, if not chiefly, by excision of the knee; and their main object appears to be that of pointing out generally that long bones grow in length entirely at the cartilages, at the end of the bone next to the epiphysis, and particularly that a femur grows in length chiefly at its lower end, where it joins or is joined by the epiphysis. The practical deduction from this is, that if in a resection of the knee in a growing subject the epiphysis and epiphysial cartilages be cut away, the femur will not grow in proportion to the rest of the body, and hence a serious objection has been raised to the operation in early years.

This matter was first hinted at by Dr. Humphry's paper, read before the Medical and Chirurgical Society in March, 1858, and was more elaborately worked out in subsequent papers laid before the same Society in 1861 and 1862. The same author has alluded to the subject in his valuable "Treatise on the Human Skeleton," published in 1858, and he there comes to the conclusion that in such instances where the tibia and femur might unite by ossific junction the objection urged against the operation might prove valid.

The union of physiology, science, and practice here has given remarkable force to the observations of Dr. Humphry. But attention was still more prominently brought upon this subject by a remarkable paper published by Mr. Oliver Pemberton, of Birmingham, in the *British Medical Journal* for 1859. The main object of this paper was to show that on a youth operated upon for excision of the knee in 1854, the limb in 1859 was nine inches shorter than its fellow. Another analogous case is cited from the practice of Dr. Keith, of Aberdeen, where, in the course of nearly six years, the deficiency of growth is measured by five inches. To add to this objectionable feature in Mr. Pemberton's case, there was no bony union; and in Keith's case, at the end of the time referred to the union was not strong, and there was a tendency outwards.

But the true parallel, the true value of excision of the knee, has never yet been drawn to its full extent, in as far as I am aware. Life and comfort may be considered as the highest and best results of Surgical interference in a case of incurable disease of the knee. Even yet we have not sufficient data on these heads. My impression is, that the question of life between amputation and excision will be pretty nearly balanced; indeed, I shall venture a step further, and say, that if excision were to get all the subsequent advantages willingly given to amputation, the hazard of life of one operation would be less than that of the other.

If I am not mistaken, an idea prevails that excision of the elbow is in reality a safer operation than amputation in the arm. But such is not my experience. Few fatal cases of this excision have been recorded; but I have seen as many as to convince me that the mortality is probably as great as that of amputation above the elbow. Happily such a result is rare in either instance.

Whatever the mode of operation, it must be acknowledged that neither skill, forethought, manipulative perfection, nor after-treatment, whether local or constitutional, can invariably avert some of the evils less than death, which are known from ample experience to follow such an operation. The occasional evils of secondary hæmorrhage, of unusual retraction, of scanty covering, of chronic sores therefrom, of caries, or necrosis, of tender cicatrix, of neuroma on the great nerves, and of secondary operative interference, have all been in a manner ignored in this comparison; and yet how often have all men of experience seen cases of the kind! Neuroma is certainly rare in the lower limb; yet, allowing the most perfect result—allowing the stump to be above criticism—what is it, after all? It is only a portion of the thigh, whereon to fix an artificial limb. If this cannot be done, the sufferer must ever after be dependent on crutch and stick.

I beg it to be observed that I do not bring forward these features as objections to amputation in the thigh in cases where the operation may be deemed absolutely necessary. If that dire proceeding must be, patients must take their chance. Surgery can never entirely avert the occasional necessity for amputation; but, in the case of which I now speak, I maintain that she frequently can.

And now let us see the case of excision. The foot and leg are left; the limb is shortened, possibly, by the length of bones taken away, say from two inches to four. Allowing for the loss of growth in length before operation, and for arrest of growth after operation, say five inches, say nine inches,—allowing even more—the lower end of the thigh, the leg, ankle, and foot still remain. It is worthless in Surgery to compare a bad stump with a bad lower limb after excision. Take the perfection of a stump even in the estimation of the most critical, and compare it with even a medium limb after excision, and the comparison will not stand for one instant. With the best results, it seems absolutely absurd to compare the two.

In the general comparisons hitherto made, I take leave to set aside the evils of excision, as drawn or indicated by the authorities already named, as exceptions to the rule, and as being equal in most respects with those following amputation. But I say unhesitatingly that if the comparison is drawn between the perfect stump and the perfect result of excision, the comparison is just as unreasonable as between an artificial limb and one of flesh and blood. Inequality in the length of the upper extremities is of little moment, but it is awkward, to say the least of it, in the lower, as we certainly observe after fractures and after disease of the hip or knee in early life. Such inequalities may, in some instances, be attributed to bad treatment, but it often occurs, despite the best skill in Surgery; yet who would in such result say that the patient would have been better with the limb away by amputation? Who does not think that when a person gets well of a diseased hip or knee, with shortening even to the extent of five or nine inches,—no uncommon result—he is yet somewhat fortunate in not having amputation performed in his thigh? We do see occasionally cases of great distortion of the lower limbs after disease of the knee, but even these patients sometimes congratulate themselves on having the leg and foot. In some few such cases amputation in the thigh has been performed years after the so-called cure; yet in such cases it is not our custom to lay blame on the treatment that may have been adopted, although I believe it has often been highly defective. Whatever the amount of distortion after the cessation of disease in the knee-joint, I hold, excepting in very special cases, amputation is unjustifiable, as resection of the distorted knee is both safer and better.

But I shall not press this point at present; let me rather again draw attention to the fact that we never cry out against either Nature or the Surgeon in cases of shortening and distortion of limbs after disease. Yet such effects are common. Whilst meditating these remarks, I have rarely known a day pass in taking one's ordinary rounds that I have not observed persons with shortened and distorted limbs after disease of the knee. Most of these have moved more nimbly and with greater apparent security and comfort than if on an artificial

limb after amputation of the thigh. Yet shortening has, in a manner, become the bugbear of excision of the knee. I admit that it is a defect, but abstraction or excision and arrest of development are evils elsewhere as well as here. Again, I admit that in this locality disparity of size, particularly of length, is an awkward circumstance. Let us, see, however, in what this consists. A difference of three, five, seven, or nine inches. What is the contrast which has been drawn with this defective limb? It is with its neighbour. And here, I imagine, we hit upon the weakest of all the objections hitherto made to excision of the knee. The risk of loss of life, distortion, uselessness of that which is preserved, are all serious objections or blemishes to this proceeding. A short leg to a long one is, I admit, a defect; but in this respect Surgery no more fails than Nature does after diseases. She leaves one leg shorter than the other. What, I ask, is the alternative for excision of the knee proposed by those who object to this operation? It is amputation in the thigh. I cannot allow that which might be an easy answer to the question—"Why perform an operation at all? why not cure the disease, and thereby avoid amputation?" That is a question of a totally different kind. I am not now discussing the question of amputation or continued and possibly other treatment to save the limb. It is the question between excision and amputation, as regards the future condition of the limb. In ordinary amputation under such circumstances half the thigh, or possibly two-thirds, may be left. The body is mutilated to nearly the entire extent of an extremity. Say what you may as to the quality of the stump, there is left a shortened femur, a shrivelled thing, emphatically a stump. Even Samuel Johnson's explanation of the term gives an exalted idea of the noun substantive, "The part of any solid body remaining after the rest is taken away," is a flattering description of one of our stumps of the thigh. It is in reality what is barely more than a peg whereon to hang an artificial limb. In youth, in middle age, in advanced years, it never improves; it never can be more than a shortened bone with shortened and shrivelled materials around it, and this even with the perfection of a stump. The defective results of excision I am disposed, in accordance with what I have said before, to class with defective stumps.

In justice to the subject I now deal with, I take a fairly perfect result of excision. Whatever the shortness, that may readily be made up by a high-soled boot or shoe. There are left the lower end of the thigh, nearly the whole leg, the ankle and foot, the former two slightly damaged, the latter unscathed. The foot, leg, and thigh do as much as in the cases of distortion or shortening after disease, and who under such circumstances would compare an artificial substitute to the limb or life?

But I cannot leave the argument here. A well-healed stump never in reality improves, unless, possibly, it gets somewhat more callous, whilst within it gets more tender and irritable. But the seeming perfect result of excision at the end of six or twelve months, just when stumps are generally at the best, is no criterion of true perfection. If the limb is properly managed afterwards, it goes on improving for months, ay, for years.

Without discussing the question as to the length, and without applying the remark at all, I can affirm from ample experience in my own practice that thigh, leg, and foot enlarge in bulk, and in particular that with this change the leg and foot improve in muscular energy. It may to some be more impressive when I say that the calf of the leg shows again an increased muscularity and vigour. This observation has never yet, I believe, been dwelt upon by those who have written of the good quality of limbs after excision; but it is an important fact, and one which in my own opinion goes far to balance that of shortening, which has been so eagerly put forward by writers previously referred to.

I do not think that the value of the human foot has been sufficiently estimated by those who amputate, or even by some who advocate excision. It is certainly as wonderful in its mechanism (if not more so) as any of the organs of special sense, and, without drawing a useless comparison between it and the hand, it is certainly in its entire state a thousand times more perfect as part of the future support of the body than the point of a thick stick or any fabricated imitation of a foot. We see persons walk about with limbs shortened from various causes—some with high-heeled boots, some with apparatus of iron, some with a pin of wood to make up the proper length, each with a foot of tolerable dimensions and vigour. Whatever we may save to grace or symmetry in these cases, we might under ordinary circumstances consider that a fair compromise has been made with formidable disease; even as an unfortunate maimed one who has suffered amputation in the thigh halts along we may pity him as the victim of incurable disease, yet we claim his case as a bright illustration of the powers of Surgery. The foot is rarely in such instances thought of, whether it has been swept away by amputation or it be a portion of a shortened distorted limb, yet I doubt if there is any substitute at all to be compared with it.

Time will not permit me to draw extended comparisons, and to illustrate the play of the foot; but for a forcible example I beg attention to this skeleton of Hervio Nano or Harvey Leech, in the museum of University College, for a sketch of which I am indebted to the courteous permission of the authorities of the institution, which shows the bones of the head, chest, and upper extremities of remarkable development. The pelvis is comparatively weak, and the femur in each limb is scarcely—perhaps not—to be recognised. The right tibia and foot are very defective, but the left leg and foot are better developed, although far from being in due proportions to the trunk above. Although the feet are defective—perfectly the right one—I call special notice to the fact that they were in life possessed of the most wonderful energy and agility. Leech was one of the most remarkable gymnasts of his day. Notwithstanding the distortion of his lower limbs, he had marvellous power in his feet. As an arena horseman he was scarcely excelled, whether in sitting or standing. He walked and even ran fairly, and his powers of leaping, partly from his hands, partly from his feet, were unusual; yet his lower limbs were so short that as he stood erect on the floor he could touch it with his fingers. This man earned his livelihood as much by the energy of his lower limbs as his upper, yet, as you perceive, both from the figure and from the skeleton, that energy must have been almost wholly in the femur—in the lower limbs. The length of the lower limbs in the skeleton is, from tip to heel on the right side, nine inches, and between the same points on the left about sixteen inches, showing a disparity of seven inches between the two. I think it particularly worthy of remark that the femur seems entirely wanting on both sides, a fact of particular interest to me, as I have dealt so freely with the bone at both its extremities. On the left side there are only three bits of bone, making but two inches in length, and on the right there is only one portion, about the size of a chestnut. It may be observed that whilst the tibia on the left side seems nearly normal in proportion to the rest of the skeleton, the right is three inches, and more like an os innominatum than a human tibia. Yet, with all these defects and peculiarities, the energies of the possessor were remarkable. His power in these limbs was chiefly in the feet, and without these members he would have been incapable of those efforts which struck thousands with amazement; but if one of his feet had been wanting, he could not possibly have done what he did. One foot added to the vigour of the other, and each was in that degree of perfection as to enable its master to do such things as people with limbs of ordinary mould usually dared not attempt. Surely he will be a sceptic, indeed, who does not allow that in this instance the foot was the grand feature in the lower limbs, and my object in bringing the illustration forward on such an occasion as this is to show the importance of this organ in regard to its functions of bearing the weight of the body above. Look at those who walk with limbs distorted and shortened from former disease of knee or hip who bear upon a support three, six, nine, or twelve inches long, and get on well, too, and think what their power of progression might be if without a foot. No doubt some with stumps in the thigh have walked marvellously well. I have known one in this predicament walk ninety miles in two consecutive days, but these are exceptions to the rule, and they present the very best examples of stumps.

Now the object of these remarks is to draw attention to the value of the foot where it comes directly in contact with the ground, or is the point of attachment with something to make up the proper length of the limb on that side.

In an anchylosed knee the foot is of great importance in progression. Besides the mechanical construction of the foot, its comparative size is of enormous value as a support, and what tissue of a stump in the thigh can compare with of the sole and heel of the perfect foot?

But I feel almost ashamed to carry this argument farther. Persons out of our Profession would think it strange to hear an argument in the College of Surgeons to show that the possession of a healthy foot is better than the absence of the foot; that a foot, leg, and lower third of the thigh all free from

disease, are better than nine inches of a shrivelled thigh; that nearly a whole leg, two feet or two feet and a half in length, is better than a shortened and shrivelled thigh which measures some nine or twelve inches from the hip. Yet such is the seeming argument to which I have been forced, for those who have opposed the operation of excision of the knee have almost invariably represented a good stump, as it is called, as superior to any limb preserved by such a proceeding. My own impression, however, is very different. I cannot say of a single instance coming under my own observation that amputation would have been better. I am not here to say that excision must invariably be superior to amputation, but this I will say without hesitation, that, however short the limb may be after this operation, the parts preserved, provided the original disease is cured and no great or special distortion be left, must be beyond measure superior to the best stump that can be made. I care not whether the limb be five inches or nine inches shorter than the other, my impression is that where the femur is so much diminished in length by cutting and by want of development in length, that the foot on the damaged side should be actually above the level of the sound knee; its presence would insure a better support than the stump of the thigh. I thus admit and take what may be comsidered an extreme case, such as has never yet been brought forward, and such as is likely to occur rarely, if ever. I do so to meet the exigencies raised by Messrs. Pemberton and Humphry, and particularly to meet the all-important question as to the propriety of performing this operation on young persons in whom the bones have not attained the full length.

The reasoning, if such it can be called, on this question has been remarkable. It amounts to this, that as the limb does not grow after the operation in young persons in proportion to the rest of the body, particularly in proportion to the other limb, it should not be performed, for this want of growth, great or small, is an insurmountable objection. Yet, as I have shown, the shortening is likely to be as great after a tedious recovery extending over years from disease of the knee in early life. For example, look at this leg that I now hold, and compare it with the other—these shrivelled parts—that shrivelled foot and calf. I beg of you to observe these are not the results of excisions; they are the results of disease—the want of development produced by disease which has too often been put to excision as being the true cause. But that is, indeed, a favourable acceptation I have referred to of this objection, and, to say the truth, it is not the view taken by those to whom I refer, nor is it the view which I myself admit for a moment. The question is not in such cases between excision and the cure of the disease; it is between excision and amputation.

I take it for granted that with few exceptions, some of which I shall allude to ere long, excision has been performed only in instances where amputation would otherwise have been the operation—instances where further attempts at cure were deemed likely to be useless. That amputation under such circumstances has been a common practice, in fact, the rule of practice, every one who remembers what Surgery was thirty years ago must admit. Now, it is in such cases that some opponents of excision of the knee have said that it cannot be done—that it must not be, because the limb does not grow afterwards; or, as one gentleman has actually gone the length of stating, because it grows shorter. Mr. Edwards and others who have had experience in these cases have shown by their writings that the limb *does* grow in length after the operation. There may be exceptions to this rule. I can testify to some from my own personal experience. I admit, however, that in some cases it may be less than in others; but I maintain that, however little, the preserved part of the limb must always be better than none. The leg and foot must always be better than any artificial substitute.

The case related by Mr. Pemberton on which so much stress has been put, and which in as far as I can perceive has been held as the grand bugbear against this operation, was by himself and colleagues condemned to amputation. With wise consideration, however, he submitted to excision. Without following all the interesting particulars of this case, I deem it sufficient for my present purposes to give Mr. Pemberton's own description of the state of the limb some six years afterwards:—"About the excised joints the parts were sound and free from pain on manipulation, a very moveable ligamentous or fibrous medium connecting the articular extremities. Notwithstanding the shortness and the flail-like joint, it was astonishing to see the power he possessed of extending the leg and of bearing the entire weight of the body on it in walking unaided by support of any kind, and it was quite clear that the disparity in length alone prevented him from realising all the advantages that he might under other circumstances have obtained from the operation. With all these drawbacks, he works hard as a boat builder, the limb being aided by a cork sole of some six or seven inches in height and by a leather case at the knee. "No one would presume to call this limb equal to one untouched and from the hand of nature, but my own impression is that it is better than the best ever fabricated by the hand of man. There is no accounting for taste or even opinion, however, and here is what Mr. Pemberton thinks:—"The limb cannot be deemed otherwise than an incumbrance, and with the best appliances to remedy the want of length proving after all little better than a sad deformity." Now the alternative in this case was a stump with a crutch or an artificial bandage. It *may* be a matter of taste among the victims of disease, and even among ourselves which would be the best. My own choice is strongly in favour of flesh and blood.

The features of hæmorrhage and of shock in this operation I think scarcely worth notice on such an occasion as this. In some few cases there has been trouble from oozing for hours after, and an articular artery has now and then given trouble. In one case I have seen the shock severe in a weak child, but, under any circumstances, I deem these matters of less mention than in amputation of the thigh. The main artery of the limb is untouched, and the worst form of secondary hæmorrhage can never occur. The want of bony anchylosis has been much referred to as a serious objection: I certainly think it best when it occurs, and it rarely does not if time be allowed, but even without it the results may be entirely satisfactory. You have heard what Mr. Pemberton thinks on the subject in his famous case,—"I think it but right to say that one of the best I have had was where bony union did not occur, and I have seen the person on whom Mr. Partridge operated under very disadvantageous circumstances, who nevertheless made a good recovery, and who, after anchylosis, can carry a bag of flour on his shoulders weighing 280 lbs., and can do readily the ordinary work of a journeyman baker."

In my own early aspirations regarding this operation I always kept amputation in reserve as the last resource, either at the time of the excision or weeks or months afterwards, but my views in this respect has been considerably modified. I prepared myself to meet with failures at every stage, and then, as I thought, the patient, if not slain outright, could but submit to amputation. Such a view as this was extensively acted upon by Dr. Humphry, for of thirteen cases amputation was performed in four instances, happily all recovering. But I have since altered my opinion considerably on this point, and now look upon amputation as a step rarely to be anticipated in such cases. I can conceive it possible that some necessity might arise at the moment of excision to resort to amputation. I have taken this step twice myself; but in instances where all does not go on well afterwards, instead of taking fright or losing heart at an early period, I ask for time; and when that does not suffice, I believe that dealing freely with the wound, opening sinuses, clearing away strumous *effete* material, picking away loose, necrosed pieces of bone, gouging away bare material of the kind, ay, even opening up the old surfaces and sawing off fresh pieces of bone, would be better than amputation. To do all this, particularly to repeat excision, to perform resection, as it may with propriety be called, seems an admission of failure, but it is no more than having to repeat an original amputation of the thigh, as has been frequently done. The results are, or may be, very different, however, for there is still the limb left to compare with the abbreviated stump.

There is more, however, in these words than may appear, for I do not speak from theory, but from actual experience. In October, 1862, Jane B. came under my care in King's College Hospital to have her limb removed after unsuccessful excision of the knee. There was no ossific union, and a considerable portion of the lower end of the femur protruded through a large opening in front of what remained of the original knee. Bearing in mind what I had occasionally done in cases of unsatisfactory results of excision of the elbow, I opened up the parts, took away the projecting portion of bone, trimmed here and there, and ultimately succeeded in getting a sound cicatrix,—a perfect anchylosis—a limb so strong that the patient was delighted with it, although when she came to town, and for months after the second conservative operation, she was anxious that amputation should be performed. I have heard from this girl since, stating that she uses the limb with

the greatest imaginable ingenuity and comfort in all respects. I have since repeated more operations with the most satisfactory result; and, as a general practice, I decidedly recommend the plan in preference to amputation as the secondary alternative.

In many instances of so-called cure of disease of the knee the limb is left shortened, bent, flaccid, useless, and the body is borne on a crutch. In all such cases when the usual modern means of extension have proved of no avail, Surgery has heretofore held out no alternative between a crutch and amputation. Where patients are discontented, where amputation has often been requested and frequently been performed to give riddance from a useless member, I can testify from experience to the excellent results of removal by excision of the stiffened or anchylosed articular ends of the bone, and when the limb has been stretched, and treatment like that for compound fracture has been adopted, union, even anchylosed, has taken place, with the limb in a proper line, and a comparatively useful member has been the result. This proceeding emanated from excision under the ordinary circumstances of disease. It was a bolder idea than that of Mr. Burton, who recommended a wedge-shaped piece of the head of the tibia to be removed in certain cases of bend with anchylosis, after disease of the knee, and it was carried out for the first time, I believe, by Mr. Price, whose enthusiasm was equal to, if not greater than my own in regard to all pertaining to this operation. The patient unfortunately died from inflammation of the chest, induced probably by the operation, but I have had repeated experience since to prove that such a proceeding is preferable to the so-called complacent or expedient operation of amputation where a person is tired of carrying about a useless appendage, of no value to the owner, and of no credit to the art or science of Surgery. I have here a fair example of the kind. A lad carried a limb bent at right angles, and walked laboriously on crutches. Excision was performed. Things did not go on as well as I expected. Twice afterwards I had to renew the excision and saw fresh surfaces on the bone. About twelve months afterwards he left the Hospital with a loose, dangling leg, but by-and-by anchylosis set in, and I show you here the preserved limb. Contrast the two as you choose. It certainly cannot stand comparison with the other limb, but it contrasts favourably with such distortions as were presented before, and, as a proof of its vigour, the youth recently walked twelve miles to see the Derby run. In a race himself he would no doubt be an outsider, but the leg is better in my opinion than a crutch. I have here the cast of another example, very analogous to it, which was treated in the same way. This boy had a useless limb distorted from disease, and here is the leg after operation. People admire the leg of the Apollo Belvidere. If you had not the opposite one to look at in this boy, you would be disposed to say that this limb had some resemblance to that celebrated leg.

But I have already dwelt longer on this subject than pressing present time warns me I should have done, and the hour tells me that I must give up. There are still many matters associated with it which I should refer to, and possibly I may take another opportunity to aid in bringing out all that I consider important with regard to the great Surgical questions to which I have directed attention in these two lectures. The question has now been so extensively and so thoroughly handled by the different authorities whom I quoted that I cannot pretend to much novelty in my dealing with it. If I can estimate my own attempt rightly, it has been to show the superiority of a leg and foot of flesh and blood to an artificial substitute of a foot and leg, whatever the shortening, whatever the want of development—to a stump of a third, one-half, or even two-thirds of the length of the thigh. I may say, Sir, in well-known language, "Look upon this picture and upon this" [pointing to two models], and I ask your verdict.

Sir and Gentlemen, I beg to offer you my sincere thanks for the careful consideration which you seem to have given to these humble efforts of mine to do my duty in this chair.

THE PROBABLE VACANCY IN THE PROFESSORSHIP OF SURGERY AT GLASGOW.—We hear that Dr. George Buchanan is among the candidates for the chair of Surgery at Glasgow, which will probably be vacated by the appointment of Mr. Lister to the chair left vacant by the death of Professor Miller, at Edinburgh. Dr. Buchanan has a high reputation as an Anatomist and Surgeon.

ORIGINAL COMMUNICATIONS.

CASE OF

LARGE FATTY TUMOUR REMOVED FROM THE BUTTOCK.

By B. BARROW, F.R.C.S.,
Surgeon to the Isle of Wight Royal Infirmary.

THIS case is one of those on which a question might be raised as to the propriety of the operation, not in the primary state of the growth, but at the period at which the operation was performed. I raise the question thus in the first place, so that no surprise may be expressed at its being undertaken or at the result.

At the time of the operation the patient was, as she had been for many days previously, anæmic, with a very small but regular pulse, a failing appetite, an irritable stomach, unable to bear tonics of any description, and stimulants only in the minutest quantities.

No condition could, therefore, be less favourable for any Surgical proceeding, much less so for the removal of a tumour of such size that before the operation it measured thirty-six inches in circumference and twenty-two inches on its greatest diameter, that is to say, from the spine, where it commenced, to the thigh, where it terminated, the skin being greatly stretched and thinned as it extended between these parts, and the weight of the tumour being not less than 30 lbs. Why, then, with these most unfavourable symptoms before me was the operation performed? On account of the earnest solicitations of the patient herself; her extreme sufferings, which prevented rest and sleep, the pain being at this time not so much in the tumour itself, but from pressure on the opposite side; the power of laying on any other than the left side being impossible, and the trouble being much increased by the inability to defecate without her being put in the upright position. Why was not the operation performed earlier? The patient only came under my care sixteen months ago, and I then strongly urged her to submit to the removal, observing "that I felt sure the time would come when she would be anxious for me to remove the tumour, and when in all probability her strength would be failing and her health so much shattered that the operation would then be attended by risks which did not at the moment exist." At the time I first saw the tumour its size was certainly one-third less than that finally attained, its character was not difficult of diagnosis, its situation involved no vital parts, and its attachment was not supposed to be deeply seated.

History.—E. H., aged 52; appearance healthy; pulse good; appetite fair; was able to sit up, and walk about with the aid of a stick, and had been accustomed to go out of doors in a wheel-chair, and which she continued to do up to six months ago. The tumour was situated on the right buttock, involving its whole surface. It had been first observed by the patient herself about six years previously, being then, as she described it, as large as a walnut, soft, and painful when pressed. She was not aware of having struck or otherwise injured the part. The swelling increased slowly for a time, until it had assumed, after the lapse of two or three years, those dimensions which impeded progression and altered the figure materially. Advice was now for the first time obtained, but no operative measures adopted. The local application of belladonna was tried, but caused so much irritation of the skin that it was soon abandoned and all further treatment ignored. The swelling increased in size as well as in painfulness, the power of progression and of movement became more and more difficult and at length altogether impeded, until the patient passed into the condition existing at the time of the operation.

The shape of the tumour *in situ* described pretty nearly the half of a circle, the longest diameter being from side to side. There was an elastic feel over the entire mass, and in places a sensation, on tapping the surface, as of fluid. A day or two before the operation I introduced a trochar, but no fluid escaped. A slough now seen on the tumour involved the upper surface, and first commenced after a most violent and painful attack of local inflammation three months ago. The skin on the upper surface became gradually more and more thin, whilst that beneath and most depending became œdematous.

The operation was performed on Thursday, March 24, 1864. The patient having inhaled chloroform, a semi-circular incision

of ten or twelve inches in length was made through the skin on the upper surface, and with the fingers of the left hand I then separated the tumour almost entirely, the mass shelling out with little difficulty, the under flap of skin being cut away as far as necessary. The loss of blood did not exceed six ounces, two ounces of which might have been arterial from some three or four small vessels which were tied. Some quantity of watery fluid escaped from the skin and tumour during the operation, which occupied about five minutes. The upper border of glutœus maximus was exposed—the surface of the wound in every respect presenting a healthy and natural appearance.

The edges of the flaps of skin were brought together by wire sutures, and in five minutes the patient had recovered consciousness, but rapidly sinking, died twenty-four hours after the operation.

The vomiting which came on and continued more or less violently until death, in her feeble condition, contributed chiefly to the fatal issue.

The tumour was found to consist of a very large amount of firm fat, mixed with an unusual quantity of areolar tissue. In bulk it is one of the largest growths ever removed by operation during life.

A CASE OF CYSTIN-CALCULUS.

By Dr. WARNCKE.

Reprinted from the *Hospitals-Tidende.*

Translated from the original by WILLIAM DANIEL MOORE, M.D. Dub., M.R.I.A., Honorary Fellow of the Swedish Society of Physicians, of the Norwegian Medical Society, and of the Royal Medical Society of Copenhagen.

THE urine of a boy aged 8 years was sent to me for examination from the Surgical division of Frederiks Hospital. It was dark-coloured and turbid, and on standing deposited a thick, white mucous sediment. The supernatant tolerably clear fluid was neutral, contained a small quantity of albumen and some phosphates; the amount of uroxanthin was not increased. The precipitate consisted of mucus, pus, some crystals of ammoniaco-magnesian phosphate, and of a large quantity of distinctly developed crystals of cystin. As the latter have hitherto never been found in the urine, except as a result of a formation of calculus, I assumed that in this case also a cystin-calculus was present, and, as the signs of renal affection, including an increased amount of uroxanthin, were wanting, while pus, mucus, crystals of phosphate of magnesia, that is, evident symptoms of an affection of the bladder, were present, I considered it most probable that this calculus had its seat in the bladder. Surgical examination proved the correctness of this assumption, and the stone, which lay in a pouch, was extracted by lithotomy by Professor Buntzen.

The stone, which is now preserved in the anatomico-pathological museum of the University, has the form and size of a small hen's egg, measures one inch and three-quarters in length, one inch and five lines in breadth, and weighed when taken out nearly 600 grains. It has an uneven, dull yellow-coloured, glistening surface, resembling candied fruit, the section is smooth, is very greasy to the feel, and is evidently laminated, differently coloured rings being distinguishable. It was tolerably hard, and was easily sawn through. Chemical examination of the sawdust showed that the concretion consisted exclusively of cystin. It was insoluble in water and in acetic acid, soluble in mineral acids and in ammonia, and from its solution crystallised in beautiful six-sided laminæ; on boiling with water of caustic potash, sulphuretted hydrogen was developed after the addition of an acid, colouring a piece of paper moistened with solution of acetate of lead, black.

Concretions of cystin occur very rarely; the museum has hitherto not possessed a specimen. They are found deposited both in the kidneys and in the bladder, and vary very much in size, from that of a hempseed to that of a small hen's egg; those hitherto described have never been formed in laminæ, but have had either a radiated section or have consisted of a conglomeration of a number of small crystals. Such concretions have, therefore, also been seen to pass spontaneously with the urine, the carbonate of ammonia developed by fermentation of the urine in the bladder pressing in between the several crystalline groups, causing them to separate from one another by its solvent action upon them. In general the concretions consist of cystin alone; sometimes a nucleus of uric acid has been met with; in rare cases the shell has contained ammoniaco-magnesian phosphate

Cystin is a very interesting chemical compound, whose formula is $C_6H_6N\,S_2O_4$; of all animal matters hitherto known it contains most sulphur; next to it comes taurin, with 25 per cent. of sulphur. There is, however, no ground for the assumption that cystin may be regarded as a product of the decomposition of taurin. Golding Bird connects the formation of cystin with the scrofulous diathesis, and thinks that it is a product of the abnormal metamorphosis which occurs in this morbid state. He gives a table, from which it would appear that cystin may be formed from the albuminous matters instead of urea and uric acid.

In reality, however, such a calculation is not of any great importance, the less so as practical observation by no means proves that such a diathesis is met with in the individuals who suffer from cystin calculus. Neither has any other known diathesis been shown to be the basis of the formation of such concretions. Cloëtta in one case found cystin in the fluid expressed from the kidneys.

As we do not know the cause of the formation of cystin, we cannot, of course, indicate any remedy to remove or prevent it. Bird recommends iodide of iron as an antiscrofulous medicine. On the other hand, as to the treatment of the concretions, we know that cystin is soluble in alkalies, and that, as has already been mentioned, the several groups of crystals separate under their influence, when the formation has not taken place in layers.

Under all circumstances we may, with the aid of alkalies, prevent the stone increasing in size. Cystin concretions, consisting throughout of conglomerated crystalline groups, are admirably adapted for crushing; if, on the contrary, the cystin is deposited in layers, as was the case in the instance above described, this operation is certainly not to be preferred.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

SAMARITAN HOSPITAL.

FOUR CASES OF OVARIOTOMY—THREE SUCCESSFUL.

(Under the care of Mr. SPENCER WELLS.)

Case 1.—*Multilocular Ovarian Cyst—Phthisis (?)—Ovariotomy—Recovery.*

A HOUSEMAID, unmarried, 23 years of age, was sent in March last by Dr. Mushet, of Norwood, to Mr. S. Wells, on account of an ovarian tumour which filled the abdomen up to within two inches of the ensiform cartilage. She was emaciated, had a hectic flush on the cheeks, night perspirations, and cold hands and feet. Pain in the right hypochondrium often disturbed her sleep. Dulness on percussion, increased vocal resonance, crepitation, and prolonged expiratory sounds led to fear as to the state of the apices of both lungs. The pulse was feeble, and the heart sounds normal but irregular. The urine contained albumen, but this was due to admixture with leucorrhœal discharge. For the last two months she had been obliged to empty the bladder every hour. The catamenia had always been scanty, and latterly very irregular. She had "seen nothing" for three months. The uterus was pushed backwards by a portion of the cyst distinctly felt between it and the bladder. The swelling had commenced in the left iliac region fifteen months before.

With a view of ascertaining how far the condition of the lungs depended upon the interference of the abdominal tumour with the respiratory movements, Mr. Wells tapped her, and removed twenty-six pints of ovarian fluid from a large cyst on April 13. This gave great relief, and she went on the 18th to the Convalescent Institution at Walton. She returned on May 13 in much better general health, was admitted on the 18th, and although the state of the lungs was not very satisfactory, ovariotomy was performed on May 23. Dr. Campbell, of Boston, United States, and Dr. Nicholson, of Antigua, were present. There were rather extensive adhesions all over the abdominal wall anteriorly, but they yielded easily, and the only peculiarity in the operation was the difficulty in dislodging the lower portion of the cyst from the pelvis. It was so tightly moulded or jammed down that it was quite immovable until Mr. Wells got his fingers between the tumour and the brim of the pelvis and dislodged it. It seemed as if

atmospheric pressure or a sort of suction had something to do with it, as the air was distinctly heard by all present to rush in as the tumour was loosened. The pedicle was kept outside by a clamp. The right ovary was healthy. The wound was closed by silk sutures.

There is nothing to record of the after progress, except that it gradually tended to recovery. The clamp was allowed to remain till it became loose, and it came away on June 7. She was discharged on the 25th in good health. Means have been taken to ascertain if pulmonary disease should progress or disappear.

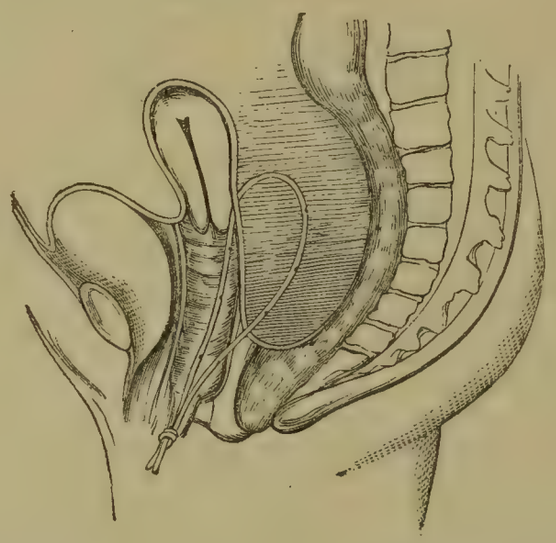
Case 2.—*Two Ovarian Tumours—Both Removed—Recovery.*

A married woman, 54 years of age, was sent to Mr. Wells in December, 1863, by Dr. Whitehead, of Manchester, on account of ovarian disease, and as there was no urgent symptom, it was arranged that she should wait. She returned to Manchester, and Dr. Whitehead wrote on the 7th April, 1864:—"I think the case favourable for ovariotomy. About six weeks ago I emptied the sac on the left side, and had reason to believe that the other sac is connected with the right ovary." On the 29th of April he wrote:—"The sac which I emptied is refilling. The uterus is central, freely moveable, no tumour on either side of it, but only a slight bulging, and that not lower than opposite the os internum." On the 2nd of May:—"I have examined again. The uterus is certainly a little on the left side, and there is a bulging from above on the right, but this is diminished by rolling the tumour." She was admitted to the Samaritan Hospital late in May, and ovariotomy was performed on the 2nd of June. Mr. Teale, of Leeds, and Dr. Aveling, of Sheffield, were present. Dr. Parson administered chloroform. By an incision four inches long, extending downwards from one inch below the umbilicus, a non-adherent cyst was exposed, tapped, emptied, and withdrawn. Its pedicle was secured by a clamp about three inches from the right side of the uterus, and the cyst cut away. A second cyst was then found on the left side, which was also tapped and emptied. Just as it was seized by the hooks on the canula, a knuckle of empty small intestine was caught by them, but it was instantly freed, and no ill-effect resulted. The pedicle of this second cyst was transfixed, tied with strong silk in two halves, and secured to the clamp on the other pedicle after the cyst was cut away. The wound was closed in the usual manner. Recovery was uninterrupted except by a superficial abscess, which formed beside the lower angle of the wound. The clamp was left till the 13th June, when it came away with the dressing and the ligature on the second pedicle. She was discharged in excellent health on the 23rd of June. The cicatrix measured less than three inches.

Examination of these two cysts by Dr. Woodham Webb and Dr. Ritchie led to a discovery of great pathological importance—namely, that ova were found in many of the Graafian vesicles observed in the walls of both tumours. Rokitansky once found an ovum in one Graafian vesicle in an ovarian tumour, but Dr. Webb demonstrated ova in a great many vesicles in each of these tumours. This, when the age of the patient is considered, is still more noteworthy.

Case 3.—*Adherent Ovarian Tumour—Ovariotomy—Pedicle Returned—Hæmatocele Treated by Drainage—Recovery.*

An unmarried girl, 18 years of age, was sent to Mr. Wells by Dr. Whitehead, of Manchester, as a favourable case for ovariotomy, and was admitted on the 5th of June, 1864. The disease dated from the commencement of the catamenia, five years before, and six months after a leg had been broken, as she was run over, when she was only 13. Increase had been rapid at first, but latterly slow. She had not been tapped. A point of great interest in diagnosis was observed in this case. The tumour was observed to move very freely beneath the abdominal parieties on deep inspiration, and Mr. Wells therefore expected to find a non-adherent tumour. But at the operation very firm adhesions had to be separated. They were, however, sufficiently long to admit of the cyst moving freely. Ovariotomy was performed on the 13th of June. Dr. Parson gave chloroform. On making an incision, four inches long, midway between the umbilicus and symphisis pubis, three small cysts filled with gritty matter were exposed in the cellular tissue between the sheath of the recti and the peritoneum. These were dissected out. Long and very firm adhesions anteriorly and in the right iliac fossa, and a very extensive surface of adherent omentum were separated by the hand with some difficulty, and a close adhesion to the fundus of the bladder was separated by very careful dissection. A small pedicle was secured close to the uterus by a silk ligature, which was cut off short and returned. There was very little bleeding, and the wound was closed in the usual manner. The stitches were removed forty-four hours after operation, the wound being perfectly united. On the third day after operation some sharp pain came on, which became easier after a uterine discharge like menstruation appeared. She continued doing well till the 22nd (ninth day), when, after a sleepless night from pain and flatulence, she was found in a state resembling typhus fever,—dry tongue, dilated pupils, flushed face, and drowsiness. As this condition became more decided in the afternoon, Mr. Wells examined by the vagina and rectum, and, detecting fluid between them, made a puncture by a trocar, and let out five ounces of dark bloody serum with a putrid ammoniacal odour. This was followed by some relief. The pulse sank from 112 to 95 and 92, but mucus diarrhœa came on, and the typhoid condition was aggravated next day. As the discharge from the trochar puncture had ceased, and examination detected fluid still in the recto-vaginal space, Mr. Wells made another opening into this space, evacuated ten ounces of fluid still more putrid than that of the day before, and containing pus. He then carried on the trochar through the opening made the day before, and drew a drainage-tube through the canula before withdrawing the latter. The tube was then tied and left fixed, as shown in the accompanying diagram.



Mr. Wells took great care that it should pass through the lowest point where the peritoneum is reflected from the rectum to the vagina. Very free discharge came through the tube for several days, and the general condition rapidly improved. The tongue and mouth were covered with aphthous spots for several days, and diarrhœa was troublesome. But the tube was removed on July 1, and convalescence was rapid. She was sitting up on the 6th, and was to leave for the country on the 14th.

In some remarks made at the bedside upon the removal of collections of serum, blood, or pus from the most depending portion of the peritoneal cavity by vaginal puncture, and upon tapping ovarian cysts and pelvic abscesses through the vagina, Mr. Wells said that the result of his experience was that the danger of puncture had been very greatly exaggerated; that the benefit of the evacuation of fluid was often very marked; and that any danger arose from too early closing of the opening, not from the opening having been made. Where, in cases of blood-poisoning, it was very important to maintain a free passage for putrid fluids, the drainage tubes of Chassaignac rendered most valuable service.

Case. 4.—*Ovariotomy—Pedicle Returned—Hæmorrhage—Fibrinous Deposits in Heart and Pulmonary Artery—Death on the Fourth Day.*

A single household servant, 24 years of age, applied to Mr. Wells, a few days after her dismissal as incurable from a large Hospital, and was admitted to the Samaritan Hospital on June 13. The whole abdomen was filled by a multilocular ovarian cyst, free from adhesions anteriorly, and without any unusual pelvic attachments. The uterus was rather high, the fundus a little to right side, and cervix to left, but freely moveable. The catamenia had been regular till last September, when they ceased suddenly, and nothing had been seen since.

Four years ago she had a severe fall, and had been subject to pain in the right side ever since, but was otherwise in good health till two years ago. She then had a violent attack of pain in the left side and sickness, which was followed by swelling of the abdomen, the increase having been at first rapid, but slow of late. She had had frequent attacks of violent pain in the right side, and had become quite unable to earn a living. She had lost flesh, but was not emaciated. The complexion was dark red; the pulse small and feeble, but the heart, lungs, and kidneys appeared to be healthy. She was kept under observation for about three weeks, was well fed, and the body cleansed by repeated baths from *pediculi* with which it was infested; when feebleness of pulse being the only contra-indication, ovariotomy was performed on July 4. Drs. Riant and Worms, of Paris, and Dr. Beatty, of Dublin, were among the visitors. Dr. Parson administered chloroform with very great care, owing to the feebleness of the heart, and very little was taken, though vomiting occurred twice during the administration. The cyst, which was free from adhesions, was first exposed by an incision about four inches long below the umbilicus. It was then tapped, and twelve and a-half pints of dark fluid were evacuated. A large mass of secondary cysts and adneoid growths towards the right side then made it necessary to enlarge the incision until it extended from three inches above to five inches below the umbilicus. The tumour then came away entire, after separating two small pieces of adhering omentum, and a broad short pedicle was first secured by a clamp close to the right side of the uterus. After cutting away the tumour the pedicle was transfixed behind the clamp, tied with strong silk in two halves, and a circular ligature was then tied behind the point of transfixion. The ligatures were then cut off short, and the uterus allowed to sink into the pelvis. Two omental vessels were tied, the left ovary found to be healthy, and a sponge passed into the abdomen and pelvis having come away almost unsoiled, the wound was closed in the usual manner, and one small vessel in the abdominal wall was tied.

The patient went on badly from the first, the pulse scarcely ever being under 140, and sometimes rising to 168. She became very restless on recovering from the chloroform; complained of great pain in the back, and was very sick. Twenty drops of laudanum were injected three times into the rectum during the afternoon and evening, and she became easier, but complained of great oppression at the heart and faintness, and there was almost complete suppression of urine for twelve hours after operation. The day after she appeared rather better, but still complained of a very strange feeling about the cardiac region. The pulse was 160 all day; skin hot, and face flushed. On the next day there was a free oozing, partly of blood and partly of reddish serum, from the upper part of the wound. After this she felt easier, the urine became more copious, and she took some nourishment, though vomiting was still troublesome. In the evening diarrhœa came on, and some tympanites. On the third day (sixty-eight hours after operation) Mr. Wells removed all the sutures, as the wound seemed to be firmly united, and re-applied strapping. The pulse was then 168, and she complained of faintness and exhaustion. In the evening some bleeding came on from the lower part of the wound, and Dr. Parsons, finding it gaping, re-applied some of the sutures. She continued to sink all night, and died ninety-two hours after operation.

The body was examined seven hours after death by Dr. Barratt. He reported:—"Body warm; rigor mortis not fully established. Below the umbilicus an incision about eight inches long externally, probably an inch shorter on peritoneal surface. The sutures which were retained do not close the wound throughout, so that, at the central part, intestine can be seen clearly between edges; no union had taken place. An oval flap, laying bare the abdominal cavity, disclosed a general tympanitic state of stomach and intestine, except the transverse and descending colon, which were greatly contracted and empty, a diffused, dark, bloody discoloration of great omentum and surface of bowels; venous coagula and general infiltration around the right inguinal region. Seven ounces by weight of dark fluid blood were removed from the cavity of the pelvis, and in some of the more dependent parts of abdominal cavity there were small coagula. The right broad ligament of uterus had coagula adherent, and was reduced to a very short pedicle. The tumour must have been 'sessile' almost. The pedicle has two transfixing ligatures, which enclosed both the Fallopian tube and the round ligament; but a ligature, which had been passed behind them at the time of the operation, higher up, could not be found. It had evidently slipped off, and permitted oozing of blood from the spermatic veins. Some slight adhesions between neighbouring folds of intestine were just commencing, but no general or partial peritonitis. Iliac vessels intact; iliac veins containing fluid blood. Thorax.—Lungs very healthy. Heart natural size. Right ventricle relaxed. Valves very healthy. A tough, fibrinous clot, free from blood corpuscles, filled right ventricle, with tenaciously-interlaced roots amongst the corneæ columnæ, communicating by a small branch through the auriculo ventricular opening with a ball of fibrin in right auricle capped with black coagulum. The main stem of clot passed up into pulmonary artery, and there penetrated vessels to the second and third divisions, from which it could be drawn in threads. Left ventricle entirely empty, and contracted firmly. Left auricle contained a little fluid blood. Pericardium, a small quantity of serosity (one ounce)."

Dr. Barratt adds:—"This case suggests the inquiry as to the part the heart clots play in bringing on a dissolution. This was no case of metastatic deposit, or septicæmia from infectant fluids, neither was the clot a last link in the chain of events attendant on death with local stasis. It indicates a reduction of vitality of the general mass of the blood, either temporary or permanent, natural or induced; and, as a pure and uncomplicated case, illustrates the view that, in such cases, it is on *the right side* of the heart clots during life will be found to form, and that, in a word, *the right side dies first;* the impress of deterioration primarily falls there, and chemical changes there begin to develope. It is a matter of deep interest as a pathological inquiry in all operations, and it is also a problem yet to be solved, as to what are the *remote* as well as immediate consequences of chloroform under varying conditions of vitality that occur in different persons and habits."

Mr. Wells looked upon the case from the moment of the operation as one of clot in the heart. The very rapid, irregular pulse— the vibration rather than contraction of the heart—the absence of the usual sounds—the flushed face—the cold extremities—the laboured respiration—all pointed to the same conclusion. When the intra-peritoneal hæmorrhage took place is not very clear; but at any time it would have aggravated the consequences of the cardiac clot. A heart originally feeble, made still more so by nervous apprehension, subjected to the influence of chloroform, to the shock of a severe operation, and to the effect of repeated doses of opium, would certainly be in a very favourable condition for deposit to take place. The right auricle containing clot, the return of blood from the inferior cava would be impeded, the spermatic veins gorged, and the slipping of a ligature assisted. Or, supposing the ligature to have slipped early, the bleeding, though it was not to any great amount, would certainly have made the heart weaker and hastened the deposit of fibrin. On either hypothesis the practical lesson is not to be satisfied with any ligature upon a tissue so retractile as that of the pedicle of an ovarian tumour, unless it is prevented from slipping by transfixing the part to be secured. In this case the transfixed ligatures held firmly; but that which was passed behind them, and included another part of the pedicle—although it was tied very tightly—became useless. In a strong person this might only have led to retro-uterine hæmatocele; but here it became a link in the chain of events which ended in death.

These four cases make fifty-six in which Mr. Wells has performed ovariotomy in the Samaritan Hospital. The result has been thirty-nine recoveries and seventeen deaths. Since our last report, (page 587 of last volume), besides these four cases, he has also made a small incision in a case where, at a previous tapping, ovarian fluid was found free in the peritoneal cavity. The diagnosis was verified by the incision, and the patient returned to Tunbridge Wells a fortnight afterwards exactly as after an ordinary tapping.

Sir William Wilde.—This distinguished Surgeon has lately received an honorary Degree in Medicine from the University of Dublin.

Prevalence of Small-pox in Berlin.—If any city ought to expect to be secured against variola, that is Berlin, where so much care is taken with respect to vaccination. Still a severe epidemic has prevailed that during this summer, as many as 32 new cases being announced in one day, and new buildings having to be erected for the reception of the increasing numbers. During last year 1270 cases occurred, with 223 deaths, or 17 per cent. The mortality in the vaccinated was 10 per cent.; in the unvaccinated 42 per cent.

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Medical Times and Gazette.

SATURDAY, JULY 16.

SIMONY.

"O Simon Mago, o miseri seguaci
Chi le cose di Dio, che di bontate
Denno essere spose, voi rapaci
Per or e per argento adulterate."

We doubt if even the prolific imagination of Dante could have conceived of simony as a crime which should taint Medicine as it had tainted the Church. Yet there is no doubt about the fact. If rapacious prelates ever prostituted for silver and gold those gifts and offices which should be the spouses of piety, so have needy Medical corporations sold for money those Professional privileges and honours (if we may use so strong a term) which should be the appanage of learning.

We will not revive the accusations that used to be heaped upon certain Northern Universities in the last generation, for if they did sell their degrees, the offence was not frequent enough to be of much harm. Neither will we allude to the venal German Universities, about which our correspondents' columns teem with questions almost every week. The great offender, and the first whose transactions were on a scale large enough to awaken the cupidity of imitators, was the Royal College of Surgeons of England, with the sale (for such it was) of the Fellowship for ten guineas. The next great offender was the Royal College of Physicians of Edinburgh; but the offence of this distinguished body was in some measure redeemed by its grotesque absurdity. To persuade a body of educated and well-to-do English gentlemen to give ten guineas for a license of no legal force whatever—to do what they could do already by means of a legal license already in their possession—was a proceeding which scarcely can excite any warmer feeling than merriment, or that kind of commendation which was bestowed on the unjust steward. We fear that we must enumerate as the last offender on our list the Royal College of Physicians of London. This we regret; for to degrade that institution in the slightest degree is to wound the Profession in a vital point. Nevertheless, during that one year, call it of grace or disgrace, the distribution of honours and privileges by the College was such as could only be palliated by the fact that the circumstances were quite exceptional; that the affairs of the Profession were to be settled; and that the thing could never happen again. It was just like the return of the Stuarts or of the Bourbons, or like the politics of Canada. Persons who had defied the law successfully for years find themselves in power—the loyalists go to the wall. Physicians who had been practising in defiance of the law were presented with a license on easier terms than those who had been made to pay—who had obeyed because they considered it a matter of conscience to obey the law in trifles. But all that is now past and gone; for lo! are we not flourishing under the millennium? Is there not a General Medical Council? and is not the Profession now as united and harmonious and happy as a Medical Reform Act can make it?

Alas, a chronic grievance again comes to the surface—a grievance, we are bound to say, that is more conspicuous within the Profession than it is to outsiders. A Medical practitioner in good practice, whether in town or country, is honoured and trusted for his personal qualities, and the public don't care for his diploma. But the fact is, that the English practitioner, with an education higher than that of the average practitioner in any other part of the world, has an appellation which he does not like. He is an *Apothecary*,—a name which in all civilised countries save England is not the name of a scientific man, but of a tradesman. Besides, it is no longer a true appellation. The English practitioner no more deserves to be called Apothecary than the Surgeon does to be called a Barber, or the Physician a Leech. In no other country in the world would good metal receive such a base stamp. A man may strut about with the degree of M.D. from Universities we could name, whose diploma he could not translate, and may look down upon the English Apothecary, whose modest license has been earned at five times the amount of study and knowledge. This is a grievance, and is felt as such, wisely or not, by some amongst us. How is it to be remedied? How shall the General Practitioner obtain a designation more worthy of him?

Several schemes may be proposed, each open to serious difficulties. We fear it would be of little use to propose a new Institution—a College of General Practitioners; for the tendency of all modern movement is to efface a diversity of formal rank, and to make men look to the personal character more than to the diploma. It would be difficult to plead for an institution which should represent the General Practitioner as a distinct order, when the Society of Apothecaries is fast becoming a Society of Doctors in Medicine.

The title "Surgeon" is respectable, but insufficient. It does not represent more than a fraction of the ordinary duties of the Practitioner. The title of "General Practitioner in Medicine, Surgery, and Midwifery" is too long, and that of "Physician, Surgeon, and Accoucheur" seems true in itself, and coming into general use. We have practically come to a one faculty system as regards qualifications; and the only real distinction—that between "consulting" and "general" Practitioners—is one which exists as matter of fact, and is created by the customs and necessities of life, but rests on no special legal basis, except that bye-law of the Royal College of Physicians which prohibits the Fellows from suing for their fees.

The position we are in, then, at present is this: that all the apothecaries have the qualifications and perform the work of Physicians, and that many of them being Doctors of Medicine, or possessing a licence from some College, certainly are something above the apothecary, though they may not rank with the pure consulting Physician. Moreover, the Society of Apothecaries is no home to them; it is a corporation which gives them a *license*, but not of necessity its *membership*. They deserve to be called Physicians or Licentiates in Medicine, though not consulting Physicians.

It cannot be wondered at, then, that the educated apothecary should turn his eyes to the College of Physicians, and desire to obtain from that College something of recognition and authority. And the College meets them half-way; offers its license to any one who complies with its regulations, passes the examinations, and pays the fees.

The existence of these new Licentiates again creates uneasiness amongst some Practitioners who are a little their seniors. Galled by the want of an adequate Medical title, and finding it difficult or impossible to enter on a fresh course of study and pass a new examination, they desire to be received *ad eundem*—that is, to receive a license from the College of Physicians, on the strength of their existing qualifications, without fresh examination.

If the College of Physicians had come forward when every thing was in a chaotic state, three or four years ago, and had invited all existing General Practitioners to come and be registered as Licentiates on payment of a nominal fee, and had

boldly claimed the control and licensing of Medical Practitioners for the future, the thing would not have been enveloped in the difficulties that now surround it. The first to complain, and justly, would be the new Licentiates, who would see, as the first F.R.C.S. by examination saw, others coming in by a back door on easier terms than themselves.

At any rate, whatever is done should be universal, and on such terms as should clear it from the taint of simony. The College may come forward on public grounds, but must keep its hands clean. Perhaps the College might issue a sub-license or document recognising and sanctioning the existing rights of Practitioners for a small fee. But if anything like an extensive distribution of licenses with a heavy fee and without examination is to be attempted, we venture to think that the effects will be far other than appear at first sight. The value of all Medical diplomas (low enough at present) will sink like that of American greenbacks. Lawyers and men of the world now do not hesitate to express their contempt for the degree of M.D., which dignifies so many who have little depth of education; and in particular, the license of the Hall, instead of being extinguished, will be more valuable than ever as a passport to parochial and other offices; for it will not fail to be noticed that the Society of Apothecaries, although a trading body, is the only Medical Corporation that has never traded simoniacally in its own license.

THE WEEK.

A ROYAL RECOGNITION OF PROFESSIONAL SERVICES.

We are happy to announce that the King of the Belgians has just conferred the title of Surgeon Extraordinary to his Majesty, together with the Cross of the Order of Leopold, on Mr. Henry Thompson, as a recognition of the valuable Professional services rendered to his Majesty. More than twelve months have now elapsed since Mr. Thompson operated; no relapse has occurred, and the King is now in the enjoyment of excellent health.

THE LATE ELECTION AT THE ROYAL COLLEGE OF SURGEONS.

The result of the late election will take no one by surprise when the facts which we publish to-day in another column are known. Two hundred and eighty-six Fellows voted, and of these two hundred and twenty were residents in London. When we remember the powerful influence which the London Hospitals and schools exercise over the Profession in London, we are only surprised at the large number of independent votes recorded for Messrs. Gulliver and Turner. The fact that only sixty-eight provincial Fellows attended the election is, we assert, a strong argument for altering the mode of voting. If any body of men should be permitted to vote by proxy, it is one practising the Profession of Medicine. If, as has been justly observed, the members of a University like Oxford, who may belong to any or to no profession, are allowed to record their votes by proxy in returning a representative to Parliament, there surely is good ground for giving a like privilege to the Fellows of a College, whose avocation binds them to the bedside of the sick and dying, in an election to the Governing Body of their own Institution. The only objection which we have heard urged to the proposal is the very unjust and narrow one that the provincial Fellows are so numerous they would, if allowed to vote without being present, swamp the London interest. In the first place, we do not believe the argument to be valid. The great body of country Fellows have been educated in the London Hospitals and schools, and they would have pride and pleasure in giving their old teachers the influence they may justly claim in their common College. In the second place, supposing the allegation were true, all we can say is that in a scientific body where all possess the same qualification the greatest number should in justice carry the day. But it is idle to assert that there would be any real difference of opinion between the two sections as to the propriety of choosing a due number of councillors from the Surgeons of the great metropolitan Hospitals and schools. To the gentlemen who are the successful candidates we can have no possible objection, except the grave one that they belong to an interest which already has an overwhelming majority in the Council. It is stated that two of their number have pledged themselves to certain measures of reform, and we most gladly give them credit for all good intentions. We think them all personally most justly entitled to seats in the Council. But if the Court of Examiners is to be reformed, if its emoluments are to be reduced to a more moderate scale, if its members are to be elected annually, and its examinations are to be raised to a fitting standard, these changes must be the work of the whole body of fellows, acting through the Council, and not of a single section. The present system has been inaugurated and sustained by the teachers of London, and it is too much to believe that they will feel called on to alter a condition of things which has told so well on their own interests. Annual election into the Court of Examiners is the rule at the College of Physicians, at the Apothecaries' Hall, and at the College of Surgeons of Edinburgh. The Court of the College of Surgeons of England, the body which examines and passes a larger number of candidates than any other, is the only one of the great licensing bodies of Great Britain which is not subjected to the ordeal of an annual revision. The result of the present system may be found in the revelations of the Netley board.

ARMY MEDICAL DEPARTMENT.

We learn, from the pages of a contemporary, that a deputation, consisting of members of the Metropolitan branch of the British Medical Association, lately had an interview with Lord de Grey at the War Office, upon the state of the Army Medical Department, and that his lordship said, amongst other things, "that Medical officers had peculiar ability and skill in the matter of branding, and were the proper persons to do it." If there be no mistake here, it is one lamentable proof among many of the kind of estimation in which we are held by Government bodies. It is scarcely credible that a member of the Cabinet should have the temerity to inform some of the leading members of the Profession, and a Fellow of the Royal Society, that the pursuit of Medical science fits them for the performance of these degrading duties—duties which ally a Medical officer's functions with those of the hangman. For the last two or three years everything that official ingenuity could devise has been put in force to disgust the Medical officer and lower the Department in the eyes of the Profession. It is a little too much to expect that educated gentlemen will consent to occupy a false and inferior position, and to perform degrading duties, under a system of expatriation which amounts to transportation for life, for the pay and prospects offered by H.M.'s service.

PARLIAMENTARY.

In the House of Lords, on Thursday, July 7, the Factory Acts Extension Bill and the Lunacy (Scotland) Bill were read a second time.

In the House of Commons, the Poisoned Flesh Prohibition Bill was read a second time.

On Monday, July 2, in the House of Commons, in Committee of Supply, on the vote of £2206 to complete the sum required for the University of London,

Mr. Augustus Smith asked why the salary of the Registrar had been increased.

Major O'Reilly called attention to the insufficiency of the accommodation at present afforded to the University by the Government, and expressed a hope that more adequate provision would be made in future.

Mr. Ayrton trusted that the Government would not regard this merely as a question of providing a building in which the University might hold its examinations, but that they would take into consideration the larger question of placing the institution, which now lacked many of the attributes of a University, upon a broader foundation.

Sir H. Willoughby wished to know why the salary of the Registrar had been increased from £800 to £1000 a-year.

Mr. F. Peel said that when the University was first founded it was proposed that the salary of the Registrar should be £1000 a-year; but it was thought better in the first instance that a smaller salary should be given. The salary was accordingly fixed at £500, and was raised from time to time till it reached £800 last year. It has now been raised to the maximum £1000. Dr. Carpenter had held the office for a considerable time, and its duties having very greatly increased, it was thought he had a fair claim to the full salary originally intended to be given.

We are happy to record this public recognition of the services of Dr. Carpenter in his capacity of Registrar of the University. The public owe much to Dr. Carpenter, not only as an able and successful scientific worker, but as one whose whole life has been devoted to bringing the truths of natural science within the reach of all educated classes of the community.

The vote was agreed to.

The next vote was £19,704 for grants to Scottish Universities, which was agreed to.

The vote of £2462 for the Queen's University in Ireland was also agreed to.

On the vote of £5400 to the Queen's Colleges, Ireland,

Mr. Hennessy wished to know if the right hon. gentleman the Secretary for Ireland could throw any light on the fire at Queen's College, Cork.

Sir R. Peel was happy to state that the accusation and counter statement which had been made on this subject had been entirely cleared up. Dr. Bullen had written a most handsome apology. It was not necessary to go again into the matter, and he trusted it might be allowed to rest.

Mr. Hennessy had no doubt that this was rather a painful subject, but the facts were too remarkable to be altogether passed by. It had been supposed at one time that the College was set on fire by the Ultramontane party, but in all probability it was set on fire by some person residing within the walls. It was somewhat remarkable that all the investigations which had taken place were conducted with closed doors and reported to the Castle. He had heard this story, and he believed it to be correct, that about the time when the fire occurred a person named Burke was in the gaol of Clonmel awaiting his trial for the murder of his wife by poison. Some of the viscera had been sent to the College for analysis by the professor of chemistry, and were lying in that wing of the College which was set fire to. Immediately before the day on which the fire took place a young lady who was said to be attached to Burke, and whom he was to marry if he could get rid of his wife, arrived in Cork; and it appeared pretty clear that one of the porters or some person employed in the College had been bribed by Burke or his friends to destroy the evidence of his guilt. He wished to ask the Government whether it was not to the circumstance which he mentioned that the burning of the College was to be traced.

Sir R. Peel said that a great number of rumours were afloat with regard to the burning, and it was, he believed, true that the viscera of Mrs. Burke were in the laboratory of the College at the time the fire took place, but he did not know whether the burning was connected with her murder or not.

After some further remarks from various speakers, the vote was agreed to.

Mr. Walpole, in moving a vote of £92,127 for the expenses of the British Museum—a sum rather in excess of the vote last year—thus referred to the late purchase of a cave in the south of France containing early human remains, to which we directed attention in the *Medical Times and Gazette* of June 18:—

"The first of the great purchases of the past year is that of the collection recently found in a cave in the south of France, and brought here under the superintendence of Professor Owen. I look upon that as one of the most valuable acquisitions we could have gained for the benefit of the country at large. There is no question which excites greater interest in a scientific, archæological, and, I may say, antiquarian point of view, than that raised by Professor Lyell in his book on the antiquity of man (hear, hear); and this collection I am sure will amply repay an inspection from any member who takes an interest in this subject. For that collection we have given £1000, and I am sure the money could not have been better spent."

He thus spoke of the increasing difficulty of providing room for the collections, and the proposition of removing the Natural History Museum to South Kensington:—

"That brings me to an important question, which has been often debated in this House; while you are purchasing these collections where are you to put them?—because the collections we have in the Museum now are so great that we cannot possibly exhibit them all to the public, and for a long time the new purchases must be practically lost to the public. The Government have recently intimated to us that they have a plan for the accommodation for the natural history collections upon the site purchased at South Kensington. Whether you transfer your natural history collections to another place, or whether you keep them altogether, I should wish to press on the Government the necessity of coming to a decision during this autumn. If you determine to remove your natural history collections to South Kensington, you undoubtedly have a site there capable of accommodating your collection, but if you determine to keep them all together, the only way will be to purchase from the ground landlord the houses round the Museum. The charge you will thus put on the public will be comparatively small, because it will only be a charge for so many of the houses as from time to time you are called on to add to the Museum."

Mr. Ayrton said he thought that the more interesting the collection became, the greater reason there was that the fullest opportunity should be granted to the public to visit it, and, therefore, he regretted that the trustees had not been able to provide for opening the Museum in the evenings. Experience at South Kensington had shown that evening exhibitions were practicable, and if the British Museum were open from seven to ten at night, it would attract fully double the number of visitors who now came. Having been a member of the committee on the British Museum which sat last year, he was inclined to agree with the right hon. gentleman that steps should be taken to provide for the enlargement of that institution. The investigation into the property at South Kensington had shown that no obligation fell upon the Government to erect buildings upon that site. Every obligation connected with that property could be fulfilled by selling the land and applying the proceeds to the enlargement of the British Museum. The property was acquired under a trust to buy or sell property for the purposes of science and art. If it was lawful to place the British Museum at South Kensington, it was equally proper to sell property at South Kensington, and to enlarge the British Museum. He hoped the Government would bear in mind the right hon. gentleman's suggestion, and take proper steps to keep the British Museum where it was now placed. There was no place about the metropolis so much cut off from the bulk of the inhabitants as South Kensington, which was separated from the densely-inhabited parts of London by St. James's, the Green, and Hyde Parks, and by Kensington Gardens. The place had been offered to nearly all the scientific societies of the metropolis, but they had one and all refused to go there, because they knew it would be their ruin. If it was a convenient site for public buildings, why were not the theatres brought there? (Hear, hear.) The managers knew better. As Parliament had spent millions on the British Museum, and voted about £90,000 a year to maintain it, it was now their duty to have it in a place where it was accessible to the general public.

Mr. Locke observed that one would suppose his hon. and learned friend who had just addressed the Committee was always in the Tower Hamlets, and never rode in Hyde-park or walked in Kensington-gardens. Both these places were as much crowded on Sundays as Victoria-park, and if the South Kensington Museum were opened on Sundays it would be crowded. There was a stipulation between the Commissioners for the Great Exhibition and the Government that the site at Kensington should be used for the purposes of science and art. He was not entirely wedded to South Kensington; but so far from being out of the world it was quite in the world.

Mr. White thought it would be of great public advantage to open the British Museum at night, if it could be lighted with safety to the collections; and he also believed that it would be very useful to have popular lectures on the various specimens.

Mr. Lewis opposed the removal of the collection to South Kensington.

The Chancellor of the Exchequer said, with regard to the question of the removal of the collection to South Kensington, the proper time to consider that question would be when the

Government proposed a grant for the erection of a building there.

Mr. Walpole said he did not believe that the proposal for keeping the Museum open from six to eight, or until ten, would be found to answer. The danger did not simply arise from fire, though that was an important consideration; but if the Museum were kept open it would have to be lighted by gas, and such a course would inevitably entail great damage upon the sculpture, books, and other things contained in the Museum.

Mr. C. Bentinck wished to know if it was the intention of the Government to propose at some future period the separation of the collections at the British Museum.

The Chancellor of the Exchequer said that due notice would be given to the House of any proposal that it might be thought desirable to make. The proposal would be made during the present Session.

Mr. Augustus Smith understood that some proposal had already been made to the trustees by the Government, and he thought the House was entitled to know what it was.

Mr. Walpole said the Government had been considering what they should do with the site at South Kensington, and they had communicated with the trustees to know what quantity of land they would require, and what extent of building would be sufficient to accommodate the natural history collection.

The vote was then agreed to.

We are glad to see, from the tenour of this debate, that the separation of the national collections and the removal of the Natural History Museum to a site where it would be out of reach of two-thirds of the metropolis is not yet finally determined on. We trust when the matter again comes before Parliament that such an injurious change will meet with the strenuous opposition of all who are interested in the education of the people and the progress of science. The proposal to open the Museum of an evening, involving, as it does, the introduction of gas, could not be adopted with a due regard to the inestimable value of the collections.

In the House of Lords, on Tuesday, July 12, the Life Annuities and Life Assurance Bill and the Lunacy (Scotland) Bill were read a third time and passed.

FROM ABROAD.—DISCUSSION ON THE MOVEMENTS OF THE HEART —ACADEMICAL CANVASSING—NEURALGIA OF STUMPS.

The Paris Academy of Medicine is certainly a remarkable body as regards the facility of speech of its orators and the patient endurance of its audience. Never allowing itself a holiday, but steadily meeting from week to week throughout the year, and apparently never at a loss for subjects of discussion, we find it, in the dog-days, in the midst of a prolonged debate upon the theory of the motions of the heart. This originated in a report by M. Gavarret upon the sphygmographic experiments of MM. Chauveau and Marey, and has been continued over nine or ten meetings by MM. Beau, Bouillaud, Béclard, Barth, etc. Much as we may admire these oratorical displays, we cannot say that we have gained any definite ideas upon the points at issue, the old discrepancies of opinion being for the most part re-stated in new and somewhat prolix terms. At all events, our space forbids any attempt at analysis, and we must content ourselves with indicating to those interested a somewhat remarkable passage-at-arms.

In a recent oration pronounced at the Societe de Chirurgie in memory of the late Professor Robert, M. Verneuil gave great umbrage by the boldness with which he denounced the practice which prevails in Paris of personally soliciting those who have the disposal of scientific and academical positions. Candidates for such offices find that the necessity of paying visits to those who have votes or influence at their disposal is peremptory; for, great as the loss of time may be, and derogatory as may be the occupation, no candidate who refused such drudgery would stand the remotest chance of success. This applies to the highest as well as the humblest grades, for whether it be a simple *internat* or a professorship that may lead to world-wide celebrity that is sought for, election into a scientific academy, or the decoration of the button-hole with the coveted piece of ribbon—all demand the practice of a system of repeated and assiduous visiting. "Since 1835," says M. Verneuil, "Robert kept an account of all the visits he had been compelled to make in order to secure his success in his various candidatures, and these amounted to about 1400. And surely never did statistics expose a more crying abuse! These 1400 visits, taken one with another, must have each occupied an hour; and as few persons can consecrate more than four hours per diem for effective work, here we have a whole year lost in running about—a period amply sufficient for the preparation of a work capable of honourably transmitting a name to posterity." He stigmatises this abuse because he thinks utility may spring from so doing, "for what to-day seems but an utopia, to-morrow becomes a natural reform." It is evident that if the Continental *savants* obtain more honorific notices of their merits than with us, they have to go through a great deal of hard and excessively disagreeable work to obtain them; for not only have these visits to be made, but favours have to be asked, susceptibilities humoured, weak points discovered, and dignity compromised in a variety of ways.

M. Azam, a distinguished Surgeon, of Bordeaux, laid an interesting case before the Paris Society of Surgery. A man, aged 20, underwent amputation of the leg February 18, 1862, on account of crushing by a waggon. Three months after violent pains affected the entire stump, the slightest contact with this giving rise to the most intense suffering. Various anti-neuralgic remedies having been tried in vain, excision of a portion of the external peroneal nerve, at about five centimetres below the head of the fibula, was performed on September 25. Convulsions of quite an epileptic character ensued on inhaling chloroform, and these recurred daily for a fortnight, after which time they came on only at longer intervals. Only very partial relief of the pain occurred after a while, and in December it was attempted to excise the external peroneal, but the violent convulsions which ensued on inhaling the chloroform, and the spasmodic contractions which seized the stump, prevented this being done. The convulsions continued with frightful intensity for a week after. However, on January 8, 1863, chloroform was administered to sideration, and a portion of the sciatic nerve, about three centimetres long and just above the bifurcation, was excised. Complete analgesia and anœsthesia of the stump ensued during forty-eight hours, and after this time the normal sensibility was gradually restored, the patient entirely losing all pain and tenderness of the stump. Had the case now been been published, it might have been termed an example of splendid success. The patient was enabled to go about with ease and pursue his calling as a newspaper vender in the streets. But about seven months later, while attempting to save himself from falling, he was seized with violent pains in the stump and convulsions; but these never became so bad as heretofore, and at the time of reporting, May, 1864, although severe, they may be considered as tolerable. M. Azam attributes the production of the neuralgia in this case to the contraction of the abundant inodular tissue deposited in consequence of the slow healing of the stump after the flap operation, and he suggests that it would be desirable in such operations to excise the ends of the nerves to a considerable distance. He also sought the advice of the Society as to what he should do in case the neuralgia, as it probably would do, should return with severity. Ought a third excision to be performed, or should the patient be left to his fate?

M. Verneiul, who has paid much attention to the question of irritable stump, attributes the production of the neuralgia to neuroma, which itself may be due to irritation of the extremities of the nerves by the cicatrix or bone, and he thinks the best preventive is to cut off the nerve at a sufficient height to prevent all injurious compression. M. Broca does not believe that the return of the pain in such cases depends upon a regeneration of the divided nerve, as motion is not reproduced, which, in the case of a mixed nerve, it ought to be. In his numerous

experiments upon excision of the sciatic nerve in the sheep, he has never been able to obtain reunion of the ends of the nerve. He is disposed to attribute the partial renewal of the pain in the present case to an affection of the femoral nerve. In reply to an objection by M. Marjolin that excision of the nerves would impair the cicatrixial power and induce gangrene, he states that his experiments have amply demonstrated to him that complete and satisfactory healing may go on when all nervous supply from these sources has been cut off. He observes that we should not confound mere reunion of the ends of the nerves with regeneration, which implies a reproduction and intercommunication of nerve lobules, a far more complex procedure. M. Houel referred to M. Nélaton's case of resection of a portion of the median nerve, with subsequent reproduction of both sensation and motion in eight or ten days. This case was received with so much doubt by M. Verneiul and others, that, at a subsequent meeting of the Society, M. Houel furnished full and interesting details. It is the same case which M. Laugier referred to in his paper on suture of the nerves, referred to in our notice last week. M. Legouest communicated the summary of an elaborate essay by M. Gherini, of Milan, and M. Richet related a case to show that excision of the nerve in this or any form of neuralgia is but a palliative procedure.

ST. BARTHOLOMEW'S HOSPITAL. — The Treasurer, Medical officers, and lecturers of this institution have issued cards for a conversazione in their hall on Friday, the 22nd inst.

KING'S COLLEGE, LONDON.—MEDICAL DEPARTMENT, 1863-4.—The following honour list has been forwarded for publication:—*Scholarships*—Richard Wheeler Haines, senior scholar; Charles Kelly, second year scholar; William Alsept Richards, Edward Nettleship, and Robert Lewis Wilcox, junior scholars; Samuel Lymas Herbert and William Alsept Richards (elected for three years), and Robert Temple Wright, John Hougham Bell, and George Anderson Canton (elected for two years), Warneford scholars, Class I.; Richard Wheeler Haines, Warneford scholar, Class II. Prizes and Certificates of Honour: Winter Session, 1863-4: *Warneford Prizes*—Charles William Philpott, first prize; Charles Berrell, second prize. *Leathes Prizes*—George Edward Shuttleworth, first prize; Charles Kelly, second prize. *Divinity Prizes*—Fred. Joseph Greening, third year; Samuel Hignett Smith, second year; William Alsept Richards, first year. *Gill Prizeman*—John Hougham Bell. *Anatomy*—Walter Owen Withers, prize; John King, Robert Shingleton Smith, and Geoffrey Hett (second year), and Samuel Lymas Herbert (first year) certificates of honour. *Physiology*—Robert Shingleton Smith, prize; Walter Owen Withers (second year) and Samuel Lymas Herbert (first year), certificates of honour. *Chemistry*—Robert Shingleton Smith, prize. *Medicine*—Miles Astman Wood, prize; Thomas Clay Shaw, B.A., and Edward Liveing Fenn and George Edward Shuttleworth (*Æq.*), certificates of honour. *Surgery*—Thomas Bond, prize; Charles Berrell, Thomas Clay Shaw, B.A., and George Edward Shuttleworth, certificates of honour. *Clinical Medicine*—Edward Liveing Fenn, prize. *Clinical Surgery*—John Henry Salter, prize; Walter Thomas P. Wolston, certificate of honour. Prizes and Certificates gained in the Summer Session, 1863:—*Practical Chemistry*—Frederick Marshall, prize; Robert Shingleton Smith and George Arthur Brown, certificates of honour. *Forensic Medicine*—Charles William Philpot, prize; Richard Wheeler Haines and Edward Casey, certificates of honour. *Botany*—Ralph Gooding, prize; Walter Owen Withers, certificate of honour. *Midwifery*—Richard Wheeler Haines, prize; Henry Law Kempthorne, certificate of honour. *Materia Medica*—Charles Kelly, prize; John Harrington Wright and Richard Shingleton Smith, certificates of honour. *Comparative Anatomy*—William Turberville Buckle, prize; Arthur Shears, certificate of honour. *Clinical Medicine*—Revett Coleridge Powles, prize; Richard Wheeler Haines, certificate of honour. *Clinical Surgery*—Hutchinson Royes Bell, prize; Richard Hake Bush, certificate of honour. Names of those elected Associates of King's College, London:—Charles Henry Allfrey, M.D., John Spencer Ferris, Gwynne Henry Harries, M.B., Henry Law Kempthorne, Alfred John Matthew, Revett Coleridge Powles, Richard Wheeler Haines, Robert Meadows, M.D.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF BIRMINGHAM.

THE GENERAL HOSPITAL—*Continued.*

SURGICAL PRACTICE OF THE HOSPITAL.

THE Surgical practice of the Hospital is varied, because no class of disease is excluded. The number of accidents is very large, and cases of extensive burns are admitted—I had nearly said—daily; from three to four each week is considered, during portions of the year, especially from November to the spring, by no means a large number. As there is an opthalmic Hospital in the town, the patients admitted with diseases of the eye are, however, comparatively few, such as do come being chiefly persons suffering from traumatic affections, deformities, and strumous conditions complicating other and more serious disorders.

As a result of the practice the number of Surgical operations is very large, and the facts obtained are extremely valuable. Every new operation is immediately placed upon its trial, and its advantages and disadvantages are determined. In the way of example, I may append the following facts in respect to Syme's operation on the foot—an operation, by the way, which is preferred by the Surgeons of this Hospital generally, I believe, to the operation of Pirogof.

Statistics of Syme's Amputation.—Forty-five Cases.

Date.	Age.	Disease or Accident.	Surgeon.	Result.
1853.				
Aug. 17	29	Strumous disease of tarsus	Mr. Pemberton	Cured.
1854.				
April ..	12	,, ,, ,,	Mr. Baker ..	,,
May 17	33	,, ,, ,,	Mr. Crompton	,,
Oct. 14	26	,, ,, ,,	Mr. Amphlett	,,
Nov. 15	13	,, ,, ,,	Mr. Baker ..	,,
1855.				
Feb. 13	27	Compd. fracture of tarsus	Mr. Amphlett	Died.
March24	19	,, ,, metatarsus	Mr. Pemberton	Cured.
April 25	18	Strumous disease	,,	,,
May 9	1	Hypertrophy of the foot ..	,,	,,
Aug. 15	14	Strumous disease of foot ..	Mr. Baker ..	,,
Oct. 17	39	,, ,, ,,	,,	,,
Dec. 12	14	,, ,, ,,	,,	,,
1856.				
Jan. 23	24	,, ,, ,,	Mr. Pemberton	,,
April 2	18	Compound fracture of foot	Mr. Crompton	,,
June 26	23	Strumous disease of tarsus	Mr. Pemberton	Recovered. Amputation higher up was required.
Sept. 17	32	,, ,, of ankle	Mr. Baker ..	Cured.
Oct. 8	31	,, ,, of foot	Mr. Pemberton	Died.
Nov. 26	34	,, ,, ,,	Mr. Baker ..	Cured.
1857.				
Feb. 18	7	,, ,, ,,	Mr. Pemberton	,,
,, 27	22	,, ,, ,,	Mr. Bolton ..	,,
Sept. 18	15	Compd. fracture of tarsus	Mr. Baker ..	,,
Nov. 11	41	Strumous disease of tarsus	Mr. Pemberton	,, Flap sloughed
1858.				
June 20	10	,, ,, ,,	Mr. Crompton	,,
March31	24	,, ,, ,,	Mr. Bolton ..	Died.
May 6	12	Compd. fracture of tarsus	Mr. Baker ..	Cured.
1859.				
Feb. 2	30	Strumous disease of foot ..	Mr. Crompton	,,
May 18	44	,, ,, ,,	Mr. Bolton ..	,,
June 8	14	,, ,, ,,	Mr. Crompton	Died.
July 6	17	,, ,, ,,	Mr. Bolton ..	Cured. Flap sloughed.
Aug. 24	29	,, ,, ,,	Mr. Pemberton	Cured.
Sept. 19	20	,, ,, ,,	Mr. Baker ..	,,
Oct. 31	17	,, ,, of ankle	Mr. Pemberton	,,
1861.				
Jan. 9	20	Deformity of foot	Mr. Pemberton	,,
Feb. 13	5	Strumous disease of ankle	Mr. Baker ..	,,
March 6	8	Deformity of foot	,,	,,
,, 27	34	Strumous disease of ankle	Mr. Crompton	Died.
Oct. 27	41	,, ,, of tarsus	Mr. Pemberton	Cured.
1862.				
Feb. 26	39	,, ,, of ankle	Mr. Crompton	,,
June 18	28	Compound fracture of foot	,,	,,
July 30	14	Strumous disease of ankle	,,	,,
,, 30	15	,, ,, of foot	Mr. Baker ..	Died.
Aug. 24	37	Compd. fracture of tarsus	Mr. Bolton ..	Died. Had, also, fracture of the skull and other injuries.
1863.				
June 28	30	Strumous disease of ankle	Mr. Bolton ..	Cured.
,, 28	10	,, ,, ,,	Mr. Pemberton	,,
July 27	51	Compound fracture of foot	,,	,, Flap sloughed

The success of the operation is thus marked by six deaths to forty-five operations, or 13·33 per cent. In one case ampu-

tation of the thigh had to be performed and in three cases the flaps sloughed. As in the patient operated on on the 4th of August, 1862, injuries of the head had been received before admission, it is hardly fair to classify his case with the rest, but that the extreme mortality might be given I have not excluded it.

Teale's Amputation.

The new method of amputation invented by Mr. Teale, of Leeds, has been tried in the General Hospital rather largely, and has found favour. I am enabled to present to the reader an analysis of all the cases in which this operation has been performed, with the results.

Date.	Age.	Disease or Accident.	Amputation of	Surgeon.	Result.
1850.					
June 16	36	Strumous disease of carpus	Forearm	Mr. Crompton	Cured.
Sept. 14	14	Strumous disease of tarsus	Leg ..	Mr. Pemberton	,,
Dec. 14	29	,, ,,	,, ..	Mr. Crompton	Cured. Died afterwards from phthisis.
1860.					
Jan. 13	25	Compound fracture of foot	,, ..	Mr. Pemberton	Cured.
,, 13	44	Wound of ankle-joint	,, ..	,,	,,
Feb. 1	19	Strumous disease of ankle	,, ..	,,	,,
,, 1	18	Syme's amputation	,, ..	Mr. Bolton ..	,,
April 11	17	Necrosis of femur ..	Thigh ..	Mr. Baker ..	Died.
,, 11	20	,, ,,	,, ..	Mr. Bolton ..	Cured.
,, 18	14	Strumous disease of knee	,, ..	Mr. Pemberton	,,
,, 20	15	Necrosis of tibia ..	,, ..	,,	,,
May 9	34	Strumous disease of ankle	Leg ..	Mr. Crompton	,,
July 5	45	Strumous disease of wrist	Forearm	Mr. Pemberton	,,
,, 25	48	,, ,,	,,	Mr. Bolton ..	,,
Nov. 14	26	Strumous disease of knee, previous excision	Thigh ..	Mr. Pemberton	Died.
Dec. 24	21	Compound fracture of carpus	Forearm	Mr. Crompton	Cured.
1861.					
March 9	20	Compound fracture of leg	Leg ..	Mr. Bolton ..	Died from shock
April 6	35	Compound fracture of foot	,, ..	Mr. Pemberton	Died.
July 14	30	Compound fracture of thigh into knee-joint	Thigh ..	Mr. Crompton	Cured.
Aug. 14	29	Strumous disease of ankle	Leg ..	Mr. Bolton ..	,,
,, 21	30	Malignant disease of tibia	Thigh ..	Mr. Crompton	,,
Nov. 27	20	Strumous disease of knee	,, ..	Mr. Pemberton	,,
Dec. 24	13	Strumous disease of ankle	Leg ..	Mr. Crompton	,,
1862.					
July 2	10	,, ,,	,, ..	Mr. Bolton ..	,,
Sept. 17	30	,, ,,	,, ..	Mr. Baker ..	,,
1863.					
June 10	7	Strumous disease of knee	Thigh ..	Mr. Bolton ..	,,
,, 17	8	,, ,,	,, ..	,,	,,
July 1	31	,, ,,	,, ..	Mr. Pemberton	Died.
,, 5	50	Compound fracture of leg	Leg ..	Mr. Bolton ..	,,
Oct. 7	35	Strumous disease of ankle	,, ..	Mr. Baker ..	,,
,, 7	22	Strumous disease of knee	Thigh ..	,,	,,
Nov. 25	14	,, ,,	,, ..	Mr. Bolton ..	Cured.
1864.					
Feb. 17	24	Strumous disease of ankle	Leg ..	Mr. Crompton	,,

It will be seen that the amputation has thus been performed thirty-three times. The deaths following upon the operation have amounted to eight. The mortality consequently may be taken as at the rate of 24.24 per cent. I regret that I have no facts before me, neither do I know where such facts could be obtained, that would show how the mortality after this operation stands side by side with that following the double flap and circular operations.

Excision of the Knee-joint.

Mr. Fergusson, in his late lectures at the Royal College of Surgeons—the simple and masterly character of which lectures every one who reads them must acknowledge—has paid a proper and just compliment to one of the Surgeons of the General Hospital, Mr. Oliver Pemberton, for the care, skill, and boldness with which the operation of excision of the knee-joint has been carried out under his impulse and initiation. In fact, only three institutions in the United Kingdom can claim to vie with the General Hospital of Birmingham in respect to this great and important operative procedure. Mr. Bracey, the present Resident Surgeon of the Hospital, has been so good as to collect and arrange all the cases for me that have up to this time been performed, and I place them now in order, as the other statistics of operation—obtained also by the same kind aid—have been placed above.

Date.	Age.	Disease.	Surgeon.	Result.
1854				
Feb. 8	11	Chronic disease of knee	Mr. Pemberton	Recovered, but no bony union.
1857				
Oct. 28	22	Strumous disease of knee	Mr. Crompton	Cured.
Dec. 9	22	,, ,, ,,	,,	,,
1858.				
March 29	9	,, ,, ,,	Mr. Pemberton	Died.
June 29	28	,, ,, ,,	Mr. Crompton	Cured.
Aug. 19	17	,, ,, ,,	Mr. Pemberton	,,
Oct. 6	30	,, ,, ,,	,,	Died from variola.
1859.				
Feb. 3	23	,, ,, ,,	Mr. Baker ..	Cured.
March 29	21	,, ,, ,,	Mr. Bolton ..	,,
May 18	23	,, ,, ,,	Mr. Pemberton	Recovered, but union imperfect; amputation; pyæmia; death Nov. 4, 1860.
Aug. 17	13	,, ,, ,,	,,	Cured.
1860.				
Feb. 8	15	,, ,, ,,	Mr. Baker ..	,,
March 21	23	,, ,, ,,	,, ..	,,
April 11	24	,, ,, ,,	Mr. Pemberton	,,
Sept. 18	29	,, ,, ,,	Mr. Bolton ..	,,
,, 19	15	,, ,, ,,	Mr. Baker ..	Result unsatisfactory; patella afterwards removed.
Dec. 26	19	Comp. fract. of condyle of femur; wound into knee-joint.	Mr. Crompton	Cured.
1861.				
Feb. 13	23	Strumous disease of knee	,,	Cured, but necrosis afterwards occurred requiring amputation.
,, 27	16	,, ,, ,,	,,	Died.
June 5	20	,, ,, ,,	Mr. Baker ..	,,
,, 12	31	,, ,, ,,	,, ..	Thigh afterwards amputated and recovery
,, 19	17	,, ,, ,,	Mr. Bolton ..	Cured.
Oct. 16	25	,, ,, ,,	,, ..	Died
1862.				
March 26	22	,, ,, ,,	Mr. Pemberton	Cured.
July 4	50	,, ,, ,,	Mr. Baker ..	Died.
Aug. 13	19	,, ,, ,,	Mr. Pemberton	Recovered—bony union but imperfect repair.
1863.				
May 20	13	,, ,, ,,	,,	Died.

The cases of excision amount to twenty-seven in all. Of these six only died directly from the operation, because the death from variola must necessarily be excluded. The mortality has thus been at the rate of 22·22 per cent. The cases in which the cure was perfect amount to fourteen, or 51·85 per cent. The cases requiring amputation were three, or 11·11 per cent., and the operations that were partially successful are also three, or 11·11 per cent.

Taking all in all, the Surgeons of the General Hospital have reason to be satisfied with their success. It certainly is such as to induce other Surgeons to carry out the same measure, and that especially where the salubrity of the Hospital is satisfactory. As there are many who hesitate only in the performance of the operation because they are not clear as to the character of the case that succeeds best, I take this opportunity of laying before them my friend Mr. Pemberton's rules in the matter of selection. These may be placed under five heads:—

"1. Those cases will be found most eligible for excision where the mischief in the bone is limited to the articular extremity, and where the soft parts have not become adherent to the parts beneath, from the presence of sinuses, or from the general effects of long continued disease.

"2. Where the disease in the bone cannot be removed without the sacrifice of too great an amount, or where the soft parts around the joint have assumed an unhealthy character, amputation should be preferred; a vigorous condition of the latter structures being quite as essential to subsequent repair and well-doing as is a section through sound bone for the attainment of satisfactory osseous or fibrous union.

"3. Cases in which there has occurred the most complete alteration of the synovial membranes, accompanied by destruction of the cartilages, together with the ligamentous tissues, so long as the bones and soft parts are affected within the limits laid down, will be suitable to excision.

"4. In forming a judgment, the constitutional power of the patient must not be disregarded. There are many instances of knee diseases, requiring an operation, in which the pul-

monary tubercular tendency is also manifest. The disposition to mischief in the lungs in these cases renders them ineligible for excision—in fact, unable to bear prolonged suppuration; whilst the removal of the disease by amputation, followed by the rapid recovery usual in such persons after such an operation, is well known to be attended by the happiest results.

"5. In acute cases of diseased articulations, with suppuration, the selection of excision must be attended with great hazard. Free incisions into the cavity of the joint should be made, in the hope of thus relieving the disorder and obtaining anchylosis in preference. The constitutional powers not admitting of this treatment, it will be better, then, to recommend amputation rather than resort to excision."

The Operation of Lithotomy.

The Surgeons of the General Hospital claim that for many years their statistics of lithotomy were second, as regards favourable result, to none in the kingdom. At one time the mortality was noted as one death in twenty cases. There may be an error in the record on this point, and therefore we will be content to go back during the past ten years, during which correct data have been kept. We find, then, that in this period *one hundred and twenty-two* persons of various ages have been cut for stone, that *ten* have died, and that *one hundred and twelve* have recovered. This gives a mortality from the operation of *one* in twelve, or 8·19 per cent.

Of the ten fatal cases the ages of the patients were as follow :—

One	patient was aged	3	years.
Three	patients were aged	5	,,
One	patient was aged	8	,,
One	,, ,,	53	,,
One	,, ,,	56	,,
One	,, ,,	59	,,
One	,, ,,	64	,,
One	,, ,,	65	,,

The recoveries placed in the same order run thus :—

Two	patients at the age of	2	years.
Eleven	,, ,,	3	,,
Eighteen	,, ,,	4	,,
Nine	,, ,,	5	,,
Nine	,, ,,	6	,,
Fourteen	,, ,,	7	,,
Three	,, ,,	8	,,
Two	,, ,,	9	,,
Four	,, ,,	10	,,
Two	,, ,,	11	,,
Six	,, ,,	12	,,
Two	,, ,,	13	,,
Two	,, ,,	14	,,

(Making 84 recoveries at ages under puberty.)

Seven	patients between	15 and 20	years
Three	,, ,,	20 and 30	,,
Two	,, ,,	30 and 40	,,
Three	,, ,,	40 and 50	,,
Ten	,, ,,	50 and 60	,,
One	patient at	64	
One	,, ,,	65	
One	,, ,,	66	

(Making 28 recoveries at ages above puberty.)

From these facts we gather that out of eighty-nine cases of lithotomy in persons under puberty, the mortality after the operation has been at the rate of 5·95 per cent., or one in eighteen and three-quarters; while in persons over puberty it has been at the rate of 15·15 per cent., or one in 6·60.

These results are very good. As regards adult patients, even Norwich does not compete with Birmingham during the past ten years. In the performance of lithotomy the lateral operation is always performed; one of the Surgeons uses a beaked knife, the others use, simply, a scalpel.

Results of Amputations, Primary and Secondary.

During the past ten years *two hundred and ninety* amputations have been performed. In the latter five years the increase in the number of these operations has been very great. Thus in the first five years of the period they were 121, while in the second five years they reached 169. This is due unquestionably to the increasing population of the town, and the greater activity of its industrial life. The series of valuable and interesting facts stated below yield an accurate view of the successes and failures of the practice of amputations, both primary and secondary.

During ten years—

Of 19 primary amputations of the thigh, 6 recovered,
Being at the rate of 31⅓ per cent.

Of 67 secondary amputations of the thigh, 52 recovered,
Being at the rate of 77½ per cent.

Of 30 primary amputations of the leg, 16 recovered,
Being at the rate of 53⅓ per cent.

Of 82 secondary amputations of the leg, 63 recovered,
Being at the rate of 76¾ per cent.

Of 32 primary amputations of the arm, 20 recovered,
Being at the rate of 62½ per cent.

Of 15 secondary amputations of the arm, 13 recovered,
Being at the rate of 86⅔ per cent.

Of 45 primary and secondary amputations of the fore-arm,
All recovered.

The method of amputation varies very much according to the case; in fact, no fixed rule is followed, and no special operation preponderates. The stumps are always dressed very lightly, being generally laid upon a pillow with a little wet lint covering the wound. Water pillows or cushions are sometimes used, and are found to distribute the pressure most agreeably to the patient, and to prevent separation of the flaps. They are found peculiarly useful when restless children have been subjected to operation.

Acupressure.

Acupressure has been used for trial in a few cases. In four instances of amputation it was eminently successful; in two other cases it was not successful, secondary hæmorrhage having come on. The precise value of acupressure has yet to be more fully tested. For particulars of the four cases referred to I am indebted to Mr. Bracey.

The first case was under the care of Mr. Crompton. It was that of a young man, aged 23, suffering from strumous disease of the knee. The thigh was amputated by Teale's method in the lower third. The femoral artery and one other artery were secured by acupressure, and no ligatures were applied. The needles were removed on the evening of the third day after the operation. A great part of the stump healed by first intention. A drawing was taken at the end of four weeks and sent to Dr. Simpson.

The second case was under the care of Mr. Crompton. The patient was a man, aged 64 years. He suffered from epithelial cancer of the arm. Amputation by flaps was performed in the upper third. The brachial artery and two others were secured with three pins. No ligatures were applied. The needles were removed on the evening of the second day after operation, and the stump healed well and readiiy.

The third case was also under the care of Mr. Crompton. It was that of a man aged 21, who had sustained compound fracture of the leg. Circular amputation of the thigh was performed in the lower third. The femoral artery was secured by acupressure, and no ligatures were used. The needle was removed on the morning of the third day after the operation. Secondary hæmorrhage from the femoral occurred two days later. The needle was re-introduced and retained until death, which occurred on the ninth day.

In this case pus was found in the femoral and iliac veins. The pyæmic condition accounted, perhaps, for the absence of clot in the artery.

The fourth case was in a boy of 17, who suffered with extensive necrosis of the femur. Amputation by Teale's method was performed in the upper third of the thigh. The acupressure needle was applied to the femoral artery. Half an hour after the operation there was sharp bleeding from the femoral, and the vessel was then ligatured. The lad never rallied from the shock and exhaustion, and died on the second day after operation. This case was under the care of Mr. Baker.

Sutures.

Silver wire sutures are now in most common use in this Hospital. They have virtually supplanted the thread or silk suture, and, in fact, are usually trusted to alone, adhesive strapping having largely declined in estimation. The silver wire is thought to excite but very little local irritation.

Special Operations.—Excision of the Os Calcis.

Two operations of a novel character have been performed by Mr. Pemberton. I refer to entire excision of the os calcis. I regret I have only room for a very brief note of these cases.

The first case was that of a married woman, aged 29 years. Necrosis of the os calcis, of seven months' duration, and originating in a blow, was the disease. Complete excision of the os calcis was performed on September 25, 1861. The mode of operation was by a single long incision on the outer side of leg and foot, by which the attachment of tendo-Achillis to the plantar fascia was undivided. The wound healed in six

weeks, without complication. The patient is at this time strong and well. The foot is of almost unimpaired use, requiring only a padded heel.

The second case was in a single woman, aged 25 years. Necrosis of twelve months' duration in the os calcis, and originating in a sprain, was the disorder. Complete excision of the os calcis was performed on September 17, 1862. The mode of operation was by dividing tendo-Achillis and turning back the soft parts from over diseased bone. The wound healed without any drawback in five weeks. The patient at this time is well and strong, and walks without any limp. A padded heel only is required.

Dislocations of the Hip.

Amongst severe cases dislocations of the hip have been frequent, the bone being displaced backwards, and most often upon the ilium, just above the great sciatic notch. Within the last few days there has been a case of dislocation into the foramen wall, the result of a fall down a chimney. The patient, aged 56, had also a compound Pott's fracture on the same side, necessitating amputation of the leg. After this had been done, the dislocation was reduced by pulleys in the usual way. Manipulation has been successful in almost all the cases of dislocation backwards. It is carried out under chloroform. Mr. Crompton has lately had a case of double dislocation, the heads of both bones being over their respective sciatic notches. The patient, a very muscular man, fell on his back under a truck, and his knees were forcibly bent upon his body by the beam under the carriage as it passed over him. Both dislocations were reduced without much difficulty by manipulation under chloroform. This patient had also a severe laceration of the knee, and this only is keeping him from walking about at the present time.

Last February a dislocation of the hip into the sciatic notch was reduced at the forty-seventh day by manipulation under chloroform after extension by the pulleys. This patient, a strong young man, was under Mr. Baker, and he was able to walk a fortnight afterwards.

Fractures of the Leg.

Fractures of the leg are very common. They are generally treated by flexing the thigh upon the abdomen and bending the knee to a right angle, the leg being laid upon its outer side and fixed between iron splints applied laterally. Starch bandages are used as soon as the process of union has fairly begun—generally at the end of a fortnight. M'Intyre's splints are also used in some cases, and this appliance is found very advantageous also in affections of the knee-joint: as many as fifteen or sixteen of these splints are in use in the Hospital at the same time.

Treatment of Burns.

The local treatment of burns consists in anointing the part with linimentum calcis (or carron oil), laying some fine muslin saturated in the same evenly over the burn, and then covering the whole with a layer of cotton wool fixed by bandages.

For the general treatment, coffee is given as a drink at first, replaced by wine, if great depression occurs, and afterwards by ammonia, or by æthers, with sedative solution of opium, if there be much pain or restlessness. In the severe cases, however, which are so common here, coma soon supervenes, ending in death by congestion of the brain and lungs.

In very young children, the lungs are very often found collapsed, and not at all congested, death apparently resulting from depression of the nervous force, and consequent imperfect inflation of the lungs.

If the first stage is got over, recovery generally ensues, although sometimes a case is lost from exhaustion and hectic. In these case the duodenal glands have not been found affected.

Tetanus (though not common here) more frequently follows burns than any other form of injury.

The number of burns admitted is very great. There were 114 last year, forming 9·3 per cent. of the Surgical admissions ending December, 1863.

The rate of mortality from burns is very high, having been 37 per cent. last year.

The cases from the iron district are usually most terrible, a vessel of molten iron occasionally being overset, and burning the whole surface of the bodies of those with whom it comes in contact.

Laryngoscope.

The laryngoscope has been much used of late, especially by Dr. Russell; and with its aid a large tumour was removed from between the vocal cords last year. The patient, who was in constant danger of suffocation, has perfectly recovered.

Tracheotomy in Croup.

At one time tracheotomy was extensively practised in cases of croup—eight operations being performed in the course of twelve months. Great watchfulness was exercised, but the results were unsatisfactory, one case only having recovered. The others died either from extension of the disease into the bronchi, from pneumonia, or from exhaustion—fibrinous concretion in the heart?—with collapse of the lung.

In the last three years there have been three epidemics of phagedænic ulceration or mild Hospital gangrene; healing wounds and ulcers became affected with it, their surfaces melting away into a pale slough, with a thin fœtid discharge, and generally without much pain or any constitutional disturbance. Injuries of the hand were specially liable to the disease, and several amputations resulted from it. In the severer cases irregular sloughs were formed, and large vessels were laid open. Strong nitric acid appeared to have but little effect upon the disease, and after various forms of treatment had been tried the preference was at length given to poultices of charcoal and lemon-juice, applied every six hours. Opium to relieve the pain, and steel with the chlorates internally, a good diet and stimulants, were the general measures employed.

In the milder cases, frequent cleansing of the wound with Condy's fluid, and dressings of pure oil of turpentine or diluted carbolic acid seemed to be most efficacious.

The disease appeared to be epidemic, as many of those affected were out-patients, and some had not been to the Hospital before. It was not confined to any of the wards, and could not be traced to infection.

The strictest isolation of the patients was carried out, separate dressers and nurses being appointed to take charge of them; but this, with the most scrupulous cleanliness and ventilation, had no very distinct effect upon the epidemic. It gradually died away on each occasion. This year the Hospital has been free from it.

Erysipelas is not at all prevalent, and very seldom affects patients already in the Hospital. This is attributed by some to the practice of dry-rubbing the wards now adopted, as at one time, when the floors were constantly scoured, erysipelas was more frequent.

Pyæmia is too common. It seems to be due to the great number of serious injuries under treatment, and to the comparatively limited space. This, it is hoped, will now soon be obviated by the erection of a new wing.

Caustics—Chromic Acid.

Caustics are not often employed. In cases where effective caustic action is required, Vienna paste is occasionally applied or nitric acid. In ulcers taking the form of lupus, Sir William Burnett's solution is in favour as a local application. Chromic acid, on which Dr. Lowe, of Lynn, has experimented so ably, has lately been subjected to trial as a caustic, and with some advantage.

CHLOROFORM.

Chloroform is administered in all important operations excepting herniotomy and in primary amputations where the patient is intoxicated at the time when the operation is called for.

The administration is carried out by the House-Physician, whose duty during the time is solely confined to the task. In the absence of the House-Physician, one of the senior and advanced pupils takes his place.

The method of administration is now of the simplest character. The narcotic is merely poured on a napkin folded in the shape of a funnel. This plan is considered to be most manageable and least alarming to the patient. Formerly, and for some time, the simple mask inhaler was used; afterwards Snow's inhaler was employed; both were at last thrown aside, and have not been re-introduced.

The number of administrations of chloroform at the General Hospital has averaged 180 a-year. From the period of the introduction of chloroform it has been given at the least 2800 times. There has been no fatal case from chloroform, nor any case in which serious difficulties have been experienced.

MORTALITY.

In the year 1861 the number of persons who died in the General Hospital amounted to 210. On April 8 of the same year the population of the Hospital was 228. On these data and by his method of calculation—described already in another number of the *Medical Times and Gazette*—Dr. Farr

places the mortality at 92·11 per cent.; that is to say, every hundred beds yielded in 1860 92·11 of dead. This mortality is very much higher than in any Hospital that has as yet been before us, but it is lower than many other Hospitals of the same importance. It is 36 per cent. lower than the Northern Hospital at Liverpool, 38 lower than the Royal Infirmary of Manchester, and 10 lower than the United Hospital at Bath. By the ordinary method of calculation the mortality during the same year (1861) was not quite 8½ per cent.

The Surgical mortality during the past year ending December 31, 1863, was as follows. There were admitted into the Hospital—

By tickets . . .		308	patients.
Casualties . . .	703		
Urgent cases . . .	210	913	,,
		1221	,,

Of these there were—

Brought in dead	3
Deaths by burns	43
,, pyæmia	16
,, erysipelas	5
,, general causes	86
Total	153

In this notice I have included all the more important facts in relation to the practice of the General Hospital. For much valuable information I am specially indebted to the zealous co-operation of Mr. Bracey, the House Surgeon, who has given me every information I have sought, at much labour to himself, but I am sure with advantage to my numerous readers.

In the course of the last few days a report of the Committee appointed to inquire into the management of the Hospital has been published, and it lies before me for notice. I shall refer to this report shortly next week in dealing with the question of the sanitary condition of the Institution.

REVIEWS.

Army Medical Officers' Ophthalmic Manual. By Deputy-Inspector-General T. Longmore, Professor of Military Surgery at the Army Medical School.

We have perused this work with much pleasure. Although its author modestly claims for it but the rank of an *aide-mémoire*, it is in reality far more. It is an excellent practical guide to the affections of the refraction and accommodation of the eye, and the diseases of the inner tissues of the eyeball. From its design, as an "Ophthalmic Manual for Army Medical Officers," it was necessary that it should be as concise, yet as practical as possible, and these desiderata are certainly well fulfilled. Within the short space of seventy pages all the important and essential points in the diagnosis and symptoms of these affections have been given. Indeed, more information may be gained from it than from many an imposing tome of much larger dimensions. Nowhere has the author, however, sacrificed clearness of style to brevity. He has omitted no interesting or important fact,—passed over nothing essential. This alone would prove how well Professor Longmore understands his subject, and how thoroughly he has mastered it in all its bearings.

We are gratified that so much attention has been paid at the Army Medical School to so important a subject as Ophthalmology, and that Professor Longmore has found time in the midst of his arduous duties, not only to superintend these instructions, but also to furnish the service with this manual. We only trust the students at Netley will not fail to seize the opportunity of studying a subject which is at present but too much neglected at our Hospitals and Medical Schools. When we consider the value of each soldier to the country; when we reflect that his person represents so many pounds sterling to the community at large; and when we remember that, on account of the vastness of our possessions, and the comparative smallness of our army, the men have to undergo much severe and arduous service in various climates, it will be at once evident that, merely from a mercantile point of view, apart from all higher considerations, it is most important that everything should be done to preserve them in as perfect a state of health and efficiency as possible. It is, therefore, essentially necessary that our Army Surgeons should possess at least a superficial knowledge of all important advances in Medicine, Surgery, and Hygiene, and of such new aids to diagnosis as the ophthalmoscope and laryngoscope. This applies more particularly to Ophthalmic Surgery, as the progress in it has been far greater within the last few years than in any other speciality, and as the requirements for accurate vision in soldiers have been so much increased by the introduction of rifle drill as an integral part of their training. The Army Surgeon should be able rapidly, yet thoroughly, to examine the eyes of recruits, so that he may be able at once to detect the presence of any incipient disease which may at a later period lead to impairment of vision or even to total blindness. Such knowledge would prove of great benefit to the service, for it would not only save it from the expense of enlisting recruits who may within a short time prove unfit for duty, but it would also prevent the possibility of soldiers being unjustly accused of feigning weakness of sight, and being punished for *malingering* merely because the external appearance of the eye is healthy, although the ophthalmoscope would reveal extensive deep-seated disease.

Professor Longmore has divided this work into two parts. In the first he treats of the optical examination of the eye, in the second of the ophthalmoscopic examination. After having explained the meaning of the various terms in use in the optical examination of patients, such as "visual angle," "field of vision," "finite and infinite rays," "range of accommodation," etc., he enters upon the explanation of the nature of lenses, prismatic glasses, and other optical appliances. The second chapter contains a short but excellently clear *précis* of the anomalies of refraction and accommodation. The author, after first describing the normal or emmetropic eye, then passes over to the two anomalies of refraction, viz., myopia and hypermetropia, and in clear and well defined terms points out the leading features in the symptoms, causes, and diagnosis of these affections, and then lays down rules for their treatment by spectacles. He next considers other impairments of vision and accommodation, such as astigmatism, asthenopia, presbyopia, etc. The third chapter is specially devoted to the visual examination of recruits, and here we meet with many valuable hints. We would particularly call attention to the "dots" which Professor Longmore has devised for the purpose of ascertaining the acuteness of vision at target practice, for these will also be found useful by Surgeons to volunteer corps.

"By a recent circular it has been ordered that no men shall be received into the service who are unable to see distinctly a black centre, or circle, three feet in diameter, on a white ground, up to 600 yards at least. It will, of course, be rare that an actual range of this distance can be obtained for the enamination, and even if one can be got, and targets with centres of the size named are placed in position, it will be found practically difficult to settle whether they are seen or not, excepting on the bare assertion of the person under observation. Black centres, or test dots, have, therefore, been devised of a proportionate size for a distance of ten feet. A group of these centres, at certain distances apart from each other, is shown to the man who is trying to pass as a recruit, and if his power of sight is as strong as is required by the circular, he will be able to describe their number and relative position. These miniature centres will only answer the purpose explained; they will not assist in determining whether a man who states that he cannot see them is telling the truth.

"To avoid the inconvenience of having a series of eight or ten cards with distinct groups of dots, the dots have now been printed in a large group together, so arranged that, when an examination is being made, a certain proportion of them are covered by a separate piece of card held in the hand of the examiner, and the recruit is required to name the number and relative position of the dots which are left uncovered. In this way the examiner can vary the number of dots remaining visible according to discretion. When fixed numbers of dots in a series of groups have been used, it has been found that recruits have been made aware of the numbers on the cards, and deception thus practised."

One difficulty with which the Army Surgeon has often to deal is to determine whether a soldier is really ill and unfit for duty, or whether he is merely malingering. On this point, with regard to the examination of supposed cases of impaired vision, the author expresses himself as follows:—

"The question has been asked whether, supposing a soldier maintains that he cannot see clearly the bull's-eye at any range; that no description of lens improves his vision; and that no cause of disability is apparent, it can be proved that he really

does see clearly enough for duty? To a certain extent the Surgeon must be guided in such a case by circumstantial evidence and observation. A cross-examination, instituted with ordinary judgment, will usually expose the attempt at fraud. But in such cases the lenses become very useful; with the convex spectacles before his eyes, a trickster will almost certainly become confused, and will either see types or clots at distances which show that his vision is normal for distant objects, or he will overstate his case by saying he cannot see at all at any distance. If he says that he sees at any particular distance, the Surgeon can notice whether, after varied changes, he always returns to the same distance as affording clear vision. Should he be sharp enough to do so, the Surgeon notes the distance at which the objects are seen with the spectacles, and ascertains whether this proportionate distance is preserved under all stages of the examination.

"If the man is able to read, the distance at which a given type is read may be noted, and observation made whether he reads the larger types at proportionate distances. If he should state he is not able to do so, and he still maintains that neither concave nor convex glasses make distant objects clearer, he must be trying to deceive. Where there is a command of lenses of many varieties of focal range, the demonstration is more easy.

"I would not, however, wish it to be inferred from the above remarks that I believe attempts at fraud, in respect to defective vision, are frequent among soldiers in the ranks. On the contrary, my experience leads me to believe that, in the greater number of instances which have been suspected to be instances of deception, real disabilities have existed, though their true natures have not been ascertained. Suspicion has been excited in these cases because the determination of the existence of the particular conditions of sight under which the soldiers were labouring was not included in the Surgeons' range of diagnosis."

In the second part of the book the author first enters upon the various ophthalmoscopic appearances met with in the healthy eye, and then describes the symptoms and diagnosis of the different diseases of the inner tunics of the eyeball. Although the descriptions are necessarily very brief, they are extremely clear and precise, and no important point is forgotten. He passes in review the principal ophthalmoscopic symptoms met with in lesions of the optic nerve, the retina, and the choroid, as well as in other morbid states of the organ, such as glaucoma, cysticerci in the ocular cavity, etc. By first giving the chief ophthalmoscopic appearances, and then the diagnostic signs, he enables the reader at once to seize the principal features of each disease. We regret that our space will not permit us to go more into detail, but we would, in conclusion, strongly recommend this work to the attention of all who would gain an insight into these affections of the eye.

The Essentials of Materia Medica and Therapeutics. By Alfred Baring Garrod, M.D., F.R.S. Second Edition, Revised and Enlarged. Pp. 391. Walton and Maberly.

This is the most important, and to the Medical student and Practitioner the most useful, of the harvest of books on materia medica and therapeutics which have sprung up on all sides under the benign influences of the new Pharmacopœia. It is true that Dr. Garrod's work is designated a second edition, but it is in reality, in most respects, a new book; and we are promised that it shall "be followed by a companion work, completing the original idea, and devoted exclusively to the consideration of the value of medicines in the treatment of disease."

Dr. Garrod is a therapeutical iconoclast. It is refreshing in the present age of copyists to see with what a broad sweep he brushes away certain idols of theory before which Physic has long submissively bowed down. The readers of the *Medical Times and Gazette* have had some experience of this in the ruthless manner in which, in his Lectures on the British Pharmacopœia, he gave the *coup de grace* to the supposed virtues of arnica as the "sovereignst thing on earth for an *outward* bruise," and in his statement, contrary to the received opinion, that the resin of aloes is a feeble agent, and the watery extract a much more powerful and griping purgative. The present work contains several instances of the same kind. We all know the time-honoured prescription of tincture of hyoscyamus and liquor potassæ in irritable states of the urinary organs. Dr. Garrod asserts that the "caustic fixed alkalies, as potash and soda, when in contact with the preparations of henbane, destroy their activity by causing the decomposition of the active principle contained in them." Again, we have most of us been taught and have believed devoutly that colchicum increases the excretion of uric acid. The author, however, asserts that from numerous trials he is inclined to question the accuracy of the statement altogether, and he believes that it possesses a power of controlling the pain and inflammation in gout, independent of all evident increase of the secretions.

Another instance: Ever since the time of Dioscorides and of Galen, the latter of whom ate a lettuce every night to procure sleep, the *Lactuca sativa* and *Lactuca virosa* have been held to be hypnotic. Dr. Garrod, on the contrary, states that he has given thirty grains and more of good lactucarium without noticing any decided narcotic effect. Again we are told by him that the value of taraxacum as a remedy is a matter which admits of some doubt; and, as a last instance, it is well known that both here and on the Continent codeia has been vaunted as possessing all the anodyne and sedative properties of opium, without that of producing cerebral disturbance. Dr. Garrod, however, says that he has repeatedly found five grains of codeia fail to relieve pain (in the case of a patient suffering from a tumour pressing on a nerve) which was readily subdued by the fourth of a grain of morphia. He considers the therapeutics of codeia require re-investigation.

These instances will show that Dr. Garrod is not inclined to take things in this branch of Medical science for granted. It is by men possessing such a cast of mind, combined with power of accurate observation and patient investigation, that we may hope the true knowledge of therapeutics, of late years miserably neglected, will be advanced. Dr. Garrod has already raised himself to the first rank amongst the authorities on the subject, and we feel certain that the work before us will add to his well-acquired fame.

The plan of the book is as follows:—After an Introduction, which contains general remarks on the changes introduced by the new Pharmacopœia, the author commences the list of the Materia Medica with the inorganic substances. Under each head is succinctly given the source, mode of preparation, chemical properties and composition, officinal preparations with their composition, the therapeutics, doses, and adulterations. The metallic salts are ranged under their respective metals. In the second part of the work, containing the organic substances, the vegetable preparations are described in the same manner, under the heads of the natural orders containing the plants by which they are produced; and the animal substances under their respective divisions of the animal kingdom.

It will be seen, therefore, that the general plan of the book resembles in its outline that of the great work of Pereira. It contains, however, what Dr. Pereira's work, wonderfully complete as it is, wants—viz., a carefully-considered and well-arranged posological table. If we had any criticism to offer it would be that some of the doses prescribed are too small, but if this be a fault it is one decidedly on the right side. In this particular we believe Dr. Garrod's work to be a much safer guide than Pereira's, or than those of most of his other predecessors.

A Companion to the British Pharmacopœia; Comparing the Strength of the Various Preparations with those of the London, Edinburgh, and Dublin, United States, and other Foreign Pharmacopœias. With Practical Hints on Prescribing. By Peter Squire, F.L.S. Pp. 208. Churchill and Sons.

To pharmaceutists of all grades this book will render valuable assistance. It is an attempt, and in many respects a successful one, to reduce to practical working order the temporary state of confusion into which pharmacy has been thrown by the Medical Council and the compilers of the new Pharmacopœia. In a former number of this journal we have shown that it is perfectly easy to prescribe and weigh medicinal quantities in grains, but it is no such simple matter to conduct the operations of practical pharmacy on a large scale with the weights imposed by the Medical Council. In his preface Mr. Squire thus illustrates the difficulty:—

"The quantities of the several preparations made at different dispensing establishments will vary according to the amount of business done, so that a calculation has to be made in almost every case. This is no easy matter. If we take, for example, the formula for compound tincture of benzoin, and wish to prepare half a gallon, it will be necessary to multiply the number of grains of each ingredient ordered by four, and to divide the number thus obtained by 437·5, to

reduce it to ounces. In these cases highly inconvenient weights are obtained, consisting for the most part of ounces and odd numbers of grains."

Mr. Squire's book will save the pharmaceutist the wearying task of such calculations. He discards, wherever practicable, the whole system of special weights, and substitutes for it the simple expedient of expressing the formulæ in parts, which, of course, may represent any weight, English or foreign. When the parts refer to solids, they are to be weighed; in the case of liquids, they are to be measured. Thus, should the parts be considered as representing ounces, the avoirdupois ounce must be used for solids, the fluid ounce for liquids. The use of measures for liquids has been allowed, in accordance with the English method; otherwise, the adoption of the Continental method of weighing both solids and liquids would have insured greater uniformity in the work. We think, however, that Mr. Squire's book may furnish a useful hint to the compilers of the next edition of the British Pharmacopœia. Why should not the relative proportions only of the ingredients of officinal preparations be expressed, and the quantity to be prepared be left to be determined by the requirements of the pharmaceutist?

Appended to each of the officinal preparations of the British Pharmacopœia is a reference to the parallel preparation of the old College Pharmacopœias, and of those of the Continent and United States. Thus, for example, turning to tincture of opium, we find the present officinal preparation consists of $1\frac{1}{2}$ parts of opium in 20 parts of proof spirit. The same proportions are present in the London, Edinburgh, Dublin, United States, and Belgian tinctures; whilst in the Prussian there is 1 part of the drug in 10 of the spirit; in the Austrian, 1 in 6. We need not say one word to enhance the value of a work giving information of this kind. There is also a useful feature in Mr. Squire's book which we should gladly see introduced in all hand-books of Materia Medica and pharmacy—we mean tables giving the equivalents of English weights to French grammes.

As might have been expected, the pharmaceutical portion of the book is quite worthy of the author's distinguished reputation as a scientific pharmaceutist. We cannot speak so approvingly of the posological. The doses ordered are, as a rule, we think, too large, whilst in some cases there is the opposite error. As instances of the former, it may be noticed that the minimum dose of tincture of aconite is given as 20 minims; the minimum dose of colchicum wine, 30 minims; the minimum dose of tincture of opium, 15 minims. When we recollect that the book is destined to circulate largely amongst chemists and druggists, we cannot help regarding these, especially the first-named, as grave overstatements. We hope to see them reconsidered in a second edition. As instances of small doses, we may notice that the author states the dose of oxalate of cerium to be one grain, and that of the extractum belæ liquidum a teaspoonful.

With these exceptions we can give honest praise to Mr. Squire's book. It contains, besides officinal preparations, many useful formulæ and preparations which are not in the Pharmacopœia, and many hints valuable both to the prescriber and the dispenser. We give the following as an instance:—It is well known that oxide of silver, when rubbed up into a mass with creosote, will take fire; for this reason they are not ordered together, in the form of pill, in the treatment of stomach affections. Mr. Squire tells us that this effect may be obviated by first mixing the oxide of silver with liquorice powder. We conclude our notice by giving what has been represented to the author as the true formula for chlorodyne. He gives it the name of tinctura chloroformi composita:—Chloroform, 4 oz.; rectified spirit, 4 oz.; treacle, 4 oz.; extract of liquorice, $2\frac{1}{2}$ oz.; muriate of morphia, 8 grs.; oil of peppermint, 16 minims; syrup, $17\frac{1}{2}$ oz.; prussic acid (2 per cent.), 2 oz. Dose, 5 to 10 minims.

The Glyptodon.—Two recent numbers of the *Revista Farmacéutica* of Buenos Ayres contain a long paper by Professor Burmeister on the glyptodon. The specimens described by the author are more perfect than any in the European museums, not excepting those in the College of Surgeons and at Dijon. Professor Burmeister recognises three species only,—the glyptodon clavipes of Owen, the G. tuberculatus of Owen (Schistopleuron nodot.), and a new species, which he terms G. spinicandus, smaller in size and far more numerous than either of the two preceding species.

FOREIGN CORRESPONDENCE.

GERMANY.

Munich, June 8.

Professor Pettenkofer's first researches on respiration, which were published in your Journal for November, 1862, are no doubt fresh in the recollection of your readers, and in proceeding to give you an account of the investigations the learned Professor has since then undertaken on the same subject, together with his colleague, Dr. Voit, it will, therefore, not be necessary for me to enter into a description of the apparatus and method employed in these experiments, and which are by general assent acknowledged to be such as to most nearly approach to perfection.

One series of experiments concerned the products of respiration in the dog if fed by meat only, and on the proportion of material taken in and gone out of the system. A dog was at first put upon a mixed diet, and his secretions and excretions, as well as the amount of oxygen inhaled by him, determined. Afterwards he was, for twenty-five days, put upon a diet of 1500 grammes (three pounds) of meat per diem, from which, according to Voit's method, all fat, tendons, and connective tissue had been removed. Out of the twenty-five days the dog spent five in the respiration apparatus—viz., the first, fifth, ninth, thirteenth, and eighteenth day of the series. Without giving the numbers detailed in the account of these experiments, I merely mention the general result. The dog took 1500 grammes of meat, and 477·2 grammes of oxygen from the air = 1977·2, and gave out altogether 2011·8 grammes of excreta during the twenty-four hours. The elements of incoming and outgoing were as follows:—

	Taken in.	Gone out.
Carbon	187·8 grs.	184 grs.
Hydrogen	152·5 „	157·3 „
Nitrogen	51 „	51·1 „
Oxygen	1566·4 „	1599·7 „
Salines	19·5 „	19·7 „
	1977·2 „	2011·8 „

Difference, 34·6 grs., or nearly 1 per cent. This balance appears surprisingly accurate, without any further examination of the numbers obtained, but becomes still more so if we analyse the result somewhat more closely.

The greatest difference is perceived in the quantity of hydrogen and oxygen, and it appears at once that the increase of hydrogen and oxygen in the outgoings is very nearly in the same ratio as that in which these two elements combine to form water. This leads to the conclusion that the animal has lost some of the water it originally possessed. The increase in the outgoings is 9·8 grs. of hydrogen and 33·4 oxygen. Now, 4·8 grs. of hydrogen require 33·4 grs. of oxygen to form water, so that the animal may be said to have lost about 43 grammes of water, but no other constituents of its body, and that the whole waste of matter within the twenty-four hours has been kept up by the meat upon which it was fed. By this Professor Pettenkofer does not mean to say that the meat furnished the matter excreted during the day; on the contrary, he is of opinion that the food first serves as compensation for the wasted fluid and solid constituents of the body before being carried off in the excreta; but at any rate it must be assumed that, with only meat for food, a condition of the body may be induced and kept up, in which the sum of the elements of all wasted fluid and solid parts of the body is equivalent to the sum of the elements of the food given (which, in this instance, is meat and oxygen); so that there is every day in all parts of the body, an amount of matter equivalent to the food taken wasted away; and in the normal equilibrium of the system the daily food is daily metamorphosed or exchanged.

Professor Pettenkofer looks upon this result as a very important one. Up to the present time it might always be said that it was only a hypothesis, but not a proved fact, that the different elements of the outgoings were equivalent to the food taken; and it might have been thought possible that other constituents of the body, the composition of which is quite different from that of the food, took part in *ad libitum* proportions in the formation of the final products of change. How should it, for instance, be known whether the carbonic acid excreted came from burnt fat or from burnt albumen (meat)? or who could say that only a sum equivalent to the meat given, and not other constituents

of the body, were exchanged? It now appears, however, from a consideration of the facts mentioned, that no other substances except those of which the food consists, are exchanged, so that the process of growth, wasting, and fattening can only now be satisfactorily studied.

There is, however, a way of testing by cross experiments the soundness of the opinion advanced by the learned Professor—viz., that the dog's respiration and perspiration products were only due to the meat taken, and not to a waste of the fat of his body. It has been proved that the animal excretes the whole amount of nitrogen contained in the meat given within the twenty-four hours by the urine and the fæces, and the largest portion of it (viz., 98 per cent.) in the form of urea. The elements of which urea consists are therefore taken away, as it were, from the elements of the meat, while a very small portion is employed for the formation of other constituents of the urine and the fæces, the rest being completely oxidised or burnt. It therefore appears that, corresponding to the constant chemical composition of meat and urea, a constant quantity of oxygen is necessary for combustion, and that the oxygen contained in the products of combustion (viz., carbonic acid and water) must be in a constant proportion to the oxygen which is taken from the air and consumed for combustion. As we have no means for deciding how much of the water excreted has been formed by combustion, and how much may have been present before, we must look to the carbonic acid, which we can fairly assume to be only formed in consequence of combustion by the oxygen contained in the atmosphere, if meat is taken for food. If, therefore, the respiration is entirely made up by the meat from which urea has been separated, it follows that the oxygen contained in the carbonic acid eliminated must be in the same proportion to the sum total of oxygen taken from the atmosphere as is required by the organic remains of the meat after separation from it of the elements of urea. Now, 100 parts of meat (consisting of 75·9 water, 12·52 carbon, 1·73 hydrogen, 5·15 oxygen, 3·40 nitrogen, and 1·30 salines) give 7·285 parts of urea (consisting of 1·457 carbon, 0·485 hydrogen, 3·400 nitrogen, and 1·934 oxygen). 100 parts of meat, therefore, leave, after urea has been subtracted, a compound for combustion which contains 11·063 carbon, 1·245 hydrogen, and 3·027 oxygen. In order that these elements may be completely oxidised, 36·25 parts of oxygen are necessary besides the oxygen already present, and the result then will be 50·56 parts of carbonic acid and 11·21 water. In 50·56 parts of carbonic acid 29·5 parts of oxygen are contained. The sum total of oxygen necessary for combustion (viz., 36·25) bears the same proportion to that sustained in the carbonic acid generated (29·5) as 100 to 81·4. Now, it will be seen that this is almost identical with the average result of the experiments related above, which was 82.

The carbon contained in the carbonic acid eliminated does not quite correspond to the quantity of carbon contained in the meat after the subtraction of urea, a small portion being employed for the formation of other constituents of the urine and the fæces. But even if the carbon contained in them is added, there is yet a small portion left unaccounted for—*viz.*, 3·8 grammes in the twenty-four hours, corresponding to the carbon of 30 grammes of meat. It is scarcely possible to think that so much should be due to inaccuracy of experiment, as it is just the determination of carbonic acid in Pettenkofer's method, which is almost absolutely correct. It is, therefore, more probable that a certain quantity of fat is formed from the meat—an analogy for which is found in the formation of *adiposire* from meat under certain circumstances. If animals are fed with large quantities of meat, the whole amount of nitrogen reappears in the urine and fæces, while a considerable proportion of carbon does not reappear in the products of respiration and perspiration, but remains in the system. If the nitrogen is subtracted, the composition of the remainder very nearly resembles that of fat. At the same time it appears that the nitrogen of the atmosphere does not take any part in the waste of tissues, and that no free nitrogen is developed from the nitrogenous parts of the food and the body. Every atom of nitrogen which is taken in the food is eliminated by the fæces and the urine, and there is neither any perceptible quantity of ammonia either in the inhaled or exhaled air, nor is there any elimination of nitrogen from albumen and allied substances; but the nitrogen from the atmosphere merely walks in and out of the system, as it were, and the nitrogen introduced by food is eliminated by urea and other substances. Professor Pettenkofer intends undertaking another series of experiments, in which the daily food is to be 1500 grammes of meat, and quantities of fat varying from 30 to 150 grammes; after which the dog is to be fed—at first with 1500, then with 1000, and at last with 500 grammes of meat—when it will be possible to gain an insight into the way in which fat is deposited and withdrawn from the body—a most inviting subject in our days of Bantingism.

GENERAL CORRESPONDENCE.

POST-MORTEM EXAMINATION OF MR. J. ADAMS'S CASE OF INTESTINAL OBSTRUCTION.

Letter from Mr. John Adams.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your number for June 4 you published an abstract of a clinical lecture delivered by me on a case of intestinal obstruction, for the relief of which Amussat's operation was performed in December, 1861, in consequence of constipation, which had lasted eighteen days.

The patient, the subject of this operation, died on June 30; so that his life had been spared exactly two years and a-half after its performance. The body was examined, and the parts were removed, and it was found that the pelvis was filled with an immense quantity of schirrous substance, which, as far as the examination could be made, originated in the mesorectum, and had invaded the entire cellular tissue of the pelvis, pressing between the rectum and bladder, where I felt it during life, and with both of which it had evidently communicated.

I am not sure whether there is any case on record in which life has been prolonged to such an extent after this operation, performed in consequence of cancer. It goes far to elucidate the value of the operation in two respects—first, as affording immediate relief under circumstances so distressing, and next as proving (at least to my mind) the fact that even the progress of scirrhus itself may be retarded by diverting the fœculent matter in a direction different to that which nature has dictated. I am, &c., John Adams.

4, St. Helen's-place, July 13.

THE RECENT ELECTION OF MEMBERS OF COUNCIL AT THE COLLEGE OF SURGEONS.

Letter from Staff-Surgeon Loney.

[To the Editor of the Medical Times and Gazette.]

Sir,—The result of the recent elections at the College of Surgeons cannot surprise any one who has given to the subject a moment's thought. The candidates representing the Medical officers in the public service and the provincial element of the Profession were in a minority; whereas two candidates, representatives of the London Hospitals (I leave Mr. Hancock out of consideration, as one who had a clear right to re-election), were brought in by overwhelming majorities, including a very remarkable number of plumpers.

The reason is obvious enough. The Profession generally takes very little genuine interest in those members who belong to the public service, and those members are too frequently expatriated to take care of themselves; while the provincial men have been hitherto either too apathetic in making themselves acquainted with the peculiar working of the College system, or too indolent in taking those steps by which alone a reform can be obtained and their interests secured.

I observe by the public papers of Saturday last that, immediately after the election on Thursday previous, a number of Fellows met at the Freemasons' Tavern to deliberate on the best means of obtaining an alteration of the College charter, so as to allow proxies to be used at future elections. The power of voting by proxy would doubtless be greatly in favour of country Fellows; and for the very reason that the town Fellows know this, that power will not be so easily obtained as those gentlemen who met at the Freemasons' Tavern may imagine. With that experience of the very great difficulty of obtaining the redress of grievances which a long period of naval service has given me, I would beg to assure those gentlemen that if they expect to obtain the power of voting by proxy through any efforts hereafter to be made by the metropolitan members of the Council, they will be grievously disappointed.

No, Sir, instead of fruitless appeals to the Council, as at present constituted, let them earnestly resolve for the future

that the constitution of that Council shall be altered by the introduction of a majority of country Fellows pledged to reform. The power is virtually in their own hands, and by a determined exercise of that power they can obtain the desired result. But it will be an up-hill work, and they must undertake the trouble and incur the expense of a personal attendance at the next and future elections to secure it. A majority of country Fellows on the Council once secured, the power of voting by proxy may be sought for from the Council, but not until then.

Let the country Fellows but be true to themselves, and in future exercise the franchise more fully than they have hitherto done, and success will crown their efforts.

It will not be next year, or the year after, but the time must come when the studied mystery which now surrounds the monetary transactions of the College will be cleared up, and the extravagant expenditure in dinners and examiners' fees curtailed. I am, &c.

Wm. Loney, F.R.C.S., Staff-Surgeon, R.N.

Army and Navy Club, July 11, 1864.

THE ALLEGED BREACH OF PROFESSIONAL ETIQUETTE.

Letter from Mr. John Adams.

[To the Editor of the Medical Times and Gazette.]

Sir,—Referring to Mr. Jones' letter of the 30th ult. (see *Lancet* for Saturday, July 9), I beg to state that I have not "pleaded guilty," as he terms it, to any portion of his charge. The explanation I gave in my letter of the 21st ult. is perfectly true, and I am prepared to substantiate. Mr. Jones having complained of my letter to the *Medical Times and Gazette* of the 30th ult., in which I denied the truth of his statements, I have expressed my regret at the use of the words, but nothing more. I am, &c.

John Adams.

Letter from Mr. J. Jones.

[To the Editor of the Medical Times and Gazette.]

Sir,—Will you kindly insert the accompanying correspondence?

You will see that Mr. Adams still stoutly denies the truth of the statements contained in my letter to the College of Surgeons, which I, on the contrary, as persistently assert.

The action which my solicitors have commenced against that gentleman will afford us the opportunity—for which I am, and I should think Mr. Adams must be, most anxious—to have the question submitted to a jury; and I feel sure that Mr. Adams will not permit any technicality to be interposed so as to prevent the real question, "aye or no,"—are the statements "true" or "false?"—from being submitted for its decision. I am, &c.

J. Jones.

"London, 12, South-square, Gray's Inn, W.C.,
"July 4, 1864.

"Sir,—My attention has been directed to a letter purporting to be signed by you, which appears in the *Medical Times and Gazette* of Saturday last,—its terms are coarse, intemperate, and offensive.

"I have to ask whether you are in truth the author, and if so, I must insist upon its withdrawal, accompanied by an apology, to be first submitted to me, and then published in all the Medical papers.

"You should at the same time express your regret for your conduct on May 21 last, and which was brought by me to the notice of the President and Council of the College of Surgeons.

"If this is done the matter shall end so far as I am concerned; but if not, you had better direct your legal adviser to place himself in communication with my solicitors, Messrs. Langley and Gibbon, 32, Great James-street, Bedford-row, whom I shall instruct in due course.

"I am, Sir, your obedient servant, J. Jones.

"John Adams, Esq., St. Helen's-place, Bishopsgate."

"4, St. Helen's-place, July 6, 1864.

"Sir,—I beg to acknowledge the receipt of your letter of the 4th inst., in which you ask me to retract and apologise for expressions employed in my letter to the *Medical Times and Gazette*, which you designate as coarse and intemperate.

"You must remember that your insinuation of unprofessional conduct in your statement in the same paper provoked those expressions.

"Nevertheless—although I explicitly deny the truth of your statements—as I believe you have been influenced by erroneous information, I shall not hesitate to retract those hasty expressions contained in my letter.

"And, I need not say, this retraction necessarily implies an apology for the same.

"I have explained my conduct in Metzner's case in a communication I have sent to the *Medical Times and Gazette*, in answer to one from you.

"I am, Sir, yours truly, John Adams.

"Jno. Jones, Esq."

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, July 4.

Mr. Partridge, President.

Abstract of the Report of the Committee on Chloroform.

In laying their report before the Council of the Medical and Chirurgical Society, the Committee on Chloroform desire to state that they have made comparatively little reference to the Medical portion of the subject. This is not due to their thinking the Medical uses of chloroform of little importance, but to the fact that but few replies to their inquiries upon this point have been received.

In view of the great extent of the subject submitted to their consideration, the Committee directed their attention to such points as appeared to them of chief practical importance. Thus their observations respecting the action of chloroform on the nervous system, and their remarks on some other points, are less full than would have been desirable had the Committee regarded such details as of equal importance with those specially elected for investigation—such as its influence on the action of the heart and on respiration.

The Committee have chiefly confined their physiological report to observations which they have themselves made. Without overlooking or neglecting the labours of former investigators, they have endeavoured rather to furnish an accurate account of experiments which they have observed carefully and together, and to compare the results thus obtained and agreed upon with the phenomena of cases in which death or peril of life has arisen from the inhalation of chloroform in the human subject.

Physiological Conclusions.—The sequence of the phenomena produced by chloroform inhalation in animals is similar to that observed in man, and if the same percentage of the agent be administered, the results produced are nearly uniform. The first effect of chloroform vapour is to increase the force of the heart's action; but this effect is slight and transient, for when complete anæsthesia is produced, the heart in all cases acts with less than its natural force. The strongest doses of chloroform vapour, when admitted freely into the lungs, destroy animal life by arresting the action of the heart; whilst by moderate doses the heart's action is much weakened for some time before death ensues, respiration generally, but not invariably, ceasing before the action of the heart, death being due both to the failure of the heart's action and to that of the respiratory function. The danger attending the use of choloroform increases with the degree of stupor it induces; the apparent irregularities in the action of the anæsthetic mainly depending on the varying strength of the vapour employed, on the quality of the chloroform, and on the constitution of the patient. In order that it may be administered with comparative safety, it is necessary that the proportion of vapour should not exceed $3\frac{1}{2}$ per cent.; that its effects should be carefully watched, and the inhalation suspended when the required anæsthesia is induced.

In many respects the action of ether is similar to that of dilute chloroform. At first its vapour increases the force of the heart's action—an effect which is both greater and of longer duration than that observed with chloroform. The stimulation is followed by a depression of the force of the heart's action, but at the same degree of insensibility ether does not depress the action of the heart to the same extent as chloroform. Eventually ether kills partly by enfeebling the action

of the heart, but chiefly by arresting the movements of respiration. Thus the energy with which chloroform acts, and the extent to which it depresses the force of the heart's action, render it necessary to exercise great caution in its administration, and suggest the expediency of searching for other less objectionable anæsthetics. Ether is slow and uncertain in its action, though it is capable of producing the requisite insensibility, and is less dangerous in its operation than chloroform. On the whole, however, the committee concur in the general opinion which in this country has led to the disuse of ether as an inconvenient anæsthetic.

A mixture of ether and chloroform is as effective as pure chloroform, and a safer agent when deep and prolonged anæsthesia is to be induced; though slow in its action, it is sufficiently rapid in its operation to be convenient for general use. A mixture composed of three parts of ether, two parts of chloroform, and one part of alcohol (by measure), is to be preferred on account of the uniform blending of the ether and chloroform when combined with alcohol, and the equable escape of the constituents in vapour; and the committee suggest that it should be more extensively tried than it has hitherto been in this country.

Effects of Chloroform on the Fauces.—The sudden administration by the mouth of concentrated chloroform vapour induces a spasm of the fauces, which lasts for some seconds; afterwards, when the animal has inspired, the phenomena of asphyxia are for a time associated with those of chloroform poisoning, and death is finally induced as by dilute chloroform. If, however, partial insensibility is first induced by weaker chloroform, no spasm of the fauces ensues upon the sudden administration of the concentrated form of the agent.

Post-mortem Appearances.—Judging from the observations on animals,—the appearances in the human subject having been noticed in but few cases, and being insufficient for yielding satisfactory conclusions,—it appears that though there may in certain cases be an impediment to the free circulation of the blood through the lungs, yet the appearances are very different after death has been caused by chloroform from those observed when life has been destroyed by asphyxia. In death from chloroform, all the cavities of the heart are distended, and the cases are only exceptional in which the left side is empty. The rule, however, is alike in both—that the cavities of the right side contain more blood than those of the left.

Resuscitation.—The most certain means of restoring life after poisoning with anæsthetics is by artificial respiration. By this means resuscitation may generally be accomplished after natural respiration has ceased, provided the heart continues to act, and it may *sometimes* be effected even after the cessation of the heart's action; but this result is exceptional. Galvanism resuscitates within the same limits as artificial respiration; it is, however, far less to be relied on than artificial respiration in equal cases. With either remedy it is found that animals quickly rendered insensible by a strong dose are more easily recovered than those which have been gradually narcotised even by a small percentage of the anæsthetic.

Rules relating to the Administration of Chloroform.

The anæsthetic should on no account be given carelessly, or by the inexperienced; and when complete insensibility is desired, the attention of its administrator should be exclusively confined to the duty he has undertaken.

Under no circumstances is it desirable for a person to give chloroform to himself.

It is not advisable to give an anæsthetic after a long fast, or soon after a meal; the best time for its administration being three or four hours after food has been taken.

If the patient is much depressed, there is no objection to his taking a small quantity of brandy, wine, or ammonia, before commencing the inhalation.

Provision for the free admission of air during the patient's narcotism is absolutely necessary.

The recumbent position of the patient is preferable; the prone position is inconvenient to the administrator, but entails no extra danger. In the erect or sitting posture there is danger from syncope. Sudden elevation or turning of the body should be avoided.

An apparatus is not essential to safety if due care be taken in giving the chloroform. Free admixture of air with the anæsthetic is of the first importance, and, guaranteeing this, any apparatus may be employed. If lint, or a handkerchief, or a napkin is used, it should be folded as an open cone, or held an inch or an inch and a-half from the face.

The anæsthetic should invariably be given slowly. Sudden increase of the strength of the anæsthetic is most dangerous. Three and a-half per cent. is the average amount, and four and a-half per cent. with ninety-five and a-half of atmospheric air is the maximum of the anæsthetic which can be required. Given cautiously at first, the quantity, within this limit, should be slowly increased according to the necessities of the case, the administrator being guided more by its effect on the patient than by the amount exhibited.

The administrator should watch the respiration of his patient, and should keep one hand free for careful observation of the pulse.

The patient who appears likely to vomit whilst beginning to inhale the anæsthetic should be at once brought fully under its influence, and the tendency to sickness will then cease.

The occurrence during the administration of an anæsthetic of sudden pallor or of sudden lividity of the patient's countenance, or sudden failure or flickering of the pulse, or feeble or shallow respirations, indicates danger, and necessitates immediate withdrawal of the anæsthetic until such symptoms have disappeared. On the occurrence of these symptoms, and especially if they should become so urgent as to threaten death from failure of respiration, of heart-action, or of both together, the following rules of treatment are to be observed:—Allow free access of fresh air; pull forward the tongue, and clear the mouth and fauces; keep or place the patient recumbent; dash cold water on the face and chest, and aid the respiratory movements by rhythmical compression of the thorax. In the more threatening cases artificial respiration must be commenced instantly; and this rule applies equally in all cases, whether the respiration has failed alone, or the pulse and respiration together. Galvanism may be used in addition to artificial respiration, but the artificial respiration is on no account to be delayed or suspended in order that galvanism may be tried.

Few if any persons are unsusceptible of the influence of chloroform, from two to ten minutes being required to induce anæsthesia. The time, however, varies with age, temperament, and habits.

The mixture of chloroform, ether, and alcohol should be given in the same way as chloroform alone; care being taken, when lint or a handkerchief is used, to prevent the too free escape of the vapour.

Use of Chloroform in Surgical Operations.

With heart-disease the anæsthetic may be given in any case which requires an operation, although when there is evidence of a fatty, weak, or dilated heart, great caution is demanded. Valvular disease is of less importance.

In phthisis, when an operation is unavoidable, the anæsthetic may be given with impunity.

For all operations upon the jaws and teeth, the lips, cheeks, and tongue, the anæsthetic may be inhaled with ordinary safety. By care and good management the patient may be kept under its influence to the completion of the operation. In these cases, blood, as it escapes, if not voided by the mouth, passes into the pharynx. If any small quantity finds its way through the larynx, it is readily expelled by coughing. In operations upon the soft palate, fauces, pharynx, and posterior nares, if sudden or severe hæmorrhage is likely to occur, it is not advisable to induce deep insensibility.

In cases requiring laryngotomy and tracheotomy the anæsthetic may be employed with safety and advantage.

For operations upon the eye, involving the contents of the globe, the use of anæsthetics is open to objection on account of the damage which the eye may sustain from muscular straining or vomiting. If employed, profound insensibility should be induced.

In operations for hernia, and in the application of the taxis, the anæsthetic acts most beneficially. For most operations about the anus profound anæsthesia is positively demanded.

In the condition of shock, or of great depression, as after hæmorrhage, careful administration of the anæsthetic diminishes the risk of an operation.

In all cases, other than those specially referred to, it is sufficient to state, so far as a mere Surgical operation is concerned, that an anæsthetic may invariably be administered.

The continuous vomiting occasionally induced by and following upon the inhalation of anæsthetics, may be injurious by consequent exhaustion, as well as by mechanically disturbing the repair of a wound. With this reservation they do not appear to interfere with the recovery of patients from Surgical operations.

Statistics.—The results of 2586 capital operations performed before, and of 1860 performed since, the introduction of anæsthetics, collected from all authentic available sources,*

* Appendix D to the Report.

prove that anæsthetics have in no degree increased the rate of mortality.

Use of Chloroform in Obstetric Practice.

(*a*) *In natural labour.*—The careful administration of chloroform during labour is not attended with special danger, there being, either in this country or abroad, so far as is known to this committee, no well-authenticated instance of sudden death where it has been given by a Medical practitioner; but the occasional occurrence of unfavourable symptoms demands the exercise of caution during its employment. Administered in a moderate degree, it does not, as a rule, weaken the expulsive powers, and is decidedly beneficial in promoting dilatation of the maternal passages. It does not predispose to puerperal convulsions or other like complications. The balance of opinion is nearly equal as to whether it predisposes to imperfect contraction of the uterus after delivery. As a rule, it in no way retards the convalescence of the mother; nor has it any tendency to interfere injuriously with the function of lactation; nor has it any injurious influence on the child.

(*b*) *In abnormal labour.*—The anæsthetic may be employed with advantage in various obstetrical operations—as forceps, turning, craniotomy, and extraction of retained placenta—unless the patient is much enfeebled by hæmorrhage; when, if given, it ought to be accompanied by the use of stimulants. It may also be employed advantageously to check the paroxysms in puerperal convulsions.

(*c*) *As to the preference of ether. Rules relating to the administration of chloroform.*—There are no reasons for giving preference to ether over chloroform, the latter being much more desirable in obstetrical practice generally, the only exceptions being those in which chloroform notably disagrees.

In addition to those given for its administration in ordinary cases, it is generally desirable to observe the following rules during its administration in labour, subject to modifications at the discretion of the Practitioner:—In natural labour, begin to give it generally at or after the termination of the first stage; but it may be given earlier if the first stage is unduly painful, or if the os uteri resists dilatation. Give it only during the pains, and withdraw it in the intervals. When the fœtal head bears on the perineum, give it more freely to promote relaxation and relieve the increased pain. Withdraw the chloroform immediately after the child is expelled. If the patient is depressed or the pains are sluggish during its administration, an occasional stimulant may be administered. In cases where it seems to interfere with the progress of labour it may be necessary to suspend its use for a time, and reapply it after an interval, or even to withdraw it altogether. In turning and instrumental deliveries deep anæsthesia must be induced, as in Surgical operations, and the administration should then be entrusted to a competent person, whose sole duty should be to attend to it. In midwifery a special inhaler for its administration is not generally necessary or desirable, a handkerchief or towel, so folded as to prevent blistering of the face and to allow free admixture of atmospheric air, being sufficient for the purpose.

(*d*) *Use of Chloroform in Diseases of Women and Children.*—In the treatment of diseases of women, chloroform may be employed to facilitate and lessen the pain of certain examinations. In cases of spurious pregnancy and phantom tumours, by relaxing the abdominal parietes, it may assist in demonstrating their true characters; and, acting in the same way, it may help the Practitioner to define more accurately the character and relations of other abdominal and pelvic tumours, or to detect feigned disease.

As a therapeutic agent, its inhalation, and external application in the form of a liniment, may be usefully employed to allay pain in some cases of severe dysmenorrhœa, neuralgia, and the like.

There is accumulated testimony in favour of chloroform inhalation proving serviceable in various spasmodic diseases of women and children: as whooping-cough complicated with convulsions, spasmodic croup, epileptic seizures and some other forms of convulsions in children; hysterical convulsions, epilepsy, and various muscular contractions in women.

The President expressed in warm terms the obligations the Society were under to the Committee for their able and laborious report.

Mr. Curling regretted that so much time had elapsed since the Committee had been formed; but, as would appear when the paper and the appendix were printed, much more work had been done than would seem from the part of the abstract which had been read. There had been a division of labour into three chief departments—physiological, surgical, and obstetrical. But the most work had been done by the first section, the physiological. This section had had seventy meetings, and had performed very many careful experiments. When all this was taken into consideration, the Fellows would not be surprised that the report had been delayed. The Committee wished to acknowledge the support afforded by many Fellows of the Society, and by the Profession generally. Mr. Curling said that he must allude more pointedly to the labour of the reporters of the Committee, Mr. Sibley and Mr. Callender. These gentlemen had attended all the meetings of the Committee, and it was, after hearing the report read, scarcely necessary to express any opinion as to the great zeal, devotion, and intelligence they had displayed.

Dr. Kidd said he was most ready to acknowledge the great debt of gratitude due to Mr. Curling and the Physiological Committee for their incessant labours, yet he could not help thinking the chloroform question at present was more one of practical observation in Hospitals than a question of pure physiology. We had similar experiments in great numbers in books, but the deaths in practice were not so much from deep poisoning as in these experiments, or from large doses, but rather from small doses,—emotion, fright, idiocyncracy, causing spasm of air passages, and apnœa. The deaths were almost always in trivial operations, and not from the deep effects of an hour's narcotism, as in some operations—for instance, ovariotomy. He agreed as to the statistics as to the effect on the rate of mortality, but he thought the report was deficient in the 122 deaths, as there were 250. Physiological experiments were fallacious, as it was the experiment which killed, but not the chloroform. Then as to the anæsthetic "mixtures." They had been used extensively in Austria and France, even by order of Government, but they had caused disappointment. The ether is first inhaled, then the chloroform and the spirits of wine remains on the sponge and has to be squeezed out. They tend towards mystery, and were cumbrous. As to the midwifery portion of the report, it did not offer much that was new, yet it was very valuable; and so, too, of the general Surgical part. As to chloroform in Medicine, it is most valuable in asthma, pain of gall-stones, convulsions of children, tetanus, epilepsy. Chloroform was wonderfully safe in children, as they were free from mental emotion, free from delirium tremens, deficient reflex action. etc., the three chief causes of accident. There was now less arterial but more venous bleeding at operations, and chloroform was safer in collapse than perfect health, the "law of tolerance," so well known, though apparently contradictory. Dr. Kidd fully agreed as to the value of artificial respiration in accidents, but the best is set up by electromagnetism. He was glad the report had also found that resuscitation was much more difficult from ether than from chloroform.

Dr. Hyde Salter said a point had been overlooked, but one which it was not possible for the Committee to have investigated in so short a time as they had taken for their report. It was as to the effect on the human constitution of chloroform administered for months or for years. He offered this as a suggestion for further investigation. Dr. Salter then related the case of a gentleman who for three years had regularly taken chloroform nearly every night. The effects were somewhat like those of alcohol taking—general loss of nervous power, insomnia, and vomiting in the morning. The chloroform was taken for asthma, and sometimes as much as three ounces were inhaled in one night. The effect was most distressing. The patient lost appetite, became morose, and was unable to sleep. He for one month was able to avoid it, and the improvement was most marked. He got to sleep earlier and earlier every night. This, however, the patient ascribed to Indian hemp, which he took at the time; but on taking the chloroform again he again had insomnia, and Indian hemp failed to help him. The vomiting in the morning was like that of drunkards. Dr. Salter considered that in other respects the effects would be found to resemble those of alcohol.

Mr. Savory asked under what circumstances and to what extent in collapse from injuries or from hæmorrhage chloroform might be administered. It was true that it would tend to diminish shock, but it would, on the other hand, be likely to render the pulse almost imperceptible. It was a point of great interest that chloroform tended to reduce the temperature, even as some experiments showed, seven or eight degrees. In collapse, too, the temperature was diminished; and hence, if chloroform were given, there were two conditions tending to the same result.

Dr. C. J. B. Williams said there could be but one opinion

as to the great debt the Society owed to the Committee—a debt which the Society was scarcely able fully to appreciate until the publication of the report. One important point was, however, settled—that chloroform depressed the action of the heart. This was an important result, as it had been much disputed. It accorded with the results of experiments he (Dr. Williams) had performed, and again the histories of cases of death from chloroform all converged to the same point. This in itself helped us to suggest methods of counteracting the effect of too large a dose. One obvious method was to add ether and alcohol to the chloroform. But there was no reason (Dr. Williams said) why alcohol, ammonia, or any other stimulant should not be given by the mouth. Oxygen had been suggested, and had, it was said, been used in America with success, and it was not improbable that chloroform and oxygen might be a useful and safe combination. One anæsthetic had not been alluded to—viz., nitrous oxide. From his (Dr. Williams') observations some years ago, it appeared to be not so depressing, and it was safe. But there were difficulties in procuring it and in applying it. Dr. Williams then alluded to the effect of chloroform on the blood, and asked what researches the committee had made in this part of the subject.

Dr. Kidd said that two deaths had been noted from nitrous oxide, so that it was probably not very safe. There had been extensive experience of stimulants, as ammonia wine, before chloroform administration, and the plan is a good one. The effect of chloroform on the blood was well known; it did not affect it; but not so with ether, it destroyed the corpuscles, and was dissolved and might be distilled from the blood of an animal deeply narcotised; not so chloroform, hence one objection to mixtures. The best mixture was to bring a patient quickly under chloroform and continue the anæsthetic effect with ether. Oxygen had been tried, but "found wanting;" the blood does not require it, at least in chloroform accidents, the state is allied to hybernation, the blood healthy; not so, however, under carbonic oxide or ether. Dentists' assistants and students apply chloroform—young men innocent of the alphabet of anæsthetics—they do not detect the idiosyncrasy or the danger impending from apnœa early enough, and they trust too much to the complex apparatus. To them, "mixtures," like the new Pharmacopæia, will be a sort of drag to a wheel to impede anæsthetic progress; they wait for the heart stopping, or dread heart disease only, but the heart is scarcely at all if at all effected by chloroform in Surgical practice. Ether has been given up even in America—its birth-place—chloroform is so superior, though the opposite was stated recently in College lectures, so also is nitrous oxide.

Dr. Wynn Williams recommended that in the collapse of chloroform warm port wine should be injected by a Dr. Barnes's tube. He had tried this in collapse from other causes, and had found it to act energetically. It seemed, he thought, to meet Mr. Savory's remarks by increasing the warmth and by giving a stimulant at the same time.

Dr. Ballard objected to that part of the report in which the use of chloroform in the convulsion of children was recommended. He was satisfied that it had no beneficial effect, and asked if its use had been recommended after a trial in cases.

Mr. Curling said that it was not recommended that chloroform should be given until reaction set in after injuries; but that it acted beneficially in the operation by diminishing shock. In reply to Dr. Ballard, he said that the recommendations of the Committee were based on a series of facts, and after a large experience.

Dr. Harley said the action of chloroform on the corpuscles was but slight, but if ether were added it dissolved the walls of the corpuscles. It had been observed by Dr. Jackson, of New York, that chloroform produced formic acid in the system, but it was impossible to trace the change. If blood were shaken up with ether, it would sometimes crystallise. Diseased blood would also sometimes crystallise spontaneously, while blood after slow death from chloroform, when shaken up with ether, always became a mass of crystals.

Dr. Harley then introduced to the notice of the Society an inhaler sent to him by Dr. Skinner, of Liverpool, and also an ingenious apparatus invented by Dr. Squire for measuring accurately the percentage of chloroform.

Dr. Pearson said that he was surprised to find that chloroform was more feared here than in Edinburgh, where it was invented. In Edinburgh apparatus were altogether disregarded. He felt certain that it was safer to give chloroform without an inhaler than with one.

Dr. Hyde Salter said that chloroform might be given so as to prevent pain, and yet not to produce insensibility. For this he could vouch, as he had experienced it himself. If, then, it could be discovered how to do this, it would lessen not only the risk, but diminish the fear of the use of the drug.

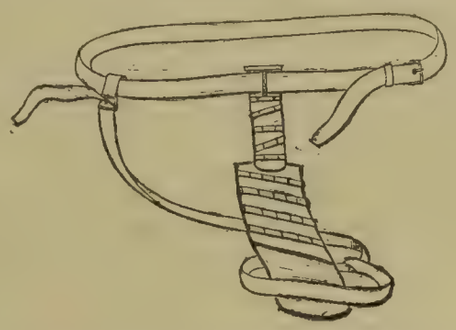
Dr. Wight said the inhaler had been used a year in Mr. Spencer Wells's ovariotomy operations, but it was liable to the objection that a good deal of the chloroform escaped, and thus affected the bystanders.

Mr. Birkett, one of the honorary secretaries, said that it had been impossible for him to read the whole of the abstract, but he had only omitted those parts which the reporter had agreed should be omitted.

NEW INVENTIONS.

DR. ARTHUR'S HERNIA SPLINT.

Dr. Arthur, of Chelsea, has submitted to us a splint invented by him for the cure and relief of hernia, of which the accompanying is an engraving. This instrument is about



eight inches long, and is formed for one-half its length of right and left oblique stop hinges, the groin hinges running all in the same direction downwards and inwards. It is fastened to the waist by a strap, and to the thigh by another strap, which, after encircling it, is buckled to the waist-strap, and prevents any tendency to slipping downwards. This instrument keeps up a uniform pressure from below upwards, and is never changed from its proper position on the hernia by any of the various movements the body and thigh may be made to undergo. The inventor believes that this instrument will entirely supersede the spring truss.

MEDICAL NEWS.

King and Queen's College of Physicians in Ireland.—Pass-list for half-year ending June 30, 1864:—

Henry Wellington, Henry Thomas O'Reilly, William O'Reilly, James Atkinson, James M'Creery, Joseph John Thompson, James Smith Harris, Louis Arthur Fleury, Richard James Sweetman, James B. Kelly, Albert Benjamin Robinson, Thomas Charles Kirby, Richard Kerr M'Clement, James Stewart, William Winslow Tomlinson, Gerard O'Toole, John Joseph Verdon, Henry Head, Patrick Byrne, William Edward Riordan, Charles Healy, William Whittaker, Joseph Septimus Steward, Richard Alfred O'Brien, Robert Lafayette Swan, John Gray, Charles Backhouse, Francis Bonnay, Robert Kevans, Richard O'Reilly, and Thomas Chalmers Peebles.

Dr. T. W. Belcher was elected a Fellow on June 4, 1864.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, July 7, 1864:—

Francis Snaith, St. Thomas's Hospital; Albert Egerton Hale, Nantwich, Cheshire; Thomas Sibley Stott, St. Bartholomew's; John Thompson, University College.

As an Assistant:—

James Crocker, Dorchester.

The following gentlemen, also on the same day, passed their First Examination:—

Henry Aubrey Husband, St. Bartholomew's; Robert Robinson, St. Bartholomew's; John Henry Simpson, St. Bartholomew's; Anthony Herbert Martin, University College; Francis Stewart Manisty, King's College.

Foreign Recognition of Professional Merit.—Professor Laycock, of Edinburgh, has just been elected Corresponding Member of the Royal Academy of Medicine of Turin.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ALLINGHAM, WILLIAM, F.R.C.S. Eng., has been appointed Consulting Surgeon to the British Orphan Asylum.

LEWIS, D., M.R.C.S. Eng., has been elected Resident Medical Officer to the Dispensary, Newport, Monmouthshire.

LOUGHNAN, CONNELL F., M.D. Glasg., has been appointed House-Surgeon to the North Dispensary, Liverpool.

DEATHS.

BIRD, JAMES, M.D. Aberd., late Physician-General to the Bombay Medical Board, at Fern Acre Lodge, Gerrard's Cross, Bucks, on July 10, aged 67.

BURRIDGE, REGINALD, M.D. Edin., at High-street, Taunton, on June 28, aged 51.

GRIFFIN, GEORGE, Surgeon, late of the 25th Regt., at Quebec, Canada, on April 26.

HARRISON, ARTHUR A., M.B. Cantab., on board the *Macgregor Laird*, from Abbeokuta, West Africa, on June 12, aged 33.

MARRIOTT, Dr., at Stuttgart, late of Basle, Switzerland, on July 4, aged 56.

PRIZE QUESTIONS.—The Lyons Medical Society has offered prizes of 300 francs for the best essay on each of the following subjects:—1. The transmission of disease from the mother to the fœtus, and reciprocally; 2. The influence exercised on the public health by the manufacture of aniline and the products prepared from it. The essays should be forwarded to the secretary before August 14, 1865.

PARIS REGISTRATION RETURNS.—From the publication for the year 1862, issued at the Hotel de Ville, it appears that there were 52,312 births (26,505 male, and 25,507 female), and 42,185 deaths (the births thus exceeding the deaths by 10,127), and 15,916 marriages. The population of the twenty arrondissements amounted at the last census to 1,696,141.

ANTHROPOLOGY.—The second edition of M. Pouchet's work, "De la Pluralité des Races Humaines," has just been published in France.

BROWN *v.* FREEMAN.—Vice-Chancellors' Court, July 12, before Vice-Chancellor Sir P. Wood.—The object of the suit was to restrain the defendant from selling any medicine, not being chlorodyne of the plaintiff's manufacture, under the name of "The Original Chlorodyne," or so as to represent the article to be chlorodyne manufactured by the plaintiff. The Vice-Chancellor in giving judgment said he believed that the plaintiff was speaking with perfect truth when he announced himself as being the first and true inventor, and he neither believed nor approved the defendant's counter assertion that he was the inventor; but the case did not come within those in which this Court had interfered, and the bill must be dismissed, but without costs.

A CAUTION TO SURGEONS WANTING ASSISTANTS.—On Friday, July 8, before Mr. Justice Erle and a special jury, in the Court of Common Pleas, at the Guildhall, there was a case tried which is interesting to the Medical Profession at large. Thomas Nicholas Gray, who described himself as "late of the Federal army," and of Dublin, sued Mr. J. Morris, of Adelaide-terrace, Barking-road, Essex, for £52, or a year's salary at £1 per week, which sum Gray alleged was due to him, because Mr. Morris had refused to accept his services after having engaged him. The plaintiff swore that he had applied for a situation through Mr. Langley, of Lincoln's-inn-fields, and had been put into communication with Mr. Morris through him on April 4; that Mr. Morris had said that he would engage him, but would write to his references, whom the plaintiff admitted were not professional men. He swore that after a lapse of three weeks the defendant had sent him a letter stating that his (Mr. Morris's) brother-in-law had consented to remain with him, and that consequently he would not require the plaintiff's services. He further alleged that his references had been written to, and that as he was satisfied their replies were satisfactory, he claimed a year's salary for non-fulfilment of contract, and brought this action to recover it. The defendant being sworn, declared that Gray did not come to him until April 28 (not the 4th, as sworn by plaintiff), and that he had written to Dr. Ledwick, of Dublin, whose name had been mentioned by Gray as a reference, and had received a reply advising him to have nothing to do with the plaintiff, but at the same time desiring him not to mention his (Dr. Ledwick's) name in the matter. On this account he (Morris) had written the letter produced. He declined to engage Gray because this reference was unsatisfactory. Mr. Langley, Medical agent, of Lincoln's-inn-fields, corroborated Mr. Morris as to the date of the application, and thus destroyed the plea set up by plaintiff that he had been kept waiting for three weeks by the defendant. He proved also that a month's salary only could be claimed according to custom, consequently that to demand a year's salary was an attempt at extortion; and further, that if an engagement had been concluded there would have been a fee due to him (Langley), which had never been tendered or paid, and which he had never considered to be due and had never applied for or entered on his books. When the plaintiff applied at the office, Mr. Langley had told him that his testimonials were insufficient, and that he must give Mr. Morris better references than those offered. The judge, in summing up, pointed out that if such an action as this could be sustained no employer of any kind—even a lady engaging a maid—would be safe. The jury, after a brief consultation, returned a verdict for defendant, Mr. Morris. We regret to learn, however, that the defence of the action has cost Mr. Morris a considerable sum of money, and that there is no probability of his recovering the costs from Thomas Nicholas Gray, late of the Federal army.

ROYAL COLLEGE OF SURGEONS.—The Fellows of the College, both metropolitan and provincial, will no doubt be surprised to learn that out of the 286 gentlemen who voted on the 7th inst. for election of Fellows into the Council, only sixty-eight attended from the provinces; in fact, the number altogether was less on the present than on former occasions, with the exception of naval and military Fellows, of whom as many as twenty-one attended to uphold the honour of the cloth in Mr. Gulliver. So long as provincial Fellows display this apathy in personal attendance, their chances of having a country representative will be very remote. It must, however, be gratifying to Mr. Turner and his friends to find he had no less than eighteen plumpers. At the dinner which took place the same evening at the Albion Tavern Mr. Turner was the only unsuccessful candidate present. He greatly increased his popularity by the good-humoured speech he delivered in reply to Mr. Le Gros Clark, who proposed his health in eloquent terms in connexion with the provincial schools. When he rose to reply he was received with great applause. Mr. Turner commenced by thanking the London Fellows on behalf of the provincial Fellows for the kind manner in which they had responded to the toast, and thanked Mr. Clark for having so courteously spoken of him personally, and alluded to their respective positions that day, Mr. Clark as the successful candidate for the Councillorship, whilst he (Mr. Turner) was the unsuccessful; but although conquered he was not cast down, and if called upon to defend himself in speech he would not use the words of bitterness, or if called upon to write he would not dip his pen in gall, but in the milk of human kindness. Rivalry was a part of the battle of life, and if conducted honourably the result must be submitted to. Mr. Turner alluded in unmistakeable language to the disadvantageous position of the provincial in comparison with the London Fellows, and warmly referred to the necessity of facilitating the admission of Fellows upon other terms than those requiring a long residence in London after becoming a member of the College, terms which could not in many cases be complied with. Mr. Turner dwelt on the necessity of progress in privileges in the ratio of the increasing intelligence of the Profession; to stand still, said he, is to retrograde. The chairman alluded in his speech to the state of Medical associations a century ago, and compared them with their condition at the present time; taking up that line of argument, he (Mr. Turner) would ask, what was the state of the College of Surgeons 100 years ago? Our predecessors were "Barber Surgeons," and barber Surgeons we should have remained, had not knowledge advanced and privileges been ceded to the College. Mr. Turner, in carrying on this argument, drew a picture of the Royal College at the present period, alluding to its architecture, its noble museum, its library and other stores—all these results were evidences of the labours of Hunter, Abernethy, Cline, Cooper, Bell, Brodie, and a host of other worthies whom we should do well to imitate. In the analysis made of the different candidates for the Councillorships, Mr. Turner was announced as a reformer—and so I am, said he, in the virtuous and legitimate meaning of the appellation, but contended that reform and conservatism must go hand in hand—he was an advocate for progress, not consisting in violent and sudden changes, but in such progressive alterations in the statutes and the machinery by which

they were worked as would meet the circumstances of the times in which we lived, the growing intelligence of the people, the dignity of our Profession, and the urgent demands of justice. There were about 150 Fellows present at the dinner; the chair was filled by Mr Arnott. The general arrangements of the festival reflect great credit on the indefatigable Honorary Secretary—Mr. E. C. Hulme—who has proved himself a worthy successor of Mr. Callender. Mr. De la Garde, of Exeter, has consented to preside next year. Having alluded to the general apathy of the Provincial Fellows, it is only an act of justice to refer to some men, who, regardless of all personal inconvenience, always attend these elections, as Messrs. Wiblin and Osborn, of Southampton; Garstang, of Clitheroe; Spooner, of Blandford; W. Druitt, of Wimborne; Turner, Lund, Blackmore, Southam, Hallon, and Bates, of Manchester; Paget, Leicester; Cardell, of Salisbury; De la Garde, of Exeter; Chesman, Sheffield; Cornish, Taunton; Mayo, Winchester; Prankerd, of Langport; Wood, of Shrewsbury; Wybrants, of Shepton Mallet.

ROYAL COLLEGE OF SURGEONS.—The annual meeting of the Council for the election of officers took place on the 14th inst., when Mr. Joseph Hodgson, F.R.S., of Westbourne-terrace, was elected President of the College in the vacancy occasioned by the retirement of Mr. F. C. Skey, F.R.S., of St. Bartholomew's Hospital; and Messrs. Thomas Wormald, of the same Hospital, and Francis Kiernan, F.R.S., were elected Vice-Presidents for the ensuing year. At this meeting of the Council, Messrs. Thomas Blizard Curling, F.R.S., of the London Hospital, and Frederick Le Gros Clark, of St. Thomas's Hospital, the recently-elected Councillors, were sworn in, and took their seats. The last primary examination before the close of the session commenced on Friday, and the last pass examination for the diploma of Membership commences on Saturday, the 23rd inst.

THE AMOROUS DOCTOR.—The Vienna *Ost. Deutsche Post* relates the following amusing anecdote:—"A Doctor, who has not very long settled in one of the Vienna faubourgs, had among his patients a young lady of seductive beauty. Our young Esculapius fell passionately in love with her, but, being timid, dared not avow his passion. His silent sufferings, however, impelled him at last to compose a *billet-doux*, in which the depth of his affection was set forth in the most ardent manner, and this next day he furtively deposited on the beauty's toilette table and rapidly disappeared. Judge of his amazement when, on returning home in the evening, he found his note returned to him, with the singular annotation, 'None of these articles found in the Pharmacopœia.' The explanation is, that the young lady's maid, observing the Doctor depositing his paper, and believing it to be a prescription, took it to the *pharmacien*, who, a discreet man, wishing not to compromise the Doctor, inclosed it to him with the above annotation."

INCREASE OF INSANITY.—The following facts appear in the annual report of the Commissioners in Lunacy to the Lord Chancellor, which has just been published. These gentlemen state that in January, 1849, the number of insane in our asylums amounted to 14,560, and in January last they had risen to 28,285. Fifteen years ago there were in asylums of every description 10,801 paupers, whereas we have now as many as 22,958 belonging to this class. The singular disproportion between the sexes in pauper and private patients deserves notice. Three years ago the women exceeded the men in the pauper class, and in the private just the reverse. According to the last return, in the pauper class the number of women exceeded that of the men by 2000. In the private class the number of men exceeded that of the women by 795; whereas, in 1849, the number of females exceeded that of the males in this class. The explanation of this circumstance was due to the introduction in former returns of several classes of male patients not previously included—as, for instance, those belonging to the army and navy. Another very important and remarkable statement, as showing the public estimation of private and public asylums respectively, is exhibited in the fact that fifteen years ago there were in licensed houses nearly as many patients as in Hospitals and county asylums; whereas we now find that in the latter there are more than five times as many patients as in the former. On January 1, 1849, there were 6931 patients in private asylums and 7269 in public. In the former there are now only 4455, and in the latter as many as 23,830. The Commissioners in Lunacy exercise a watchful care over the welfare of 44,695 persons of unsound or defective intellect.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. Richard McCormick.—South's "Household Surgery" and Graham's "Domestic Medicine."

Hospital for Stone.—We are informed that the report which appeared in the *Morning Post* was correct, and two letters confirming its accuracy from persons who were present have appeared in that journal. It is fair, however, to add that at a later period of the evening Mr. W. Coulson made a public withdrawal of his charge against the general Hospitals. He having done so, it is only charitable to take no further notice of the matter.

Dr. James Young.—The paper should be forwarded to us. If approved, it shall appear as early as the crowded state of our columns will permit.

A Student.—The College of Physicians was founded in 1522, the College of Surgeons in 1541, and the Apothecaries in 1616. Quarantine was introduced by the Venetians in 1437.

Tobias Smollett.—Professor Owen entered the Royal Navy as a midshipman, and Professor Huxley entered the same service as an Assistant-Surgeon.

Obstetrician.—The Cæsarean operation was proscribed by a law of Numa, and temples erected to improvers in Medicine and Surgery.

United Kingdom Alliance.—The manifesto has been received. Dr. J. B., on the same subject, is informed that Lettsom ascribed health and wealth to water, happiness to small-beer, and all diseases and crimes to the use of spirits.

Dr. Davis is thanked. He will see that his suggestion has been adopted. The *London Medical Gazette* is incorporated in the *Medical Times*. The word "Gazette" was derived from the name of the small Venetian coin which was the price of the first newspaper.

A First Year's Man had better write to the Secretary of the Hall or of the College of Physicians, who will tell him when the next Preliminary Examination will take place. If successful, there will be no occasion to undergo the examination at the College of Surgeons.

A Guardian is answered above.

Audi alteram partem.—Manchester.—The statement in the journal alluded to is incorrect, the examiners do *not* receive the sum of £600 per annum each, neither is the sum of £6000 annually divided among the ten gentlemen. Had the writer referred to the last return of the receipts and expenditure, he would have found the following item:—College Department, including fees for Council, Examinations for Diploma of Member, Dental and Midwifery Boards, Auditors, Fellowship, Diploma Stamps, List of Members, coal, salaries, wages, etc., £7585 5s." Lastly, the gentlemen do *not* dine before each examination at the corporate expense.

M.D.—"The Gold-headed Cane" was from the pen of William Macmichael, M.D., a member of Christ Church. The following inscription appears in the copy belonging to the Radcliffe Library:—"For the Radcliffe Library, Oxford, from the author, who was one of the Radcliffe traveling Fellows from 1811 to 1821. London, June, 1834." The following is the epitaph alluded to by our correspondent:—

> "Here, ripe in years, in wisdom mellow,
> Reposeth one most learned 'Fellow,'
> Who drew an intellectual feast
> From musty tomes in Pall-Mall East:
> Then wrote a book to prove his knowledge,
> And praise the Fellows of the College."

The cane is Malacca, and was carried by Radcliffe, Mead, Askew, Pitcairn, and Baillie, and by Mrs. Baillie presented to the College of Physicians. The arms of the celebrated Physicians are engraved on the head of the cane.

Mr. D. Clark.—Every *registered Practitioner* (with the exception of Fellows and members of any College of Physician that has enacted a bye-law to the contrary) can recover according to his qualification or qualifications, irrespective of the University, College, or Licensing Body from which the qualification has been obtained. The words of the Medical Act (sect. xxxi.) are:—"Every person registered under this Act shall be entitled, according to his qualification or qualifications, to practise Medicine or Surgery, or Medicine and Surgery, as the case may be, in any part of her Majesty's dominions, and to demand and recover in any court of law, with full costs of suit, reasonable charges for Professional aid, advice, and visits, and the cost of any medicines or other Medical or Surgical appliances rendered or supplied by him to his patients." In our opinion, therefore, the statement of the writer in the *Durham Chronicle* is clearly incorrect.

GRIFFIN TESTIMONIAL FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following subscriptions have been further received on behalf of the above fund:—Hy. Ewen, Esq., Wisbeach, 10s.; A. B. Ewen, Esq., Wisbeach, 10s.; J. Smart, Esq., Bethnal-green, £1 1s.; Robert Cuff, Esq., Holborn, 10s. 6d.; Jno. Blundell, Esq., St. Helens, Lancashire, £1; J. Bryant, Esq., Clerkenwell, 5s.; Dr. W. Garstang, Blackburn, 10s.; Robt. Lamb, Esq., Islington, 5s.; R. W. Watkins, Esq., Towcester, 10s. 6d.; Dr. J. T. Barrett, Ashton-under-Lyne, 10s.; S. E. Piper, Esq., Darlington, £1 1s.; A. D. Harston, Esq., Islington, £1 1s.; Dr. J. Rogers, Strand,

£1 1s.; Dr. Whiteman, Putney, 10s. 6d.; G. E. Nicholas, Esq., Wandsworth, 10s. 6d. Amount previously announced, £7 2s.

I am, &c.

ROBERT FOWLER, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, July 13.

ASSISTANT-SURGEON TEMPLE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Noticing at page 39 of your journal of this date an allusion to the gallant conduct of Assistant-Surgeon Temple, I think the enclosed extract from a letter written by one who was present at the scene described during the assault on Rangiriri will be interesting to your readers.

July 9. I am, &c. M.D.

"After the outworks were passed, and when there was difficulty of getting further, the General ordered the artillery, who were still with their guns 600 yards off, to come up with their revolvers and try to get in. It was in attempting to do so that Capt. Mercer received a dangerous wound in the face, and with other wounded men lay in a position that was most critical, as every person who had passed by this narrow opening in the enemy's works had been shot (excepting Pickard, R.A.). Dr. Temple came up to the place, and was stopped with a warning 'that the other men who had passed had been shot.' He asked if Capt. Mercer was not there wounded, and was told yes. He then inquired if others were not there wounded, and was told they were. He then said 'I'll go,' and immediately after (some shots being fired by our men to divert the Maories) ran across the opening and attended to poor Mercer."

THE MODE OF VOTING AT THE ELECTION TO THE COUNCIL OF THE COLLEGE OF SURGEONS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I am glad to see that an effort is being made to induce the Council of the College of Surgeons to permit Fellows to vote at elections by proxy-papers.

At present this boon is asked only for provincial fellows, but why not extend the same favour to all? Why not rule that all fellows without distinction shall have the option of voting either in person or by proxy-papers? It is easy to conceive that circumstances might arise which would make it difficult for fellows living near Lincoln's-inn-fields to attend at the College on the day of election. It would then be a great convenience to be able to vote by a proxy-paper.

Even though such a change should necessitate an alteration in the charter, surely it is worthy of the serious consideration of the Council.

But we do nothing in England without a precedent. Permit me, therefore, to mention one, which may have some weight with the Council of the College.

An Act was passed in 1861 (24 and 25 Vic. c. 53), enabling electors of the universities of Oxford, Cambridge, and Dublin to vote by proxy-papers at the election of a member of Parliament. No election has yet taken place under the new Act, but there can be no doubt that it will be a great boon to electors. Poor curates and over-worked rectors will no longer be required to make a journey which may be both long and expensive, while at the same time the sense of the constituencies will be more fully and fairly represented.

Is not the precedent a valid one? Have not the two cases much in common? And if a member of parliament may be elected in this way, why not a councilman of the College of Surgeons?

I am, &c. WILLIAM FAIRLIE CLARKE.

Curzon-street, Mayfair, July.

DOMESTIC VAPOUR BATHS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I am glad to see such articles as the one whose title I quote above in the leading columns of your Journal. They are practical; calculated to induce both Practitioner and patient neither to despise nor neglect powerful remedial agents on account of their simplicity, or by reason of the trouble their use may occasion.

Messrs. Benham and Froud's elegant and portable vapour-bath apparatus must prove a great acquisition to those who may be able to purchase one; but there are many who require vapour baths to whom the expense would be a serious objection. Permit me to suggest a simple and inexpensive means of procuring a very comfortable and effective vapour bath without the risk of fire from the flame of spirit lamp or candle, the delay of heating bricks, or the necessity of much pecuniary outlay. In a saucer, place a lump or two of unslaked lime, wet it well, and put it under the blanket covering. The efficiency of this simple contrivance may be increased by using a framework to sustain the blanket made of laths and hoops. This will be found to afford a very comforting and powerful dry vapour bath.

To transform it into a moist vapour bath, all that is necessary is to swathe the body in a wet sheet, and the medicinal influence may be increased by sprinkling the wet sheet by various volatilisable pharmaceutic preparations. I am, &c.

Kennington, July 11, H. M.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Under the above heading you mention among others the plan of raising steam "by putting under the patient's chair a vessel of boiling water, and putting into that one or more bricks heated in a fire." You add "but they take a long time to heat." You will, I am sure, Sir, feel when you have read the sequel that yet one other remark should be added—namely, that they should not be too hot.

Some years ago I was called upon to take charge of a comparatively healthy and strong man of thirty years of age, who had been treated in this way by the orders of a Physician, and under the direction of a regular and skilful nurse. He had been suffering for two or three weeks from a very slight but obstinate muscular rheumatism of one leg, and the above plan was ordered as one of the simplest modes of treatment. The nurse afterwards assured me that she applied it in the same way as she had done many times before: the result was, scalding to death. The scald extended over the whole of the back and sides of the thighs and lower part of the body, and the poor fellow sank after three or four days of great suffering.

How hot the brick was (there was only one used) I cannot say, but the danger seemed to me at the time, as it does still, to depend chiefly on the placing the pail under the patient before immersing the brick in it. By the contrary plan, the first burst of intensely hot vapour is allowed to escape into the air, and the pail being then placed under the canopy surrounding the patient, the contained space is more gradually heated, and the steam impinges on the skin not only with much less actual heat, but with infinitely less rapidity.

However unfrequent such a deplorable result of the hot-brick-bath may be, I am sure, Sir, you will agree with me as to the importance of the possibility of such a result being known as widely as possible, especially as I have observed it very strongly recommended in several recent treatises on rheumatism, without any caution whatever.

Boundary-road, N.W., July 12. I am, &c. JAMES TURLE.

*** Last year our columns contained an account of a girl similarly scalded to death.

THE PRESCRIBER'S COMPANION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I have no desire to take Dr. Bree's criticism of "The Prescriber's Companion" otherwise than "in good part," nor did I for one moment believe that he could have "any earthly motive in misrepresenting" me, or that he desired to do so; I, therefore, am surprised that he should have charged me in his last letter with insinuating what I distinctly repudiated. But the fact remains that Dr. Bree did misrepresent me, and I think it is scarcely generous in him now to reply that his MS. was correct. I did not complain of his MS. I complained of his printed letter; and had I been in his place I should have felt that something more was needed than a confession of fear that I had made "a slip of the pen." But let this pass.

Dr. Bree still maintains that the doses I have given are dangerous. I am sorry he should assume so positive an attitude before such an authority as Dr. Pereira. I had thought that the mention of his name on such a question would be quite sufficient to satisfy most English Physicians, and I think so still. Dr. Bree, however, shall be an exception. I still support the authority of Pereira, and, notwithstanding Dr. Bree's statement that "no practical man with the fear of a coroner's inquest before his eyes would give either ʒj. or ʒij., or any dose whatever, of this dangerous drug (Vinum Tabaci) as an emetic," I maintain that he would be perfectly justified in so doing. Pereira says that "the cautious Practitioner will not use more than 15 or 20 grains" of tobacco, and the dose I have given is actually only 5 to 10 grains.

Dr. Bree still says that the dose of Lobelia ordered by me is "dangerous to life." I repeat what I said before, that it is exactly copied from Pereira; moreover, I have myself given in asthma ʒss. three times a-day for days together. Dr. Elliotson recommends 10 drops every quarter of an hour, increasing 1 drop each dose; and, in America, ʒij. are commonly given every two or three hours, ʒss. being considered a full dose.

Dr. Bree affirms that Lobelia, Tobacco, Squills, and Veratria ought never to have been included in my list of emetics. In reply, I have only to state that they are there on the authority of Pereira; and it is somewhat remarkable that Lobelia should actually have received the name of "the emetic weed." Many Physicians I know use it, and think very highly of it as an emetic in croup.

To show how qualified Dr. Bree is for the very severe strictures which he has passed upon my work, let me allude to the case of the gouty old gentleman which he cites with so much horror because he found in his possession a bottle of colchicum wine, "bearing the name of one of the most respectable London chemists," and having upon it the—to Dr. Bree—awful words "Dose, from twenty drops to two teaspoonfuls." Dr. Bree evidently never heard that Dr. Williams says the dose of colchicum wine may be gradually increased to ʒiij. Pereira has given ʒij., and he puts the ordinary dose as ʒss, to ʒj. Such facts as these make one fear that Dr. Bree may be somewhat rash in his assertions.

In conclusion, I am not the least ashamed to repeat that I have not experimentally or practically tried "all the medicines in the Pharmacopœia," and I differ entirely from Dr. Bree in the opinion that "there are few Practitioners of twenty or thirty years' standing who have not done this over and over again. I should say there are very few indeed who have.

I beg to thank you for the courtesy you have shown in kindly inserting my letters, but I do not intend again to trespass upon your space in this matter. I am, &c.

9, Cavendish-place, Cavendish-square. ALFRED MEADOWS, M.D.

A QUESTION OF TREATMENT.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Can any of your readers suggest any plan of treatment in the following case:—

John H., aged 35, married, carpenter by trade, but plays the cornet occasionally in a Volunteer band. Seven months ago he had connection with a woman (who, he says, there is every reason to believe was healthy, though, perhaps, at the time she had not long ceased menstruating). Five weeks elapsed before symptoms of any kind appeared, he then felt an irritation in the urethra, but no desire to pass water more frequently than usual, nor was there any pain in doing so. From time to time he could force up a whitish fluid, which was sometimes clear, sometimes milky and stringy; this never ran of itself. He next suffered from a burning pain, extending, as he describes it, from the navel to the end of the penis in a line through the bladder, also from great "tightness" and burning pain of the rectum; but this pain was not materially increased by straining at stool; the bowels, moreover, continued regular. All this time his general health, appetite, etc., continued excellent. The act of connection was not at all interfered with, and his wife, with whom he has cohabited all along, has not had one symptom. He consulted several Surgeons, and was variously treated for "dry clap," weakness, irritation of the kidneys, flatulence, etc.

I first saw him on May 8, when he gave me the foregoing history of himself. On examination, there was nothing unusual in the appearance of the penis or its orifice, nor were the glands in the groin at all affected. He stated that his urine had been rather thick for a day or two, so I requested him to bring some. Its analysis revealed high specific gravity, caused by a considerable excess of urea being present, and on treatment with nitric acid the liquid in the test-tube became almost solid from the plates of nitrate of uva thrown down.

I directed him to use occasional warm baths, and gave him a mixture of buchu and uva ursi, with some nitrate of potash. On May 17 he reported himself better in some respects, but with more burning pain and "tightness" in the rectum. He had derived most relief from the warm baths. Although he assured me that he had never suffered from piles, I thought it better to examine the rectum thoroughly, with, however, a purely negative result. I directed him to continue the treatment, with the addition of an occasional suppository of opium. On June 6 the suppository had relieved the pain in the rectum at first, but had latterly failed altogether in doing so. The general health still excellent, but the

other symptoms little, if at all, relieved. I directed him to use injections of cold water to both bladder and rectum, and gave him some quinine.

June 13.—The cold injections relieve the bladder a little, but the end of the penis having become a little inflamed, he has for a day or two discontinued them. I made, this day, the following note of his case:—Health good; pain in the rectum better, but not gone; occasional soreness; sometimes burning pain in the urethra; no discharge, but sometimes voids with the urine a piece of white jelly-like stuff—(this I have never seen, as, being in a shop with other workmen, he has to make water when he can, and he has not been able to save a specimen). He has no pains in the back or loins; the orifice of the penis is a little puffy and cherry-coloured; states that it is sometimes more so, especially of a morning after connection with his wife. He does not micturate frequently, and the water is clear and free from sediment. He occasionally suffers from a peculiar aching and hardening of the penis.

If any of your readers can suggest a course of treatment, or offer me any explanation of these symptoms, I shall be obliged. I am, &c.

117, Warwick-street, S.W EDWARD ELLIS, M.D.

HERBERT LLEWELLYN,

SURGEON TO THE "ALABAMA."

THE following poem has been sent us for publication by the author, a distinguished provincial Physician:—

When a boat filled with the wounded was pushing off from the ship, which appeared about to founder, the men appealed to "the Doctor" to jump on board and save himself; but that noble and devoted man refused, saying, "that the boat was only for the wounded, and he would not endanger them by entering their over-laden vessel."

Herbert Llewellyn went down with the *Alabama*.

HERBERT LLEWELLYN! A name
That long will be honoured in story;
For hallowed and high is the fame
Of that noble "non-combatant's" glory.
The sea-fight had now ceased to rage,
But the shattered ship's flag was yet flying:—
In the combat he did not engage,
He was tending the wounded and dying.
A glory in youth or in age
To succour the sick and the dying.
But bravest before all the brave,
He cared not his own life to save,
He cared for the wounded and dying.

HERBERT LLEWELLYN, he stood
On the deck of his ship,—she was sinking;
But calm and undaunted his mood,
Of the wounded alone was he thinking.
That bold, able Surgeon, with hand
Ever ready to render assistance,
How the wounded to save he now planned,
When his ship could no more make resistance.
A boat, on the instant, is manned,
Since the ship can no more make resistance,
With the wounded that boat is soon full,
"Give way, comrades pull, comrades pull,"
For our ship can no more make resistance.

HERBERT LLEWELLYN! beware,
"Doctor," all cry, "you will perish,
"A berth in our boat we must spare,
"To save one we so honour and cherish:
"Leap in." But the Doctor replied,
As he stood there all fearless and lonely,
"For the wounded that boat was supplied,
"And that boat is for wounded men only.
"For their safety it was to provide,
"For the safety of wounded men only."
Death and danger to him were as nought,
'Twas the safety of others he sought;
And the boat was for wounded men only.

HERBERT LLEWELLYN went down
With his ship, in the deep seething water,
But such death has a higher renown
Than to die adding heaps to war's slaughter.
Must the red death of battle alone
Claim praises from valour and beauty?
Is not a more true courage shown,
When calmly man meets death as duty?
Has he not more rare courage known,
Who calmly met death as his duty?
HERBERT LLEWELLYN, thy name
Is baptised unto undying fame,
So calmly did'st thou meet thy death as thy duty.

Torquay, June 20. R. T. E.

COMMUNICATIONS have been received from—

Mr. W. LONEY, R.N.; Dr. J. SMITH CHARTRES; Sir W. R. WILDE; APOTHECARIES' HALL; Mr. D. CLARK; Dr. JAMES YOUNG; Dr. EVANSON; Dr. ROBERT FOWLER; AN EYE WITNESS; Dr. JAMES TURLE; Dr. GEORGE COUCHET; Mr. J. N. TERRY; Dr. EDWARD ELLIS; Mr. J. JONES; FROM A CORRESPONDENT; H. M.; Dr. ALFRED MEADOWS; Mr. J. BAXTER LANGLEY; Dr. W. FAIRLIE CLARKE.

BOOKS RECEIVED.

The American Journal of Medical Sciences. April, 1864. Philadelphia: Blanchard and Lea.

*** The report by Dr. Moses on Gunshot Injuries shows progress in Conservative Surgery, particularly after wounds of the knee-joint; so does Lidell's paper on Major Amputations. Dr. Thomson shows the great experience of the Americans as to *bromine*, which is proved to be by far the best remedy for Hospital gangrene. This is one of the best numbers of one of the best journals in existence. It has capital original articles, and a very good *resumé* of Medical novelties from all parts of the world.

Edinburgh Medical Journal. July, 1864. Edinburgh: Oliver and Boyd.

*** This journal is valuable not only for its original papers, but for its report of cases at the Medical, Chirurgical, and Obstetrical Societies of Edinburgh. Amongst the latter we have a case of puerperal tetanus by Dr. Macgregor.

Half-yearly Abstract of the Medical Sciences. Vol. 39. January to June, 1864. London: John Churchill and Sons.

Thoughts on Insanity and its Causes, and on the Management of the Insane. By Wm. Williamson. London: A. W. Bennett, 5, Bishopsgate-street Without. 1864.

The British Army and Navy Review. No. 1. July, 1864. London: 9, Waterloo-place.

Passages from the Life of a Philosopher. By Charles Babbage, M.A. London: Longman and Co. 1864.

The Geological Magazine. No. 1. July, 1864. London: Longman and Co.

Metamorphoses of Man and the Lower Animals. By A. De Quatrefages. Translated by Henry Lawson, M.D. London: R. Hardwicke. 1864.

The Ophthalmic Review. No. 2. July, 1864. London: R. Hardwicke.

Compendiöses Worterbuch der Speciellen Arznei-Verordnungslehre. Von Dr. Karl Philipp Falck. Erlangen: Enke. 1864.

Lehrbuch der Physiologie des Menschen. Von Dr. Wilhelm Wundt. Erlangen: Verlag von Ferdinand Enke. 1864.

On the Vertebroid Homologies of the Cranium. By Wm. Macdonald, M.D. Edinburgh. 1864. Pamphlet.

The Australian Medical Journal. No. 36. April, 1864.

Braithwaite's Retrospect of Medicine. Vol. 49. January to June, 1864. Simpkin and Co.

Klinische und Experimentelle Mittheilungen aus der Dermatologie und Syphilidologie. Von Dr. Heinrich Köbner. Erlangen: Enke. 1864.

Die Sinnesdelirien. Von Dr. Med. R. V. Krafft-Ebing. Erlangen: Enke. 1864.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 9, 1864.

BIRTHS.

Births of Boys, 967; Girls, 909; Total, 1876.
Average of 10 corresponding weeks, 1854-63, 1620·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	678	590	1268
Average of the ten years 1854-63	554·8	510·2	1065·0
Average corrected to increased population..	..	..	1172
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	1	8	9	2	5	12	12
North ..	618,210	3	8	11	1	4	11	16
Central ..	378,058	..	17	5	2	2	8	14
East ..	571,158	..	35	15	..	13	24	29
South ..	773,175	5	11	16	8	5	13	10
Total ..	2,803,989	9	79	56	13	29	68	81

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·881 in.
Mean temperature	56·5
Highest point of thermometer	74·1
Lowest point of thermometer	45·8
Mean dew-point temperature	47·5
General direction of wind	S.W. N.N.E
Whole amount of rain in the week	0·13 in.

APPOINTMENTS FOR THE WEEK.

July 16. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m Royal Free Hospital, 1½ p.m.

18. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital 1½ p.m.; Samaritan Hospital, 2½ p.m.

19. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

20. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.

21. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m. Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

22. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

DINNEFORD AND CO., PHARMACEUTICAL CHEMISTS,

Respectfully refer the Medical Profession to their highly effective preparations :—

SYRUPUS SENNÆ, SUCCUS TARAXACI, AND EXTRACTUM SARZÆ LIQUIDUM

OF THE

NEW BRITISH PHARMACOPŒIA.

172, NEW BOND-STREET, LONDON.

CHLORODYNE CHANCERY SUIT.

JANUARY 11th, 1864.

BROWNE AND DAVENPORT versus FREEMAN.

"It was fully proved and established in Court, before Vice-Chancellor Sir W. P. Wood, that Dr. John Collis Browne was the Discoverer of Chlorodyne.

"The Vice-Chancellor observed that Dr. J. Collis Browne's Chlorodyne was known before the Defendant 'Freeman' had ever thought of using the word; that the Defendant's conduct led to a very strong suspicion that there was a gradual course of proceeding on his part to mislead people into the belief that, when they bought his medicine, they were purchasing Dr. J. Collis Browne's Chlorodyne; and that, if the Plaintiffs could show that any one had actually been deceived, an Injunction would be granted."—*Times*, January 12.

Affidavits from eminent Physicians and Surgeons of the Metropolitan Hospitals proved, beyond doubt, that Dr. J. Collis Browne was the discoverer of Chlorodyne; that they prescribe it largely, and invariably mean the original Chlorodyne of Dr. J. Collis Browne.

An Affidavit by Mr. Warington, Chemical Operator to the Apothecaries' Company of London, also established the fact, that Dr. Browne was the inventor of Chlorodyne; that the Company receive large orders for the supply of Chlorodyne for the Public Service, Hospitals, Merchants, and the Profession; and that, when Chlorodyne is ordered, they invariably supply Dr. J. C. Browne's.

Affidavits from Messrs. John Bell, Pharmaceutical Chemists, 338, Oxford-street, and several leading Wholesale Druggists of London, to the same effect, and that, when Chlorodyne is ordered, they invariably supply Dr. J. Collis Browne's.

Sole Manufacturer—J. T. DAVENPORT, 33, Great Russell-street, Bloomsbury, London.

In Bottles, 1 oz., 3s.; 2 oz., 5s.; 4 oz., 8s.; 10 oz., 15s.

Neither Physician nor Surgeon in plaintiff's suit even mentioned Freeman's compound: so much for the *truth* of its being the *preferred* medicine, as stated by the defendant. It is equally untrue that the Vice-Chancellor intimated in the slightest degree that the defendant had the right to the sole use of the prefix Original, as quoted in his advertisement in the "Pharmaceutical Journal," March 1, 1864.

The observations of the Vice-Chancellor, as reported in the "Times," speak for themselves.

Each Affidavit from Physicians, Surgeons, and Chemists affirms that Dr. Browne's Chlorodyne was known to them in 1855; whereas the Defendant "Freeman's" Compound was not heard of until 1859, after the Original Chlorodyne had obtained world-wide fame.

TOWLE'S CHLORODYNE.

OF KNOWN COMPOSITION.

For Formula, &c., see back Numbers.

Extract of Letter from Dr. C. KIDD (Author of Standard Works on Chloroform).—"SIR,— . . Of the value of Chloroform given internally I have no doubt; it appears to me in that form an anodyne, *sui generis*, that no other anodyne can approach. I have resolutely opposed the use of *secret* compounds of chloroform, and in every way I can encourage the use of the 'Chlorodyne' (if we must have it at all) that is made by you, as you state that its composition is known. Many Medical men think with me, and recommend your compound, but will never prescribe a secret remedy.—CHAS. KIDD, M.D.—Sackville-street, Piccadilly, London, April, 1862.—To Mr A. P. Towle."

Extract of Letter from ALFRED ASPLAND, Esq., F.R.C.S. Eng., J. P. Chester and Lancaster, Surgeon 4th Cheshire Batt. V.R., Surgeon to the Ashton Infirmary.—"After an extensive trial of your Chlorodyne in Hospital, Infirmary, and Private Practice, I am able to state that it is a valuable medicine. I have found its action peculiarly serviceable in Bronchial, Spasmodic, and Neuralgic Affections. I have never found it produce headache or feverish disturbance, results which not unfrequently occur from other forms of Chlorodyne. As a sedative to allay excitement arising from the abuse of intoxicating drinks, so commonly witnessed in our Barrack Hospital, I have been perfectly satisfied with it. Its known composition will doubtless prove an additional recommendation to the Profession.—To Mr. A. P. Towle."

Sold by Wholesale Houses in bottles, 1 oz., 1s. 6d.; 2 oz., 2s. 6d.; 4 oz., 4s.; and 8 oz., 8s.

SOLE MANUFACTURER—A. P. TOWLE, CHEMIST, &c., 99, STOCKPORT-ROAD, MANCHESTER.

LIQ. CHLOROFORMI CO. (TOWLE'S).

This preparation is identical with "Towle's Chlorodyne," *sine* Ol. Menth. Pip. (dose 5 to 20 minims, as in Chlorodyne).

The Proprietor having for some time past, at the request of several members of the Medical Profession, made a preparation of Chlorodyne without peppermint, has lately, on account of the frequency of these demands, prepared the same for more general use, under the designation of LIQUOR CHLOROFORMI CO., which, possessing the Medical properties of Chlorodyne, may be prescribed in all cases where the Ol. Menth. Pip. is disapproved, and overcome the objection so generally felt to the use of the term "Chlorodyne."

May be obtained, as an introduction, from the following Wholesale Houses, in 2 and 4 oz. bottles, at 2s. 6d. and 4s. each :—London: Barclay and Sons, 95, Farringdon-street. Birmingham: Southall, Son, and Dymond. Liverpool: Clay, Dod, and Case. Edinburgh: Duncan, Flockhart, and Co. Glasgow: The Apothecaries' Company. Dublin: Bewley, Hamilton, and Co. Manchester: Jas. Woolley; and the

Proprietor—A. P. TOWLE, 99, STOCKPORT-ROAD, MANCHESTER.

ORIGINAL LECTURES.

THREE CLINICAL LECTURES ON IRIDECTOMY AND GLAUCOMA.

By T. WHARTON JONES, F.R.S.,
Professor of Ophthalmic Medicine and Surgery in University College, and Ophthalmic Surgeon to the Hospital.

Lecture I.

Gentlemen,—Iridectomy is the cutting out of a piece of the iris, and is an operation which has been long in use for the formation of artificial pupil. There are two forms of the operation—the one named *central excision* of the iris, the other *lateral excision*.

The formation of artificial pupil by central excision, you see had recourse to here in certain cases of closed pupil. The formation of artificial pupil by lateral excision, which we have occasion more frequently to perform, is applicable to those cases especially in which the pupil is free either wholly or in part, but in which the centre of the cornea opposite is so opaque as to prevent the entrance of the light into it. By excision of the iris on one side, opposite a clear part of the cornea, the rays of light entering the eye by that clear part are afforded a free passage on their way to the retina.

The opacity of the centre of the cornea in those cases in which the pupil is still open wholly or partially, is an effect of various forms of ophthalmia. Though after the subsidence of the inflammation, the cornea tends to become clear again, opacity often lingers in the central part. I should observe that the clearing goes on from the circumference to the centre. If there has been no penetrating ulcer of the cornea with *prolapsus iridis*, the pupil remains wholly open and free behind the opacity. When, however, there has been ulceration eating through the whole thickness of the cornea, a portion of the iris will be found adherent to the cornea, in consequence of its having become prolapsed through the perforation caused by the ulceration. In the situation of the cicatrice left by the healing of the ulcer, and to a considerable extent all round, the cornea remains permanently opaque. In such a case the pupil is contracted and dragged behind the opaque part of the cornea, and its margin is free on one side only.

The operation for artificial pupil by lateral excision we sometimes perform in cases in which the transparency of the cornea is unimpaired, but in which there is obstruction of the pupil by opaque deposit of lymph and extensive adhesions of the pupillary margin of the iris to the capsule of the lens, the lens being in other respects still transparent.

Having thus indicated the kind of cases in which it has been long customary to perform the operation for artificial pupil by lateral excision of a piece of the iris, let us now address ourselves to the mode of performing the operation.

The best position for the patient is to lie on his back on a table with his head sufficiently raised; in this position the patient's head is secured against any sudden backward movement which might be fatal to the eye at the moment the iris is being drawn out in order to be excised. If the patient is young, or not sufficiently firm, you will find it necessary to give chloroform.

Matters being thus so far arranged, the Surgeon, having all his instruments ready at hand, takes charge of one eyelid and his assistant of the other; then, at the side where the state of the eye permits of the artificial pupil being formed—a point, of course, previously determined on—he makes an incision through the cornea, close to and concentric with its margin into the anterior chamber to the extent of about a quarter of its circumference. This section of the cornea is, perhaps, best effected by puncturation and counter-puncturation with a cataract knife, as in making the section of the cornea for extraction of the cataract. This was what I did in the case of glaucomatous ophthalmia in which I performed iridectomy last Friday; that is, three days ago. In operating on that occasion, however, I made the section on the sclerotic side of the margin of the clear cornea, the reason for which proceeding I shall afterwards explain. In operating exclusively for the sake of an artificial pupil I would not, unless there were a very small extent of clear cornea, make the section beyond the extreme margin of the cornea, as I did in this instance, for my object would not be to cut away the whole breadth of the iris at the place.

The section of the cornea having been made, the necessary result was, as you saw, escape of the aqueous humour. Another result, which generally takes place, you saw was prolapse of the iris, that membrane being forced out through the opening in the cornea by the gush of aqueous humour which took place at the moment of completing the section.

In cases in which there is adhesion of the iris to the cornea (*synechia anterior*, as such a state is called), or of the iris to the capsule of the lens (*synechia posterior*, as this state is called), *prolapsus iridis* may not occur.

If the iris protrudes, as it did in the case operated on last Friday, the second step of the operation is performed by simply seizing the protruding iris with a fine forceps, such as this which I used on the occasion referred to, and dragging it further out so that its pupillary margin may be included in the piece excised.

If, on the contrary, in consequence of adhesion to the cornea or capsule of the lens, the iris does not of itself protrude through the opening, it is necessary to enter the point of the forceps closed, a little way into the anterior chamber, and then opening the forceps, the Surgeon seizes the iris by pinching it up, and drags it gently out to the necessary extent. In performing this manœuvre, we must take care not to push the point of the forceps beyond the pupillary margin of the iris, for fear of wounding the capsule of the lens—a wound of which membrane, as you are aware, would induce opacity of the lens.

The excision of the protruded piece of iris is effected by means of this well-known form of scissors, curved on the flat. In performing this act, the scissors are to be held, of course, with the convexity of the curve next the cornea, and with their length at right angles to the line of the section of the cornea, in order not to run the slightest risk of including a bit of the flap of the cornea in the excision. In the operation last Friday, I was careful to snip the protruded iris first at one end of the wound in the cornea and then at the other, before completing the excision of the whole. This I did as it was my object in that case to excise a large piece of the iris. It was for this reason, also, that I made the section on the sclerotic side of the clear margin of the cornea. Had I been operating merely for the formation of an artificial pupil, it would have been sufficient to snip off as much of the iris as could be comprehended in one cut of the scissors.

When the eye and iris are otherwise healthy, as is usually the case when you perform iridectomy merely for the sake of obtaining an artificial pupil, there is little or no bleeding from the cut iris. Matters are different when the operation of iridectomy is performed under the circumstances under which I performed it in the case I have been referring to. The iris, being in common with other parts of the eyeball, the seat of great venous congestion, blood escaped in that case, as you saw, in very considerable quantity—so great as to fill the aqueous chambers.

The operation being completed, what is the state of the eye? By the evacuation of the aqueous humour, the vitreous body and lens are, by the elastic reaction of the coats of the eyeball pressed forward against the remaining portion of the iris, and this, again, against the cornea.

The edges of the corneal incision very quickly adhere, so that when you examine the eye the second day after the operation, you, perhaps, find union has taken place; and, as a consequence of the closure of the opening in the cornea, you find the aqueous humour reaccumulated and the cornea again plump.

Whence is this regeneration of the aqueous humour derived? I think there can be no doubt that it is derived by exudation, chiefly from the blood circulating in the vessels of the very vascular ciliary processes which project free into the posterior chamber all round its circumference.

A very common answer to this question used to be that the aqueous humour is secreted by the lining membrane of the aqueous chambers; but this, I must say, is a statement not exactly in accordance with our notions of the process of secretion unless it be understood to refer merely to the detached cells seen suspended in the aqueous humour examined under the microscope, and which are, no doubt, thrown off from the surface of the walls of the aqueous chambers. Another opinion which has been enunciated of late years is, that the aqueous humour is derived principally from the surface of the iris by exudation or secretion. In disproof of this opinion, it may be enough to refer to the fact that in a case of irideremia

or congenital total absence of iris, in which I had occasion to perform the operation of paracentesis corneæ for an internal inflammation, regeneration of the aqueous humour took place as rapidly and completely as is usual in cases in which the iris is normally existent; and to another fact—viz., that the whole iris has been torn away by accident, with, at the same time, loss of the aqueous humour, but in which case the aqueous humour, notwithstanding, has been duly regenerated.

If there was any blood effused into the aqueous chambers at the time of the operation, it disappears by absorption—usually in a very short time. The patient commonly recovers from the operation in a few days.

So much for iridectomy or lateral excision of the iris for the sake of forming an artificial pupil. I should now direct your attention specially to the operation as performed in the case of glaucomatous inflammation of the eye at present under our care.

Before speaking of glaucoma and iridectomy as a means of treating it, however, I would make some remarks on the evacuation of the aqueous humour as a means of treating certain anterior internal ophthalmiæ.

It is about fifty years ago since the value of this operation was brought under the notice of the Profession by Mr. Wardrop, in cases especially of anterior internal inflammation of the eye attended by dimness of the cornea. Considering that the dimness of the cornea was the result of intraocular pressure, Mr. Wardrop punctured the cornea and evacuated the aqueous humour in order to relieve this pressure. Mr. Wardrop was led to adopt the practice by reflecting on the fact, that if you take the eye of a sheep, for instance, and squeeze it in your hand, the cornea becomes dim, but resumes its transparency when the pressure is relaxed.

Whether the dimness in this experiment be of the same nature as the dimness of the cornea in the inflammations of the eye under notice is a question of no practical consequence. It is enough for us to know that evacuation of the aqueous humour is a most valuable remedy in the treatment of corneitis and such anterior internal inflammations as involve the iris and cornea.

Such inflammations give rise to more copious exudation of aqueous humour, and the irritation resulting from the intra-ocular pressure occasioned by the increased accumulation keeps up the disease and opposes the beneficial operation of the medicines employed. Relieve this source of irritation by evacuating the aqueous humour, and the inflammation will begin to yield to the action of the medicines it previously resisted.

Often a single performance of the operation is sufficient; sometimes the operation may require to be repeated two or three times. We have seen that the aqueous humour is quickly regenerated, and that the source, whence it is derived is principally the blood circulating in the vessels of the very vascular ciliary processes.

I have over and over again proved the value of this operation as an auxiliary of the medicinal treatment, in cases in which the inflammation was very stubborn, and by means of it have often rescued the eye from imminent destruction.

We now come to glaucoma. Well, then, what is glaucoma? The name glaucoma is applied to a morbid condition of the eye, in which there is great deterioration of sight—even total blindness—and in which, through the much dilated and, perhaps, ovally or otherwise distorted pupil, there is seen an appearance as if of a sea-green opacity; hence the name glaucoma, from γλαυκος, sea-green.

This sea-green opaque appearance behind the pupil was at one time supposed to have its seat in the vitreous humour. Glaucoma, therefore, as opacity of the vitreous body used to be contrasted with cataract as opacity of the crystalline lens.

It was, however, demonstrated by Dr. Mackenzie many years ago, partly by dissections after death, and partly by catoptrical exploration of the eye during life, that the cause of the sea-green opaque appearance in glaucoma really has its seat in the lens, and that it is owing to an alteration in the condition of that body, whereby, though still in a great measure retaining its transparency, it reflects much of the light entering it, and that of a sea-green tint.

Though giving the name to the disease, the sea-green opaque appearance behind the pupil, it is to be remembered, is merely an incidental accompaniment of it. A very much more serious state of matters characterises its real pathology. Indeed, the appearance of a greyish or greenish opacity behind the pupil is not at all an uncommon appearance in the eyes of old persons whose sight, considering their age, is not particularly impaired.

Great venous congestion may be said to be the characteristic morbid condition of the eye in glaucoma; and the parts the congestion of which is more immediately fatal to the sight are the choroid and retina.

If we examine the interior of a glaucomatous eye by means of the ophthalmoscope, we not unfrequently find that the humours are sufficiently clear to allow of the state of the papilla optica, retina, and choroid being ascertained.

In these figures of Liebreich's work, you perceive that the limit between the retina and papilla is strongly marked, and that the sclerotica, where it joins the sheath of the optic nerve, shines through as a prominent yellowish-white ring or border, so that there appears an excavation of the optic nerve at its entrance. In the middle it is clearer, and the lamina cribrosa very distinct, the more so the deeper the excavation.

In consequence of the excavation of the papilla optica, the course of the retinal vessels, on entering the eye, appears peculiar. Having penetrated the lamina cribrosa, they run on the bottom of the excavation, by the overhanging margin of which their further course is concealed; and when they re-appear on the retina they do not look like continuations of the same vessels.

The arteries of the retina, being constricted, appear slender and pale, whilst the veins are dark and enormously distended.

As to the alterations observed in the condition of the choroid:—The quantity of the pigment in the cells of the pigment membrane is diminished, whilst there may be an increase in the quantity of the pigment in the cells of the stroma of the choroid. In this case, the vessels of the choroid are seen in ophthalmoscopical examinations more distinctly, and with darker spaces between them.

The turgid tortuous ramifications of the veins extending from the place of insertion of the recti muscles on the white of the eye, manifests a state of external venous congestion likewise. Indeed, the glaucomatous condition of the eye very generally co-exists with abdominal congestion and hæmorrhoidal disease—so much so, that the turgid and tortuous veins, so common in the white of the eye in such cases, have been named "abdominal vessels."

In the glaucomatous eye, even at a very early stage of the disease, the iris is inclined towards the cornea, and the aqueous chambers are diminished in depth. This is owing to the increased accumulation of blood in the veins of the choroid and retina, and to an increase of the fluid in the cells of the vitreous body—itself the result of the congestion—whereby the posterior segment of the eyeball is distended, and the lens pressed forward against the iris.

It is in a great measure owing to this posterior intra-ocular distension that the papilla optica becomes excavated and that the retina suffers.

It is in consequence of this posterior intra-ocular distension also that the eyeball is felt so hard to the touch. Owing also to the intra-ocular distension, pain in the eye, around the orbit and all over the side of the head, is a very common attendant of glaucoma. It is especially severe when inflammation of the eye supervenes, which it is very prone to do. In this case also the sight is rapidly destroyed.

The inflammation is of that character which has been named arthritic posterior internal ophthalmia. The affection is also named acute glaucoma.

I have said that the lens, though it looks opaque in glaucoma, may be still clear enough to permit the bottom of the eye being ophthalmoscopically examined. The lens, however, is liable eventually to become cataractous. In such cases, there is usually already disorganisation of the retina, so that the cataract is merely superadded to hopeless amaurosis.

At my next lecture we shall examine somewhat more in detail the pathology of glaucoma.

Aid to Medical Charities.—Colonel Richard William Astell, of Everton House, Bedfordshire, has just bequeathed, free of legacy duty, £100 to each of the following Hospitals:—The Middlesex, the Westminster, the Royal Free Hospital, and the Bedford Infirmary.

Contagious Diseases in General Hospitals.—M. Husson, the energetic Director of Public Assistance, has issued a circular to all the Medical officers of Hospitals in Paris, calling upon them for a consultation and report upon the following question:—"Is it necessary to treat in separate wards patients suffering from acute contagious diseases, such as eruptive fevers?" One would have thought that this question had long since been decided in the affirmative.

COURSE OF
LECTURES
ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D.,
Professor in University College, and Assistant-Physician to University College Hospital.

Lecture V.

Hippuric Acid $C_{18}H_9NO_6$.

Chemistry.

Hippuric acid is a beautiful white, crystalline, slightly acid body. The crystals are, in general, rhombic prisms, columns, or long fine needles. Occasionally they are massed in dove-tail-shaped fans. It is soluble in alcohol, ether, and water. Its aqueous solution is sufficiently acid to redden litmus. Hence it is a much stronger acid than uric acid, and possibly it greatly contributes to produce the acidity of normal urine.

The only other urinary sediment which is at all likely to be confounded with hippuric acid is that of the triple phosphates. The crystals of hippuric acid, however, are easily distinguished from those of the latter substance by their occurring in acid urines; while triple phosphates are only to be found in alkaline, or at least neutral liquids. In cases of doubt all that is necessary is to add a drop of hydrochloric acid, which dissolves the phosphates and leaves the crystals of hippuric acid intact.

When directly crystallised from human urine, hippuric acid is dark coloured, in consequence of its combining with the urohæmatine and other pigments present in the excretion. It can, however, be readily obtained pure by repeated crystallisation, or by passing its solution through charcoal.

By the process of fermentation, hippuric is transformed into benzoic acid, which crystallises in flat, white, shining plates. When urine decomposes the hippuric acid is thus changed. Hence the difficulty of finding it in stale urine.

If a few dry crystals of hippuric acid be heated in a test-tube, they partly sublime into benzoic acid, which collects on the cold portion of the tube, and partly form nitro-benzole, a red liquid with a fine prussic acid-like fragrance, resembling that of bitter almond oil. This odour is readily obtained from a very few crystals, and affords an excellent means of ascertaining the presence of hippuric acid.

Benzoic acid contains no nitrogen, whereas hippuric acid does, as can be easily shown by heating some, along with a mixture of caustic soda and lime, in a test-tube, when the nitrogen is given off in the form of ammonia, which can be recognised by its smell and by its turning white paper, moistened with a solution of the subnitrate of mercury, black. I have particularly mentioned the fact of hippuric acid being at once transformed into benzoic acid (out of the body) by the mere application of heat, because, when benzoic acid is taken internally, either as a remedy or for experiment, the animal body reconverts it into hippuric acid. Hence the tissues or blood, or some other part of the frame, must possess the power of yielding up the requisite quantity of nitrogen, to transform the one substance into the other.

Method of Analysis. — Evaporate rapidly, with constant stirring, from 300 to 600 c.c. (from eighteen to twenty ounces) of urine to nearly dryness. When cold, filter and add to the syrupy liquid from ten to twenty drops of concentrated hydrochloric acid. Stir the whole, and then extract the hippuric acid with pure ether, to which ten per cent. of absolute alcohol has been added. On slowly evaporating the etherial solution, the crystals of hippuric acid are deposited.

If a urinary sediment consists of both uric and hippuric acids, and it be deemed desirable to separate them, all that is necessary is to boil the sediment in alcohol slightly acidulated with hydrochloric acid, and filter the solution. The hippuric acid goes through, and may be obtained from the filtrate by simple evaporation. The uric acid remains on the filter.

Physiology.

Although Liebig discovered hippuric acid in human as well as in herbivorous animals' urine, it was for a long time thought, as it occurred in such small quantity in the human urine, that its presence there might be regarded as accidental. The recent researches of Weissmann and of Hallwachs (made independently of each other) have clearly shown, however, that normal human urine contains a much larger quantity of hippuric acid than was formerly imagined. In fact, they have found that we pass more hippuric than uric acid, and the reason why we remained so long ignorant of this important fact is no doubt in consequence of hippuric acid being so exceedingly soluble in water, that it is rarely, if ever, to be found as a spontaneous deposit.

Hippuric acid, until quite recently, was in general regarded as the crystalline organic acid characteristic of vegetable diet. —a view which can no longer be entertained, since Weissmann has shown that its presence in human urine does not solely depend on the kind of food, although, as might be expected, the diet has an important influence on its quantity.

The following table gives the result of his analyses :—

Diet.	Hippuric Acid in the Twenty-four Hours' Urine.
Mixed . . .	2·17 grammes = 33·635 grains
Animal. . .	0·765 ,, = 11·857 ,,
Bread and water .	0·65 ,, = 10·075 ,,

The largest amount of hippuric acid passed in the twenty-four hours is always found to follow a purely vegetable diet, although not entirely dependent on it. Certain fruits have a very marked effect in increasing the amount of hippuric acid in the human urine. Lücke specially calls attention to this fact. Cranberries and blackberries he found greatly increased it; and more recently, Thudichum and others have made a similar statement with regard to plums.

As was before hinted, it has been shown that the hippuric acid found in the urine does not all come from the vegetable food. The researches of Weissmann have proved, as seen in the above table, that on an animal diet more hippuric acid is passed than on a simple bread-and-water diet. This opinion is still further strengthened by the fact that Dessaignes has succeeded in forming hippuric acid artificially. Moreover, benzoic acid, which can be obtained by the action of nitric acid on protein substances, is, as was first pointed out by Mr. Ure, transformed in the human body into hippuric acid. Any one can readily convince himself of the correctness of this last statement by taking ten or twelve grains of benzoic acid at bed-time, and looking for hippuric acid in the morning's urine. In order to be successful in the search, all that is required is to add a few drops of hydrochloric acid to the urine, and then concentrate a little of it to the consistency of a syrup. While cooling, fine crystals of hippuric acid form in the vessel; and they can be easily detected with the microscope.

The subjoined figure represents the various forms of crystal usually met with when the acid has been directly crystallised from urine. The fine needle-shaped ones, either separate or combined in stillate groups, are the most common. Sometimes they form perfect rosettes.

Fig. 11.

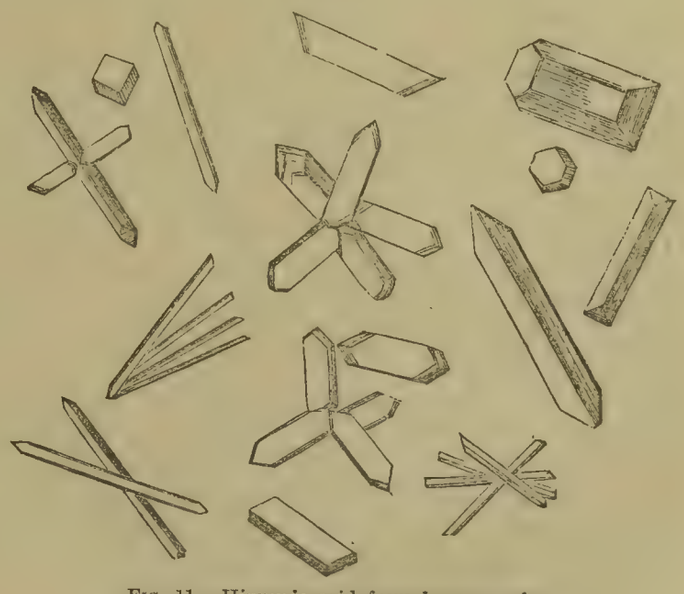


Fig. 11.—Hippuric acid from human urine.

Maack found that horses standing in the stable pass very little hippuric acid, but large quantities of urea, and I have made a similar observation regarding our London stall-fed cows. Exercise, therefore, seems to increase the amount of

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—Ed. *Med. Times and Gaz.*

hippuric acid and diminish that of the urea excreted by herbivorous animals.

Hippuric acid, like urea and uric acid, is a normal constituent of the healthy blood of the ox (Verdeil), and I have little doubt it will yet be found in the blood of all other animals in whose urine it normally occurs.

Pathology.

As yet we know very little regarding the pathological importance of hippuric acid; but the following are a few of the best ascertained facts:—

Hervier has detected hippuric acid in diseased human blood, and Schlossberger in the scales taken from the skin in a case of ichthyosis.

In diabetes the quantity in the urine is increased. Lehmann, indeed, thought that it replaced the uric acid in that disease. This can scarcely be said to be the case, however, although the salient fact remains that in diabetes the hippuric acid is augmented while the uric acid is diminished.

In the urine of typhus patients it is increased; indeed, Dr. Parkes, in generalising from the experiments of others, says, that as a rule, the hippuric acid is increased in all febrile affections. Hippuric acid also appears to be increased in chorea (Parkes).

There are certain remedies which have a very marked effect on the quantity of hippuric acid eliminated by the urine.

Kletzinsky (Canstatt, 1859) finds that after taking benzoic acid internally the urea is diminished to 2·5 grammes, or 38·75 grains in twenty-four hours, and the hippuric acid increased to the enormous quantity of 9·5 grammes, or 147·25 grains. Consequently there is only 0·3 grammes less nitrogen excreted than under normal circumstances.

The balsam of Peru when taken internally has also a marked effect in augmenting the excretion of hippuric acid.

On the other hand, when hippuric acid is taken internally, it passes into the urine unchanged. Kühne has made the interesting observation, that even benzoic acid, when given to jaundiced patients, is not transformed into hippuric acid, and therefrom concludes that the seat of the transformation must be in the liver, but further researches are much wanted on this point, as indeed upon all others in connexion with the amount and relations of hippuric acid in the human urine.

Chloride of Sodium, Cl. Na. Common Salt.

The physical properties of chloride of sodium need no description, so I shall at once enter upon its

Chemistry.

The presence or absence of chlorides from the urine is very readily ascertained in the following manner:—

To a little urine in a test tube, add a drop or two of nitric acid, and then a few drops of a solution of nitrate of silver; the immediate formation of a white precipitate indicates the presence of chlorides. If only traces of chlorides are present the urine merely becomes milky. The precipitate may be still further proved to consist of chloride of silver by its being soluble in ammonia and reprecipitated on the addition of nitric acid.

Quantitative Analysis.—The amount of chlorides in the urine is best estimated with a standard solution of the nitrate of silver. The solution is prepared in the following manner:—

1st. Dissolve 29·063 grammes (450·476 grains) of chemically pure fused nitrate of silver in 1000 cubic centimeters (32·23 oz.) of distilled water. 1 c. c. of this solution is equal to 0·01 gramme of chloride of sodium and to 0·006 gramme of hydrochloric acid.

2ndly. Prepare a cold saturated solution of neutral chromate of potash.

Being provided with these solutions, employ the same apparatus as was used in estimating the urea (p. 475), and proceed as follows:—

Take 50 c. c. of urine, and if necessary render them neutral by the addition of a drop or two of carbonate of soda solution. Then add four or five drops of the saturated solution of the chromate of potash, after which nothing more remains to be done but to pour into the urine the standard solution of nitrate of silver drop by drop until the red chromate of silver makes its appearance. As soon as the red colour shows itself the operation is completed, and all that is required is to see how much of the standard solution has been used, and make the calculation accordingly.

If 20 c. c. of standard solution were requisite, and 1 c. c. is, as we have said, equal to 0·006 grammes of hydrochloric acid, the 50 c. c. of urine must have contained 0·12 gramme of hydrochloric acid. Supposing, now, that the patient made 1000 c. c. of urine in the twenty-four hours, it is evident that he must have passed 2·4 grammes of hydrochloric acid, for

$$\frac{1000 \times 0{\cdot}12}{50.} = 2{\cdot}4 \text{ grammes.}$$

(To be continued.)

ORIGINAL COMMUNICATIONS.

BELLADONNA IN EPILEPSY.

By JOHN C. THOROWGOOD, M.D., M.R.C.P., Lond.,
Assistant-Physician City of London Hospital for Diseases of the Chest, Victoria Park.

John F., aged 20, of florid aspect, well grown, but thin, and poorly nourished, has been obliged to leave service in consequence of frequent fits. Now (March, 1860) he has three or four of these fits in a week; when seized, he feels giddy, with what he describes as a "hot rising into his head;" he then loses consciousness and falls down, and his parents tell him that his limbs are for a time convulsed, though not more on one side than the other, and then they become stiff; he does not bite his tongue nor foam at the mouth. The fit passes off in ten or fifteen minutes, and he remains giddy and with a dull headache for several hours after.

Some years ago he was troubled with ascarides, but these seem to have quite disappeared, and no connexion can be traced between this affection and the fits.

His appetite is very variable; the tongue large and clean; bowels open; at times he is sick and retches much; when he is fatigued his limbs are apt to twitch; he often has headache and feeling of fulness, made worse by beer or spirits; at times his nose bleeds; he sleeps pretty well, but at times is very prone to dream; the fit sometimes takes him at night, when he cries out, and his limbs are convulsed; pulse 100, feeble; heart and lungs seem healthy; urinary organs present nothing unusual. Of late he has lived rather poorly, being ill off for means; and though he has by his own account had a variety of medicines, he is getting worse every week. The treatment consisted at first of a few pills of ext. hyoscy and hyd. c. creta at night, with nourishing diet and a purgative when necessary. Whatever good this might have done in improving the stomach, it had no effect over the fits, and these seemed greatly to exhaust him. As he had already taken much medicine, I gave him now (about March 25) ext. belladonnæ, gr. ½; aquæ, ʒss.; M. ter. die.; and he is to leave off the pills and all other medicine. He took the belladonna for ten days, during which time he had no fit. He, therefore, was ordered to continue the same for another ten days, bringing him to April 15, 1860, without any fit.

At this period a very careful examination of the cervical spine detected a thickening over the upper vertebræ on one side, and this spot was rather tender. An emplastro iodinii was applied here. He says that he feels stronger and better, and now has no retching or sickness, still he has a wild excited look, and is evidently in a very nervous state. He got in place of the belladonna tinct. hyoscy, ɱxv., aquæ, ʒss., ter. die. for a week, with some relief, and then I lost sight of him for a time. By the middle of May it seems he was much better, and went one Sunday for a very long walk with his father; on his return feeling very tired, his father treated him to some gin, after which he had a fit, the first since he has taken the belladonna. On my seeing him a short time after I ordered him the belladonna again for a fortnight in increased dose (gr. ¼, I believe, ter. die.). The extract I knew to be very good and powerful; and as the patient was very uncertain in his visits to me, I feared to put him on a large dose. I did not see him again till March, 1861, when I hardly knew him, he looked so stout and well; he told me the fits had left him, and that though at times he felt nervous, still he was now married, and able to earn a good living, and believed himself perfectly cured; his neck was now to all appearance sound and well.

This case cannot be called a severe case of epilepsy, still the fits were so severe and so frequent that the patient had to leave a good situation, and these fits remained unamenable to apparently judicious treatment. Once the patient was told he had a tumour in his brain, but what led to this observation he did not inform me, and with the exception of the slight thickening over the cervical spine, which the iodine plaister soon dispersed, I could not detect anything indicative of actual organic disease in any part of the brain or system

generally. The patient attributed this thickening to a fall from a tree some years before; at first he scarcely heeded it, but during the last twelvemonth, while the fits have been increasing, this swelling has been unusually tender. No special sensation was ever felt in it immediately before the invasion of a fit.

Finsbury-circus.

ON DYSMENORRHŒA AND STERILITY.

By JOHN COGHLAN, M.D., etc.

No. III.

SINCE my first communication in June, 1861, on the advantages to be gained by dividing the os and cervix uteri in certain cases of dysmenorrhœa and sterility, I am happy to find that the attention of the Profession has been actively directed to this subject. But from the statements and opinions now and then advanced in our Medical periodicals, and from the controversy at present pending regarding the priority of claim to the proposition of splitting the uterine canal by means of Holt's dilator, I fear that, instead of, as formerly, ignoring the existence of mechanical obstruction as a disease to be remedied, we are now going into the opposite extreme, and interfering by operation where operation is not necessary. In the healthy state of the uterus, which has never been impregnated, if we except a day or two immediately succeeding to a menstrual period, we find considerable opposition to the passing of the smallest-sized sound into its cavity. On the other hand, if we find the canal of the cervix and the os internum very patent, we may take for granted that this state is dependent on some disease of the organ or its appendages. When advocating the incising of the os and cervix uteri, I certainly never intended that we should, by operation, produce that state in the healthy canal which is rarely to be found but as a result of disease. The cases in which incision is eminently valuable are those in which the os and cervix are hypertrophied, the cavity of the cervix obliterated, and the cervical canal greatly contracted. In such the suffering at the menstrual period is very great, and Medical treatment perfectly powerless, except for the purpose of affording temporary relief. But the relief by incision, properly carried out, is generally perfect. In those cases there is, I have no doubt, every variety in degree—from the severe form, which I have just mentioned, to that in which we only find a greater resistance than usual to dilatation, from some thickening of the tissues about the os internum. When a case of dysmenorrhœa presents itself to me which has resisted all the usual modes of Medical treatment, and which I have reason to suppose is dependent on mechanical obstruction, my mode of proceeding is, first, to ascertain the sized instrument which may be passed into the cavity of the uterus. If a No. 2 bougie will pass without any obstruction to the os internum, and through it by a little steady pressure, I at once decide that it is not a case for incision. But should a No. 1 not pass, or pass with difficulty, through the cervix, and not at all through the os internum, I would then incise with my probe-pointed hysterotome. But before doing so, I would make good the passage of the bougie by dilating by means of a small plug cut from a piece of soft yellow pine wood, which had been compressed in a vice to one-third of its bulk for some hours before. Having effected the passage of the bougie corresponding in size with the probe point of the knife, the operation of incision, if the knife be in good order, and the after insertion of the leaden tube are perfectly easy. I prefer to obtain the dilatation we require by means of the compressed pine wood, though it may be more quickly, but with more irritation, produced by a plug of the laminaria digitata. As to incising the os and cervix by means of any of the sheathed knives which have been proposed for that purpose, or splitting the canal, surrounded as it is in these cases by thick, unyielding walls, by that admirable instrument for its legitimate purpose, Holt's dilator, I think it absolutely unjustifiable. The fact of being able to introduce any of those instruments into the cavity of the uterus is, to my mind, proof positive that incision is unnecessary. I write thus strongly, as I should be sorry that a really useful operation should, by its abuse, come into disrepute. Another reason for avoiding unnecessary instrumental interference is, that operations on the cervix and cavity of the uterus, though rarely, are sometimes followed by a most painful and distressing train of symptoms.

Wexford.

NOTE ON AMAUROSIS WITH HEMIPLEGIA.

By J. HUGHLINGS JACKSON, M.D.,

Assistant-Physician to the Hospital for Epilepsy and Paralysis, and to The London Hospital.

I HAVE recently noticed that when loss or defect of speech occurs with hemiplegia, the hemiplegia is on the right side. I have seen forty-one cases, and in one only was the paralysis on the left side. This is a mere statement of facts, and does not involve any theory on my part. M. Broca, however, has held for some years (grounding his belief on post-mortem examinations) that the left side of the brain only is the seat of the faculty of language. Again, M. Trousseau has only once seen hemiplegia on the left side with loss of speech.

I premise the above in order to take away to some extent the singularity which attaches to the question I am now about to ask, viz., when double amaurosis attends hemiplegia, which generally is the side of the body paralysed, the right or the left?

I should feel extremely obliged if the readers of this journal would help me to settle this question. I simply wish to know the side of the body paralysed when there is any hemiplegia with double amaurosis, and whether the sight on the side of the paralysis is worse or better than on the other. In the cases of this kind that I have collected the hemiplegia has been so often of the left side that it seems to me to be desirable to see if it is so in a larger collection of cases.

Of course, the more particulars I could obtain the better it would be, but the point I have indicated is the one most important to me at present. But there is another next to it in importance. Just as hemiplegia with loss of speech is frequently produced by embolism, so I believe the two symptoms —amaurosis with hemiplegia on the left side—are now and then produced in the same way. It would, therefore, be well to examine the heart in such cases. Again, amaurosis now and then follows convulsions in parturition, just as hemiplegia (on the right side with loss of speech) does. It would be of great interest to observe the side of the body affected in these convulsions. I need scarcely remark that I do not mean cases of sudden amaurosis of *one* eye from embolism of the arteria centralis retinæ.

5, Queen-square, W.C.

REMOVAL OF A LARGE NEUROMA FROM THE MEDIAN NERVE.

By Dr. FRANCIS D. BULLEN,

Senior Surgeon of the Mercy Hospital, and Assistant-Surgeon to the North Infirmary, Cork.

JAMES N., aged 38, admitted to the private ward of the Mercy Hospital September 15, 1863. About five years ago his left arm was amputated in Canada, having been crushed in a machine. The limb was removed *two* inches above the middle of the humerus, leaving a very short stump. He says the ligature on the brachial artery was cut very close, and never came away. After the operation he suffered extreme hardships, having been obliged to walk in the snow every day to a village more than five miles distant from his dwelling where the Medical man who dressed the stump resided. From the date of the operation he continued to suffer excessive pain in the stump, especially along the course of the median nerve. On making an examination, I recognised the presence of a large neuroma. It was proposed to remove the bone at the articulation; but he would not submit. On laying bare the median nerve it was found to be extensively diseased, and a large neuroma attached to its extremity was removed. When, however, a closer examination of the parts was made, I found the whole nervous structures deep into the axilla to be diseased. The incision was extended, exposing the whole axillary space, and large portions of the brachial plexus were dissected out. When making the dissection, the axillary artery was unavoidably wounded, giving rise to formidable hæmorrhage, which was arrested by tying the vessel. Immediately after the operation, and during the next day, the patient was seized with tetanic symptoms, violent spasms of the stump, trismus, tightness about the throat and difficulty of swallowing. These symptoms yielded to active purging, followed by opiates. He left the Hospital in three weeks, and has never had any return of the pain or uneasiness. In a similar case I would not advise the same operation, but would insist upon removing the bone from the articulation. To prevent a recur-

rence of the disease, it is necessary to extirpate the whole of the diseased nervous structures, and there would be less danger of hæmorrhage from the deeper seated vessels in the axilla, which it is difficult to control.

ON THE

ACTION OF THE BROMIDE OF POTASSIUM.

By S. W. D. WILLIAMS, M.D., L.R.C.P. Lond.,
House-Surgeon General Lunatic Asylum, Northampton.

Reading some remarks in a late number of the *Lancet* on the action of bromide of potassium, and having tried the drug extensively for the last five months, it has occurred to me that a few observations on its action may not be unacceptable to the readers of the *Medical Times and Gazette*.

Through the kindness of Dr. Wing, the Superintendent of the Northampton General Lunatic Asylum, I have been enabled freely to try it in as many as thirty-seven cases. These were all epileptics, and I append a table showing in one column the number of fits registered during the last five months of last year, when they were taking no medicine, and in the other the number registered during the first five months of this year, when each case was taking on an average ten grains of the salt twice daily.

I may premise that the greatest care was taken that, for the whole of the ten months during which these thirty-seven patients were under observation, their lives, with the exception of taking the bromide during the last five, should be spent under as near as possible the same circumstances.

Males' Names.	Fits during last Five Months of 1863.	Fits during first Five Months of 1864.	Females' Names.	Fits during last Five Months of 1863.	Fits during first Five Months of 1864.
W. M.	148	107	E. H.	23	19
J. R..	69	45	E. J..	25	37
J. B..	32	21	M. K.	60	27
J. J. .	246	91	E. H.	29	9
W. L.	55	37	E. W.	50	56
S. L. B.	19	24	C. S..	17	23
T. H.	40	29	S. A.	82	85
C. B.	52	46	M. L.	20	5
R. H.	112	102	A. S.	41	22
G. M.	47	64	E. G.	46	53
W. W.	36	37	H. W.	1	..
J. L. M.	33	26	M. L.	57	8
T. G.	13	4	A. C.	11	22
R. G.	30	9	M. C.	1	..
J. K..	25	16	S. A. P.	577	556
E. E.	8	14	S. A.	1	..
W. O.	10	10	S. S..	73	37
W. M.	29	14	E. G.	13	11
J. J. .	8	10	..	..	..
	1012	706	..	1127	970

From this table it will be seen that the number of fits amongst the males decreased by 306, and amongst the females by 157; that all the patients but 5 males and 6 females were benefited more or less; that the improvement was, however, more apparent amongst the males than the females; but that no patient of either sex was entirely cured. It is right to remark that all these patients are more or less insane, and many of them extremely violent at times.

Mr. Henry Behrend, the writer in the *Lancet*, confines his remarks to the powerful effect this drug has on "insomnia and restlessness, accompanied and dependent on nervous excitement and irritability," and this statement my own observations fully corroborate; but I have not the same confidence in recommending, as he does, the unfettered use of half-drachm doses; for in several of the cases recorded above it was found necessary to reduce even the average—ten grains twice daily; and in the majority the first use of the drug was accompanied by sickness and lassitude.

Those patients on whom the drug seemed to take the most effect in this way were seven in number; after using it for a few days the action of their hearts became slow and fluttering, the eye lost its lustre, the skin was cold and clammy; they had a wearied, anxious look, and complained of headache, and sickness, and shivering, and of unusual weakness at the knees, and invariably sat crouched up by the fireside all day, evidently devoid of all energy and resolution. Curiously enough, in all the cases thus powerfully affected the fits were increased instead of diminished.

The drug excited hypercatharsis in two patients, which was repeated again and again each time it was renewed; the fits in both these cases were diminished; in the case of the female, from 41 to 22.

One patient, S. A., was apparently, five months ago, one of the most healthy persons in the home—fat, strong, and rosy; but soon after taking the bromide, the peculiar symptoms described above developed themselves, and the medicine was immediately omitted; but, although she rallied a little, her system never thoroughly recovered itself: tubercles became developed in the lungs, and she died towards the end of April. Truth compels me to confess that I have my doubts whether the bromide of potassium had not something to do with this poor girl's death—at all events, this occurrence has made me very watchful when using it.

On the other hand, considerable benefit has arisen from its use in some cases; it undoubtedly exercises a most powerful influence on the nervous system, and often soothes the irritability of epilepsy, even if it does not diminish the frequency of the fits, when no other medicine will take any effect, and in this way will be found a most valuable adjunct to the repertory of an asylum Dispensary. I cannot think that it has much effect, however, on the sexual system; for in some cases where it was used more especially with that view, there was no apparent result, but of its powers in inducing sleep in cases dependent on nervous irritability there can be no doubt, and often from ten to twenty grains twice daily will suffice to effect this.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

GUY'S HOSPITAL.

INDUCTION OF PREMATURE LABOUR FOR CO-ARCTATION OF PELVIC BRIM — VERSION — CHILD BORN ALIVE IN ONE HOUR—RECOVERY.

(Under the care of Dr. BRAXTON HICKS.)

[Reported by Mr. Phillips, Resident Obstetric Clerk.]

Sarah S., aged 32, was admitted into the Hospital, under the care of Dr. Braxton Hicks, on March 24, 1864, being eight months advanced in her fourth pregnancy.

Her first child was born alive without any instrumental interference, but in her second and third confinements the forceps were applied, and the children born dead.

On March 30 the os uteri was found considerably dilated, although she had had no pains. An elastic bag was introduced into the cervix, and in a quarter of an hour the hand could be introduced.

The head was found presenting. Internal version was then performed, one leg brought down, a dose of ergot was then administered, and the uterus acted strongly, so that a living female child was born in an hour. Both mother and child did well.

PLACENTA PRÆVIA—VERSION—RECOVERY.

Harriet H., aged 33; fifth confinement.

The patient lost a large quantity of blood a month ago, which frequently recurred, but more especially the last week, during which time she has had slight pains.

On April 22 the vagina was found full of clots, and the placenta emplanted partially over the anterior and left part of the os, which was almost fully dilated. Membranes not ruptured. Very slight pains. Patient anæmic.

Internal version was performed without chloroform, a foot secured and brought down. Ergot was then given, and uterine pains occurred in half an hour. The child was still-born.

There was no hæmorrhage after the breech engaged the pelvic brim. The mother did perfectly well.

PLACENTA PRÆVIA—COMBINED EXTERNAL AND INTERNAL VERSION—RECOVERY.

Caroline B., aged 43, in labour with her ninth child at the eighth month. Former labours normal. Severe hæmorrhage six weeks ago, which had recurred at frequent intervals unaccompanied by pain.

When seen on May 2 the os was fully dilated, the placenta

implanted nearly over its whole extent. Head presenting. Membranes not ruptured.

Podalic version was performed by Mr. Phillips, resident obstetric clerk, by Dr. Hicks' method, and three doses of ergot administered. Uterine action followed in an hour and a-half, and the child was soon afterwards born; it had evidently died of anæmia.

The mother recovered without a bad symptom.

PLACENTA PRÆVIA—COMBINED EXTERNAL AND INTERNAL VERSION.

Eliza K, aged 44, was taken in labour with her tenth child early on the morning of May 15, at the full time. For the last month she had been subject to hæmorrhage at intervals.

In the afternoon the os was about the size of a five-shilling piece, the placenta attached to the anterior and left side. There was a temporary cessation of pains and hæmorrhage. Podalic version by Dr. Hicks' method was performed by Mr. Phillips. Ergot was then given, and a still-born male chiid born in two hours. Mother did well.

HAND PRESENTATION—CEPHALIC VERSION—RECOVERY.

Esther B., aged 20, in labour with her second child on May 24. Hand presenting. Membranes not ruptured. Os uteri dilatable. Cephalic version by the combined external and internal method was then performed, and a small living child born in about half an hour.

ST. MARY'S HOSPITAL.

EIGHT CASES OF BRONCHITIS AND PNEUMONIA, WITH REMARKS ON TREATMENT.

(Under the care of Dr. HANDFIELD JONES.)

The following cases of inflammatory lung disease seem to me worth recording with a view to the question of treatment. I shall give the histories first and comment on them briefly afterwards.

Case 1.—R. F., aged 24, male, admitted August 28, 1863. He had been ailing about fourteen days; had not been laid up before. He complained of pain in the right side and difficulty of breathing; expectorated a large quantity of muco-watery, blood-tinged material. Before his admission he had spat some blood. His pulse was soft and feeble. Urine was high coloured. He had copious perspiration. On September 1 he was much better, was worse the next day. He was leeched twice, on August 29 and September 2; took mist. scill. co. subinde on August 29 and 30, and on August 31 was ordered tannini, gr. v.; acid muriat., ♏j.; spt. æth. chlor., ♏v.; liq. opii sed., ♏iij., aq. 2dis hôris; port wine, ʒiv., increased next day to ʒviii. He died September 3. I have no record of the physical signs, but I have no doubt that they were of the ordinary character. *Post-mortem.*—Brain, heart, kidneys, spleen, and left lung healthy. Liver seemed rather fatty, and contained at upper part of right lobe a calcareous mass the size of a pea. Right pleura contained near a gallon of dirty grey turbid fluid. Right lung at upper part compressed, at lower highly œdematous and engorged, and at one part contained a large mass of blood clot as large as the closed fist. Left lung was quite crepitant.

Case 2.—Mr. D., aged 65, seen April 28, 1860. Very stout and large made, not tall. Has been suffering notably with his breath about fourteen days. Has paroxysms of dyspnœal distress. Can't lie down for dyspnœa. Coughs, but spits little; he says he can't get it up. Refers his chief distress to the throat. Respiration 42 or more in the minute. Air enters pretty freely into both lungs, with some semi-dry râle in left back and front. Heart's action feeble, sounds scarcely audible. Pulse soft and weak. Urine red, scanty, and thick. Has been well mustard-poulticed and blistered, but without benefit. Suffered in the same way with his breath about six weeks ago. Got better under the use of ammon. carb. and port wine. He had then an injury to the leg with extensive extravasation of blood; the wound is nearly healed now. Ipecac. pulv., gr. xx. statim; liq. ammon., ♏viii.; spt. æth. s co., ♏xxx.; mist. pot. citrat., ʒj., 2dis hôris; wine and beef-tea. 29th.—Some clear relief from the emetic; has been better on the whole to-day, but suffers again greatly with dyspnœa to-night. Urine loaded, and thick and red. Pulse 90, weakish. Loud bronchial noises in both fronts, quite masking the weak heart sounds; air enters imperfectly into the lower and posterior part of left lung with râles, more freely into upper. In right back breathing is more free, but attended with much râle and fine crepitation. He refers as yesterday his principal distress to the lower part of the neck, feeling as if something was obstructing his breath there. May 1.—Urine very loaded. Dyspnœa continues much as before, with very marked paroxysmal aggravations. No sleep at all at night. Scarce any expectoration. Pulse of fair force. Physical signs of general bronchitis very marked. Lower parts of both lungs posteriorly very much congested, not well resonant; air does not enter freely. Ant. pot. tartr., gr.½, o. hôra ad vices iij. ad v. May 7.—He took the above for two days at the rate of a dose every hour, and then 2dis horis for about two days, when not appearing so well it was resumed at the former rate. He has improved very much, can lie down well, and has not near so much dyspnœa; expectorates freely. Pt. 15th.—He took the antimony about two days longer, is now taking quinine, and is thoroughly convalescent. Is not pulled down or depressed at all.

Case 3.—C. A., aged 16, carman, admitted May 19; ill two days. Has pain across chest; pulse feeble; skin cool; urine red; tongue not much coated; spits much black stuff; breathing not very distressed, but short and catchy; tolerably free breathing in left back, with a little râle; very marked dulness in right back, extending up nearly to the top; dulness also in the front and lateral region; vesicular breathing null, but bronchial marked, with quasi-frictional crepitus; better breathing at top of lung, but even here it is imperfect. June 3.—Pulse weak, soft. Skin warm, moist. Temperature 99° in axilla. Respiration 32. Marked dulness still in right back at lower part, not full resonance in left. Very weak breathing at lower part of right, with much moist râle above; moist râle and more breathing in left back. No expectoration until to-day. Urine full coloured, clear. Seems comfortable lying in bed. 7th.—Pulse 114. Respiration 30, shallow. Temperature 97°. Slight streaks of blood in sputa, which are scanty and sticky. Lung clears up slowly; there is marked dulness in lower three-fourths of right back, with weak breathing and crepitation; breathing almost null at base. 12th.—Is up and about; looks better. Pulse 120. Respiration 37. Temperature 97°. State of right lung about the same. 21st.—Much more breathing in right back with some râle; dulness still very apparent. Spits up a good deal of thick yellow purulent matter. Pulse 100, weak. Temperature 97°. Respiration 26. The treatment pursued was almost placeboic, except that after June 10 he had dec. and tr. cinch., ter die. A large linseed poultice was kept constantly on the right back during the first nine or ten days.

Case 4.—H. B., aged 3½; admitted March 21. Ill since 18th with sickness; coughs, and is thirsty. Breath very short. No appetite. Bowels not open. Urine scanty. Has slight convulsions at intervals; is unconscious from five to ten minutes, works with his eyes then. Air enters pretty freely into both backs; but the respiration is harsh, and attended with some expiratory sound, especially in the right back. Is pretty strong when well. Calomel jalap statim, vin. ipecac., ♏8; pot. nitratis, gr. 2½; mist. pot. citrat., ʒss., o. hôra ad vices iv., postea 2 dis. vel. 3tiis hôris. 22nd.—Breathing grunting and very frequent; air enters freely into right back, and causes some crepitation at the base; enters freely into left back; no dulness, expiratory sound less marked. Motions green and slimy; tongue coated; pulse feeble; skin cooler; passes motions under him. For two hours last night appeared unconscious and convulsed; mother thought "he was taken for dead." Vin. ipecac., ♏160; pot. nitrat., gr. 40; tr. opii, ♏35; mist. pot. citr., ʒiij. M. ʒij. 3tis hôris. Pulv. Doveri, gr. jss., h. n. 24th.—Still very thirsty; face flushed; lips red; tongue much coated. Slept better last night. Breathes more quietly. Pulse quick and weak. Skin fully warm. Respiration 66, very shallow. Air enters pretty well into left lung; feebly into right, especially at the base, and there is much moist râle in both. Bowels not open. Perspires very much by night, but not by day. Much cough. Acidi nitrici, ♏20; tr. cinchonæ flavæ, ♏130; spt. æth. chlor. ♏25; aq. ad. ʒiv. M. 2 ʒ. quater die. Turpentine stupes to the backs. 26th.—Is decidedly better; tongue much cleaner; breathing irregular and shallow, apparently easy; no collapse of costal cartilages in inspiration. Both backs resonant; pretty good breathing, with a little râle in both. Pt. c. mist.; vini ferri, ʒj., bis vel ter die. 31st.—Is doing well; coughs much, especially at night; takes more food. Perfectly natural, quiet breathing in both backs. Pt. ol. morrh., ʒj., bis die. April 7.—Gets on nicely. Rept. oleum; ferri and quin. citrat., gr. 3; aq., ʒij., ter die. 14th.—Has much cold perspiration at night; rolls his eyes about,

and bursts out crying then; wanders and talks in his sleep; otherwise gets on very nicely. Pt. c. mist. c., gr. iv., ter die. 25th.—Very copious nocturnal perspiration, described as cold sweats, with rambling delirium. Pt. May 2.—Cold sweats have ceased; sleeps better; is stronger. 12th.—Improving. Ceased attendance.

Case 5.—Miss C., aged 4; seen May 24 in consultation. Ill with measles ten days; pneumonia has existed the last six or seven. There is now great irritability; flushed cheeks; hot skin; quick, weak pulse; whity tongue; very quick respiration, with harsh, single bronchial breathing in both backs; no absolute dulness. Urine passed in good quantity. Antimony has been given, but has been discontinued, and liq. ammon. acet., spt. ammon. co., given instead; mustard poultices have been applied, but no blisters. Beef-tea and milk have been given freely. The child was evidently in a critical state; it seemed as if tonics would hardly be borne, and there was too much prostration to use depressants. I advised pulv. Doveri, gr. ij. statim, and to be administered subsequently according to circumstances, and the same mixture to be continued. In a week I heard from the gentleman in attendance that the child was fast improving; the Dover's powder had a very good effect—in fact, the child improved from the time it was given.

Case 6.—E. P., aged 2½, female; admitted April 25. Ill seven days with whooping cough, wheezes dreadfully; vomits with the cough, which comes on about every two hours; the attacks are severe, and exhaust her much. No dulness in backs, but breathing is rather obstructed in the right, and attended with semi-moist râle; breathing harsh in left. Skin hot. Bowels rather confined. Vini ipecac., ♏90; acidi hydrocy. dil. ♏24; mist. pot. citratis, ʒiv. M. ʒij. 3tis hôris. 28th.—Breathing hurried; cough comes on more frequently, every hour, and severely; whoops very much. No marked dulness in backs; air enters pretty well into both lungs, best into left; moist râle in both. Pyrexia continues; only ʒj. doses of medicine given. Pt. c. mist. ʒij. Brandy and milk to be given. May 2.—Is a great deal better. Air enters pretty well into both lungs without much râle; less cough, passes two or three hours without any; hands hottish; epistaxis on 30th. 5th.—Breath worse since yesterday afternoon, especially after taking any food; floor of room washed on 3rd. Bronchial tubes much obstructed in both lungs, most in right; respiration much weakened in both; cough violent at times; urine not free; hands hottish. Turpentine stupes to backs. Pulv. ipecac., gr. v. p. r. n.; acidi nitrici, ♏ xx.; tr. senega, ♏ lx.; aquæ, ʒ iv.; M. ʒ ij. quater die. 9th.—Is a great deal better; appetite improved. On the 7th the lungs were in a much improved state; there was free breathing in the left, deficient in the right, but no distinct râle; cough less; slept nicely last night. She took subsequently nitric acid and liq. opii sedat., with acid hydrocy. dil ter. die. for a week, then nitric acid with liq. opii sedat. and tr cinch., with ol. morrh. for another week, at the end of which she was quite convalescent. There was good resonance and fair breathing in both backs; she whooped scarcely at all. The same treatment was continued a week, and then iron and quinine, with the oil, given some three weeks longer, till she ceased attendance.

Case 7.—E. L., aged 20, male, admitted June 2. Ill five days; complains of tightness of chest, headache, inability to cough, anorexia, thirst, bad sleep, weakness; has brought up blood lately. Pulse feeble; tongue coated. 6th.—Appears seriously ill; in lower half of left back there is absence of breath-sound, bronchophony, tubular breathing, and very marked dulness; in the rest of the lung the breathing is weak and harsh. Good breathing in right lung. Pulse 93, weak, small; skin moderately hot; feels giddy and weak; bowels confined; no sleep; urine high coloured; great thirst; much cough. Ordered mist. ammon. effervesc., with ammon. carb. in excess, quater die., and turpentine stupes. 9th.—Looks decidedly better; cough better; tongue much more natural; feels very weak. Marked dulness in left back, bronchial breathing, with commencing moist râle in lower half or rather more of it; skin quite cool. Pt. 13th.—Complains of pain round lower part of chest; cannot draw his breath freely; much stronger; tongue quite natural; some dulness in left back, and the breathing is weaker than in the right, but all râle has ceased. Mist. quinæ, ʒj. tr. ferri muriatis, ♏xx. ter die.; ol. morrh., ʒj. ter. die. 20th.—Is a great deal better; stronger; tolerably good resonance in left back; air enters well, but there is some prolongation of the expiratory sound. 30th.—Doing well. Pt.

Case 8.—E. M., female aged 6, admitted April 2, 1863. Ill since middle of December; had inflammation of lungs, and has not been well since; has never had cough; bad appetite and short breath. Both backs notably dull at lower part, and full of moist and semi-dry râles in larger and smaller tubes; loud and free breathing in both fronts. Loud regurgitant mitral murmur heard all over chest; face rather swollen, and cheeks flushed; pulse quick, excited, rather weak; urine very high coloured; bowels open. Pot. acetatis, ʒ jss.; vin. ipecac., ʒ ijss.; tr. opii., ♏ xl.; mist. ammon. acet. ad. ʒ viij.; ʒ ss. 2 dis. vel. 3 tis. horis. Turpentine stupes. 6th.—Improved; was relieved immediately by the turpentine stupe; has been made sick by every dose of medicine, which has been given regularly. The breathing in left back is full and clear; in the right is pretty full, but attended with some râle at the lower part; dulness much less. Respiration, 54; temperature of closed hand, 98°. 9th.—Hands feel nearly cool; temperature, 92°; respiration, 48. Diffused moist râle in both backs; medicine continues to make her very sick. Repeat turpentine stupe. Acidi nitrici, ♏ xv.; oxymellis. scill., ʒ jss.; aq., ʒ vi. M. ʒ ss. ter die. 13th.—Is much better; breathing full and free in left back, pretty free in right, but not so much so as in left, and attended with moist râle. From this date her recovery steadily progressed, under the use of quinine and other tonics, until she was discharged well, June 1.

Remarks by Dr. Handfield Jones.—The chief point which the foregoing histories seem to me to illustrate is the very varying quality and character of inflammatory lung disease, both in different cases and in different stages of the disease. This is surely no novel doctrine, but it seems to need to be kept in view and held up to our memory every now and then. If not, how comes it that we hear of statistics of pneumonia treated according to some uniform method—of a denial that acute disease can be cured by means which depress and reduce vital and nervous power—of assurances that generally an expectant is better than an active treatment? Brandes well says:—"Each case must be studied by itself as well as each epidemic." In my first case nothing could be more evident during life than that the condition was one of marked asthenia, and that no lowering treatment could have a chance of success. This peculiar state did not depend on disease of the kidneys or other organs inducing an unhealthy nutrition generally; for the post-mortem showed that all were normal, except the one affected part. Neither was there any typhus or typhoid fever to account for the prostration. Nothing, therefore, remains but to admit that a healthy man may be attacked by a low asthenic form of inflammatory disease. This point has been demonstrated already by various good authorities. In the second case it is clear that a moderately stimulant treatment entirely failed, while antimony in large amount had a speedily curative effect. It is marvellous to me how any one with even a moderate experience of the use of this drug can assert, as Skoda does, that it affords no relief unless it produces vomiting or diarrhœa. Both in cerebral and pulmonary affections it acts best, in my experience, when it produces no notable disturbance of either kind; diarrhœa especially I look upon as quite interfering with its remedial agency. Hjaltelin has recently described an epidemic of pneumonia of a highly sthenic character in Iceland, in which blood-letting, antimony, and calomel were evidently beneficial. I think it can hardly be doubted that his cases were very different in vital quality from the majority of those which London Practitioners, at any rate, have to deal with. The third case is a good example of gradual, and rather slow recovery under expectant treatment. The right lung was extensively involved, and the left was not exempt; yet the symptoms were far from urgent. I should by no means advocate the same treatment in this as in the preceding case, though I think recovery would have ensued earlier if somewhat more active measures had been adopted. In the fourth case a decidedly tonic treatment was put in force on the sixth day of the disease, depressants having been employed previously with but little apparent advantage. I say apparent, for I am fully convinced that without the modification which they induced the tonic would have been absolutely injurious. I put it to any man of experience whether such a medication at the outset would not in all probability have aggravated the symptoms. Yet its "tempestivus usus" had the best effect. In a similar instance, after such improvement had occurred, tr. ferri. muriatis was given on the ninth day of the disease, but had to be omitted three days later, as it appeared to increase the pyrexia and cough. Tr. veratri viridis was substituted, which the child had taken before, and was continued for fourteen days, with the result of steady improvement. In the fifth case depressants had failed; there was imminent peril;

tonics were judged unsuitable, and would probably have done harm; but a decided sedative acted most beneficially. In the sixth case there was severe bronchitis, associated with pertussis. The bronchitis was very beneficially modified for the first eight or nine days by depressing remedies; though at the same time support was given; subsequently, when a relapse occurred, and the condition had become really very critical, nitric acid and senega turned the scale in favour of recovery. Opium and bark were markedly beneficial in conjunction with the acid, in removing the hyperæmia and tendency to exudation of the bronchial membrane. The action of opium in this and in like cases seems to me to amount to a proof that it cannot be a relaxant of vasomotor nerves, as some regard it. This case has much resemblance to the fourth, a tonic medication in both being employed at a certain stage of the disease, when there was still considerable pyrexia and when the inflammatory action was by no means arrested, with a curative effect. The determination of the proper time for the administration of tonic remedies is often a very difficult matter. The chief points to consider are, the state of the skin, the pulse, the urine, and the general strength. Copious perspiration, free urinary excretion, weak and frequent pulse, and general debility call for tonics, no matter what the physical signs may be. I believe many good Practitioners are in the habit of administering calomel or hydrg. c. cretâ, together with ipecacuan or antimony, from the commencement of the treatment in cases of broncho-pneumonia in children. I must say I think the mercury is unnecessary in London children, and, if so, I fear, injurious; the ipecacuan or antimony will do all that is requisite to allay the tissue inflammation; and if the morbid action continues unchecked, it is because other remedies are needed—viz., nerve-toners, to contract the minute arteries and diminish the hyperæmia. I am sure it is a view of some practical value to distinguish two varieties of inflammatory action—one in which the essential disorder seems to be the derangement of the normal nutrition force of the tissue, so that blood is attracted in undue quantity to the part; the other in which vasomotor paralysis leading to arterial dilatation is the chief defect, causing vessels of weakened tone to become gorged with blood, and promoting the occurrence of copious liquid effusions. If tissue sedatives are used when nerve-toners are requisite they are of course injurious, and *vice versâ*. The former still further depress the feeble nervous powers; the latter irritate the excitable and inflamed tissue. The Physician's skill consists in giving each seasonably.

The seventh case was one of unilateral asthenic pneumonia, where, under drug remedies alone (for the patient was an extern), recovery ensued very favourably. He was convalescent in ten days after treatment was commenced, while No. 3 was hardly so far advanced in double the time, with all the advantages of Hospital care and nursing. Clearly this was no case for depressants.

The eighth case may be ranked with the second in showing the highly beneficial effect of depressants in suitable conditions. This child had severe broncho-pneumonia, with a damaged heart constantly tending to increase the pulmonary congestion. She was kept thoroughly nauseated for a week, and to all appearance with very considerable relief to the symptoms. The tonic given on the 13th was not so urgently needed as those given in cases four and five. I think she would have done tolerably well without; certainly, however, it accelerated recovery. Would it not have been absolutely mischievous if given at the commencement? Yet surely nitric acid is more restorative than vin. ipecac.

The general result of these observations plainly is, that we have to think much less of the name of the disease we are treating than of the special pathological condition of our patient. We must endeavour to appreciate the quality of the morbid action, which may be very different in different cases outwardly much alike, and different also in different stages of the same case. There should be no such thing as an uniform mode of treatment; each case must be studied by itself. I cannot conclude these remarks better than by subjoining those of the admirable Trousseau, who says ("Tr. de Therapeut.," vol. i., p. 540),—"Nous ne sommes point de ceux qui pretendent apprendre aux elèves a traiter la pneumonie ou la rougeole de Paul ou de Jacques dans cinq ans comme demain, à Marseille comme à Lille, etc. . . . Dans les magasins d'habillement d'une armée il y a des uniformes pour grande, moyenne, et petite taille. Les hommes relativement a leur taille sont de même ainsi classés. De cette manière on peut confectionner des habits d'avance. Ces vêtements qui vont à tout le monde ne s'ajustent a personne."

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Medical Times and Gazette.

SATURDAY, JULY 23.

THE COLLEGE OF PHYSICIANS AND THE GENERAL PRACTITIONER.

It must not be hastily assumed that it would be alike for the benefit of the College of Physicians, and for the interest of the General Practitioners, that those gentlemen amongst the latter body who desire to possess the licence of the College should obtain the same without examination and on the payment of a nominal fee. The pages of this journal testify over and over again to our appreciation of the successful efforts made by the Society in Blackfriars for the improvement of the education of the General Practitioner, and they also testify to our strongly-expressed opinion that the Practitioner thus educated was worthy of a more strictly professional designation than that which the Society of Apothecaries have power to grant. The Physician of the million had acquired a higher rank, and was entitled to a more appropriate title than that of "Apothecary." The scientific Practitioner who had ceased to be a mere mixer and seller of drugs desired to possess some public and official recognition of the metamorphosis. The College of Physicians recognised this want, and three years since opened its portals to the class which, thirty years ago, under a different *régime*, it had spurned from its threshold. The movement at present going on amongst a certain number of general Practitioners desirous of being admitted on easy terms is the most striking evidence which can be given of the propriety of the step adopted in 1860 by the College. This proposal, however gratifying it may be to the College and to those with whom it has originated, should success attend their efforts, cannot be decided on without much consideration. The College must be just as well as generous. Some two or three hundred gentlemen have already obtained the College licence by passing an examination and by the payment of a certain fee. These gentlemen may most justly complain of others being placed on the same footing who passed no examination at the College, and who paid but a nominal fee. Had this "grace" been extended to all a few years ago, when, as we have previously remarked, all was chaos in the Profession, there would have been but little ground for complaint.

What can be done now by the College in reply to the much-to-be commended desire on the part of these Practitioners who wish thus to obtain its licence and to join its ranks? We have above indicated the chief difficulty which presents itself in the injustice which would be done to the present Licentiates. On the other hand, it must be borne in mind that in what was called the "year of grace" at the College, many Practitioners were admitted Members without being required to pass any examination, and many Members were admitted as Fellows on more easy terms than before or since. No such grace was then extended to the class of Licentiates. Is it too late now to claim this favour for them; and, if not too late,

is it prudent in the College to grant it; or is it well advised in these gentlemen to seek it? The value of a thing is measured by the difficulty or cost of procuring; and we believe that if the Licence of the College of Physicians can be had for merely asking, its value would be greatly deteriorated in the hands equally of those who possess it already and who would obtain it then. Do we, then, advise the College to refuse its License to those, however well qualified, who are not prepared to fulfil all the requirements of a student's examination, and to pay the full fee which it demands? By no means. The College has a bye-law to the following effect:—"Any candidate, being a Registered Medical Practitioner, whose qualification shall have been obtained before the first day of January, 1861, having been, with the consent of the College, admitted a candidate for the licence, will be examined on the principles and practice of Medicine, Surgery, and Midwifery; but he will be exempted from such other parts of the professional examination as his qualifications may seem to the examiners to render, in his case, unnecessary." In this judicious regulation seems to us to lie a solution of the difficulty. If a gentleman of a certain standing, possessed of the double qualification, desires to obtain the College licence, the College cannot require to find in him the possession of a student's crammed information; neither has the Practitioner a right to refuse to prove by an examination to the College that he possesses a practical knowledge of the duties of his Profession which he is daily performing. The examination of the College should be simply practical, and sufficient to show that the candidate knew well what he was doing. The license thus obtained would be of some real value. Whether it should be paid for in the full amount of pounds, shillings, and pence, is a question of perhaps less importance. In last week's journal we expressed our opinion on the subject of Medical simony, and to that opinion we may refer. To make it a mere money transaction would be ruinous to the College, and useless to the recipient. To ensure the possession of such knowledge as an accomplished Practitioner should possess, would be honourable to the College and to its new licentiates, and elevating to the whole future of the Profession.

THE WEEK.

THE HULL DISPENSARY.

We speak from ample experience when we say that of all the forms of so-called Medical charity, the Dispensary is the worst. Amongst the persons who resort to it a large portion ought to be attended by the parochial Medical officers; and a still larger portion ought to provide Medical attendance at their own cost—such as sturdy mechanics, domestic servants, and persons in receipt of good wages, who squander them in intemperance, and then come upon public charity to be relieved of the consequences. There is little or no result to Medical science for attending the trivial cases that are usually presented; and when a severe case is brought the opportunities of observation and efficient treatment are wanting. Crowds of filthy persons are kept waiting day after day in fœtid rooms and passages for medicine, which, if their time be of any value whatever, they had far better have purchased at their own cost; and children with infectious fever and whooping-cough meet and interchange their maladies even more effectually than they do in an infant-school. Neither science nor humanity is promoted, whilst our Profession is unmistakably injured. Men of character who give long and toilsome services are subject to insolence from a set of persons who give their annual guinea, and will not even take the trouble to provide proper drugs; and they are met with the taunt that they submit to this labour and degradation in order to get practice. The rottenness of the system is shown by recent proceedings at Hull. A vote of censure has been passed by the Committee on their Honorary Medical Officers. Here is the accusation:—

"During three years Mr. Kitching had attended on 119 days. Out of 3074 patients admitted on the days of his attendance, he saw 511. In the same period Mr. Dix, out of 2917 patients, admitted on 74 days, saw 214. Mr. Roberts was elected about a year and a-half ago, and on his days of attendance 1324 patients were admitted, of whom 340 were seen by him, and he attended on 54 days. The total admitted during the three years was 7315, of whom Mr. Atkinson, the House-Surgeon, saw 5266."

Nothing seems to us more reasonable than that the paid House-Surgeon should see the mass of the cases, and the honorary Medical officers only those that are most serious. However, upon grounds such as these the Committee passed a vote of censure. The Medical officers sent in their resignation. Sir Henry Cooper stigmatises the conduct of the Committee in the following terms:—

"I think the Medical staff have just cause to complain that *ex parte* statements from an unofficial source, got up in ignorance of the facts, without the knowledge of the parties accused, and brought forward without notice, and in their absence, should have been received and acted on by the meeting; and particularly when some of the parties implicated had given years of unrequited labour, and had only been prevented by indisposition, engagements, or the inconvenience of the hour, from attending regularly for a few weeks back. Speaking from a personal experience by no means limited, I do not admit that the routine duties of the Dispensary require the constant attendance of the honorary officers where an efficient House-Surgeon has been appointed."

Mr. Dix, one of the Surgeons, complains that methylated spirit had been used, and muriate of cinchona substituted for quinine. The result of a special general meeting has been that the Medical officers have been asked to withdraw their letters of resignation. We hope that if they do they will cause the institution to be put on a different footing. The *Hull Advertiser* remarks:—

"It would be much better if not only the Dispensary but the Infirmary paid more for Medical services, and depended less upon the gratuitous attendance of gentlemen to whom it must be most inconvenient. We are confident that Medical officers in Infirmaries and Hospitals exert their utmost skill as readily for patients from whom they do not expect the poor meed of verbal thanks, as for those who pay them most munificently; but this fact does not in the least alter the contrary conviction of the poor. Therefore, on their account, as well as in justice to the Medical Profession, we had much rather that the Dispensary misunderstanding resulted in the appointment of a paid Medical staff than in any attempt to perpetuate a system of gratuitous services which in future can be attended with little satisfaction on either side."

The case may be put into a nutshell. If the benevolent people of Hull desire to give Medical aid to their poorer fellow-citizens, let them pay one or more Medical officers for their services, and provide good medicines. If the elder and more experienced Practitioners are occasionally appealed to as consultants, we doubt not that they will freely give their services in suitable cases without fee, and that thus the sacred interests of humanity and of science, together with the reasonable claims of our Profession for remuneration, will be promoted.

THE JOURNALS.

The July number of the *Edinburgh Veterinary Review* has an editorial article on "Meat Inspection," based upon the report of a trial at the Leith Police Court, in which two Veterinary Professors, Gamgee and Dick, appeared respectively for the prosecution and defence. The latter, to prove that the meat seized was not poisonous, went so far as to eat portions of it raw—*de gustibus*, etc. The article we refer to is devoted to impressing upon those engaged in meat inspection the importance of careful and complete investigation. In the instance referred to, some of the witnesses did not know whether the three fore-quarters of beef seized had belonged to two or to three animals. The editor of the journal considers that "an inspector is at all times justified in condemning a carcase in which there are obvious signs of morbid change. He is especially justified in so doing when animals have been slaughtered in an irregular manner, and all the internal organs have been

thrown away. There are few maladies in which the pathological changes of the flesh are recognised at any time and under any circumstances, as in parasitic disorders of the muscular apparatus. In all other diseases of animals, when the entrails have been destroyed or somehow kept out of sight, one must trust to the examination of meat, and judge from colour, consistence, leanness, fineness, and the like physical characters, which are by no means reliable signs of any special disease. An inspector—especially if having reasonable cause to suspect that any butcher is trading in diseased animals—is well armed for a prosecution if meat is black, lean, flaccid, and especially if putrid. . . The fact that much diseased meat is necessarily very innutritious, indicates how, without demonstrating its poisonous properties, we are justified in condemning it." The same number quotes from a paper read by Dr. Wm. Thomson before the Medical Society of Victoria, on "The Identity of Pleuropneumonia (of cattle) and Measles." He states the points of analogy thus :—"In both there is the usual period of sickening, marked by fever and ague, and soon followed in both, after some days of indefinite illness, by cough, cold, watering eyes, clammy mouth, and dry, wiry skin. In the human subject the period of eruption now sets in, and of thickened respiration. In the animal there is the corresponding bronchial disturbances, and 'the bran-like dust on the coat,' owing to desquamation of the skin. The disease upon this is on the brink of its third stage. Bronchitis merging into pneumonia, expectoration, hepatisation, and fœtid diarrhœa come in rapid succession or simultaneously, and the doom of both victims is pronounced." Dr. Thomson advances, as corroborative evidence of his view, that when the last epidemic of measles visited the colony of Victoria, pleuropneumonia spread simultaneously.

Dr. Wertheim, of Vienna (*Gaz. Hebdom. de Med. et Chir.*), believes he has made a step towards elucidating the pathogenesis of psoriasis. Having observed that the arms of such patients became after a few days the seat of a fungus growth, mostly of the species known as penicillum glaucum, while that of other patients did not, he proceeded to inject an emulsion of penicillum glaucum into the crural veins of some dogs. Twenty-four hours after the injection isolated red spots, slightly elevated, appeared upon the extremities, and the eruption was rendered more active by repeating the injection. Similar effects resulted from injecting an emulsion of yeast from beer. On examining the eruption, which in its seat, symmetry, shape, and progress presented many analogies with psoriasis, microscopically he found it to be the result of obstruction of the cutaneous capillaries by the vegetable elements injected. Applying this observation to psoriasis in man, he regards the entrance of parasitic vegetable elements into the circulating system as the cause of the cutaneous lesion, and explains the greater prevalence of the disease in man (245 males to 25 females, according to Devergie) to their consuming more of alcoholic beverages than women do.

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE XXII.—MARCH 22.

THE next group of animals taken under consideration were the *Platryhini*—the term, being, however, restricted to the higher group of New World monkeys, excluding the Marmosets. They are all essentially quadrupeds and plantigrade, running swiftly on the ground, though some of them, as the Spider Monkeys (genus *Ateles*), occasionally assume the erect posture. They all have tails, which are generally long, and are modified to form organs of prehension. The septum narium is no longer thin as in man and the Old World apes, but it is very broad, and the nostrils are widely separated from each other, whence the name of the family. The nose is broad, flat, and depressed in the region of the bridge. The ears retain their rounded form, and are folded in the same manner as in man. There are no cheek pouches or ischial callosities. The nails of the fingers are more elongated and claw-like than in the last group, and project considerably beyond the extremity of the digits. The nail of the thumb is but little more flattened than the others. The thumb itself is placed nearly in the same plane, and parallel with the rest of the fingers, and is no longer truly opposable. The foot is less modified than the hand; for, whilst the nails of the four outer toes are convex from before backwards, and from side to side, that of the hallux is broad and flattened. The teats are two and pectoral; the penis pendant.

In the platyrhine monkeys, the hand is always shorter than the foot, and in most of them the entire fore-limb is shorter than the hind-limb. The genus *Ateles*, however, and some allied forms approach somewhat the type of the anthropomorpha, the anterior being of greater length than the posterior extremity. The tail presents three different conditions: in the first, seen in *Ateles*, it is highly prehensile, being lengthened, flattened at the end, and with the under surface of the terminal portion free from hair; in the second, as in *Cebus*, it has a minor degree of prehensility, and is not bare on its under surface; in *Chrysothrix*, *Pithecia*, *Nyctipithecus*, and others it has no prehensile faculty. Although the organisation of the animals of this group is in many respects lower than that of the preceding, many of them possess remarkable intelligence and docility, as shown especially in the *Cebi*, well-trained members of which genus may frequently be seen exhibiting a series of performances in our streets.

In their osteological characters they bear a close resemblance to the Cynopithecini. The dorso-lumbar vertebræ have a greater range of variation in number—viz., from seventeen to twenty-two. The sacrum has never more than three vertebræ. The spinous processes of the middle cervicals are short. The spines of the dorsal and lumbar region are inclined towards a common point. In those species with prehensile tails, the terminal caudal vertebræ are flattened. The thorax is compressed; the sternum has a flat manubrium, followed by seven or eight narrow pieces; the humerus presents the same departure in its upper end from the human type as in the Cynopithecini. In many there is a perforation above the inner condyle. The carpus has nine bones. The pollex is generally well developed, but in *Ateles* is rudimentary, consisting only of a small and slender metacarpal, surmounted usually by a small and nodular phalanx, completely hidden under the skin. The pelvis does not differ greatly from that of the Cynopithecini, though in *Ateles* it is broader, and approaches that of the higher apes. The ischia are everted, but have not the flattened rugous surfaces for the attachment of callosities. The hallux is capable of being very freely divaricated.

The cranium is generally very round and smooth, it being rare to find any considerable development of lambdoidal or sagittal crests. There is neither styloid process nor downward projection of the mastoid. In most of the genera the coronal suture, instead of crossing the skull in a straight line, is V-shaped, the apex of the frontal bone running very far back on the vertex. The parietal bones unite with the alisphenoids. A singular feature, by which the skulls of this group can be told at a glance from those of any of the Old World apes, is the absence of a bony external auditory meatus, the ring which holds the membrana tympani being placed close to the surface. In the interior of the skull the frontal bones, although they approach, do not usually quite unite over the junction of the presphenoid with the ethmoid. There is a large petrosal fossa which lodges the flocculus of the cerebellum. In *Ateles* the greater part of the tentorium is ossified. From the ordinary type of skull very great variation occurs among the platyrhine apes, the two extremes being found in the howling monkeys (*Mycetes*) and the squirrel monkeys (*Chrysothrix*). In the former the cranial cavity is depressed, and very short, the tentorial plane extremely oblique, and the foramen magnum placed at the extreme posterior end of the skull, and almost vertical in direction. In the latter the cranial cavity is moderately arched and very long, the tentorial

plane horizontal, and the foramen magnum not far from the middle of the base with its plane horizontal.

The dental formula is—

$$i\,\frac{2-2}{2-2}\quad c\,\frac{1-1}{1-1}\quad p\,\frac{3-3}{3-3}\quad m\,\frac{3-3}{3-3}=36,$$

so that there is on each side a premolar above and below more than in man and the Old World apes. The formula of the milk dentition is—

$$di\,\frac{2-2}{2-2}\quad dc\,\frac{1-1}{1-1}\quad dm\,\frac{3-3}{3-3}=24.$$

The molar teeth are elongated transversely, have four cusps, and in some genera (*Ateles* and *Mycetes*) a ridge connects the anterior internal and posterior external cusp, as in the highest Old World forms. In *Pithecia* the incisors of both upper and lower jaws project obliquely forwards. The permanent canine teeth usually make their appearance before the last molar.

The stomach is always simple; the cœcum is large, and has no vermiform appendage. The liver has usually five lobes. The arrangement of the great arteries as they leave the aorta varies, sometimes (*e.g.*, *Mycetes*) they come off as in man, sometimes (*Ateles*) as in the Cynopithecini. The lungs have commonly four and two lobes on the right and left sides respectively. The kidneys have a single papilla.

The muscular system resembles so closely that of the Cynopithecini that any detailed description would be unnecessary except upon certain points. It is interesting to note that in the spider monkeys, in which the thumb is functionless, being buried under the skin, all the muscles, abductors, adductors, short flexors, and opponens are present, the long flexor alone of the muscles usually found in this situation being absent. The interossei of the hand are essentially like those of the Cynopithecini. The extensor secundi internodii pollicis is often united with the extensor indicis. The extensor primi internodii pollicis is as usual wanting. In the foot there is in many genera not only a peroneus quinti, but also a peroneus quarti, joining the extensor sheath of the fourth toe. The interossei are no longer visible from the dorsum of the foot, but as in the lower mammals are altogether *flexores breves*, inserted by sesamoid bones into the bases of the first phalanges. The transversus pedis is well developed.

The penis is terminated usually by a large flattened button-shaped glans. The cavity of the tunica vaginalis is never shut off from the abdomen. The uterus is undivided. The females of some genera (as *Ateles*) have a long pendant organ, consisting of an elongation partly of the clitoris and partly of its prepuce, grooved underneath, but containing very little erectile tissue.

PARLIAMENTARY.

On Thursday, July 14, in the House of Lords, the Factory Act Extension Bill passed through Committee.

On Friday, July 15, the House of Commons went into Committee on the Cattle Diseases Prevention Bill. After a long discussion, in which several Irish members opposed the bill as being inimical to the interests of trade, the Government announced their determination to withdraw it. The lessons taught by the epizootics of last year have been, therefore, entirely wasted, as far as Parliament is concerned. Pleuro-pneumonia, aphthous disease, and ovine variola are likely, we suspect, to injure the interests of trade as much as the enforcement of some quarantine, competent inspection, and clean railway trucks and steamboats.

A debate of great importance to the reputation and interests of a Medical man, Dr. Flynn, of the Clonmel Lunatic Asylum, took place on the same evening. We think that the statement of Mr. Bagwell, Mr. Hennessy, and Sir Robert Peel entirely cleared Dr. Flynn's character of any charge of inhumanity.

The case, which was brought to the notice of the House by Mr. Blake, was that of an exceedingly violent lunatic having homicidal tendencies. He was placed in a strait-waistcoat, and his arms were bound. It appears that the man was in bad health at the time, but he was kept under restraint for some weeks. On removing the waistcoat, it was found that the arms had been too tightly ligatured, and some gangrenous ulceration had resulted, which made it necessary to remove him to the Hospital, where he ultimately recovered. An investigation had taken place before a board of governors, by whom Dr. Flynn was reprimanded.

The termination of the case in gangrene appears to have been in reality an unfortunate accident, dependent on the constitutional condition of the patient. We are surprised that Dr. Brady, who spoke, did not take this view of the occurrence, and refrain from pronouncing the harsh judgment he did on one of his own Profession.

Sir R. Peel agreed that the hon. member for Waterford was entitled to thanks for the great interest which he always displayed for the proper management of lunatic asylums in Ireland. But he thought that it was wholly unnecessary for the hon. member to bring this particular case under the notice of the House. The facts were, that a man who entered the asylum a violent lunatic in July was discharged cured in November, and it was not until some months afterwards that a charge of inhumanity was made against the superintendent of the asylum. The charge was inquired into, and upon the invitation of the chairman, the Government sent down Dr. Hatchell, who was present when the late lunatic was examined. The result of the examination and what followed had been stated, and he need only add that Dr. Flynn was eminently distinguished in Ireland for his successful treatment of lunatic cases, and year after year testimony had been borne by all examining authorities as to the exemplary manner in which Dr. Flynn discharged his duties as the Medical superintendent of the asylum. Taking only the last three annual reports of the grand jury upon the Clonmel Lunatic Asylum, he found in all of them expressions of approval of the condition of that institution. Considering the manner in which Dr. Flynn had performed his responsible duties, it was clear that the hon. member, who was the chairman of the board of governors at Clonmel, had felt it to be his duty to ask the Government to pronounce a reprimand upon this particular case. The Lord-Lieutenant did not act hastily upon that suggestion, but consulted the law officers, and the Solicitor-General concurred in the opinion of the chairman of the board, that, looking at the long and useful services rendered by Dr. Flynn, and considering the accidental circumstances connected with the treatment of the patient, a reprimand would be adequate punishment for any mistake. It was evident the patient had been most violent, and in a report, dated long before any charge was made against Dr. Flynn, it was stated that two keepers watched day and night for 14 weeks to prevent the patient from dashing out his brains against the wall or on the bedstead. By order of Dr. Flynn, and with the concurrence of Dr. Sheil, blisters were placed at the back of the neck, but it was apprehended from the violent character of the patient that he would tear off the blisters, and therefore the strait-waistcoat was applied. The result of this treatment had been that the patient was now at large, a sane and healthy man. He could hardly conceive any case which it was less necessary to bring before Parliament. As he had the pleasure of Dr. Flynn's acquaintance, he could bear testimony to his great abilities. The lunatic asylums of Ireland were better conducted than any asylums in other parts of the kingdom, and the Clonmel asylum, under the superintendence of Dr. Flynn, was a model institution. With respect to the late lunatic, the Inspector-General reported that he was quite cured, and that although he had a mark upon his arm, his skin being remarkably tender, yet he was now in perfect health. He really must protest against this case being brought before Parliament in such a manner as tended to throw discredit upon some of the best managed institutions in the country.

On Tuesday morning, July 19, in the House of Commons, upon the motion for going into committee on the Soldiers and Sailors Contagious Diseases Bill,

Mr. Ayrton said that he regarded the object of the bill as ministering to the vices, not only of the soldiers and sailors, but also of the inhabitants of the towns to which it was pro-

posed to apply the act. It reflected the utmost discredit on the administration of the army and the navy that they should be compelled to come to the House with such a measure. He believed the establishment of Hospitals in the places mentioned would only serve as attractions to women out of the district, provided the treatment they received was humane and agreeable. He thought the bill ought under no circumstances to be proceeded with during the present Session.

Sir M. Peto thought the House ought to be greatly indebted to the Government for their exertions in reference to the subject. He fully believed that no measure before the House for some years was of so much importance. Its working would, he believed, be very beneficial, for instead of pandering to vice, the Hospital came to these poor creatures as a handmaid of mercy, and by the instrumentality of religion sought to induce them to abandon their vicious and immoral course of life. He regarded the bill as being by no means too stringent. It was so framed that if its working were found successful it could be extended, and if it failed the House could retrace its steps.

The bill then passed through committee, a clause, upon the motion of Lord C. Paget, being added for the purpose of preventing the act from coming into operation until the proper certified Hospitals had been provided.

Mr. Hennessy wished to know whether it was intended to appoint a Royal Commission to inquire into the treatment of the disease.

Colonel North was glad that his hon. and learned friend had asked the question, because the subject was one which did not simply concern the army and navy, but which was of importance to all the country. It would no doubt be advisable to introduce some such system as that at present in force on the Continent.

Lord C. Paget said it was the intention of the Government to institute an inquiry into the subject.

It is a matter of congratulation that this bill has arrived at its present stage, and has not been strangled by well-meaning but mistaken moralists. Lord Paget's promise that the Government intend instituting an inquiry into the subject of the treatment of venereal disease promises an important epoch in syphilography.

The House then went into committee upon the India Medical Service Bill.

Mr. Hennessy desired an explanation of the Bill. He understood that it did away with competitive examinations.

Sir C. Wood said that the competitive system had entirely failed.

Clause 1 was passed.

On the consideration of Clause 2,

Mr. Hennessy thought that a certain number of appointments should be given as the result of competitive examinations. He did not wish to oppose the Bill in a factious spirit, but he should feel himself compelled to oppose it unless the right hon. baronet would consent to give some assurance that the competitive system should not be entirely abandoned.

Sir C. Wood had no wish to abolish the competitive examinations, but he desired to extend to the Medical service in India the same advantages as those enjoyed by the Queen's service, and the proposal of the Bill was that any Assistant-Surgeon in the Queen's army—all of whom had obtained their appointments by competition—might, if he so pleased, volunteer into the Indian army.

Colonel North said that the deficiency of Medical officers in our own army was so great that Acting Assistant-Surgeons had lately been introduced,—a class of Medical officers never before heard of.

Mr. Longfield thought that the competitive system could only have failed from the standard of examination being too high or the pay too low, and the bill did not do anything to effect improvements in either of these directions.

Sir C. Wood said that the position of the officers had been bettered both as to rank and pay.

Colonel Sykes complained that many of the natives of India who were in every respect well qualified for the posts were prevented from entering the service from the prejudice which existed against the colour of their skins.

Mr. Hennessy regarded the bill as substituting the old system of patronage for the competitive examination which had been found to work so admirably, and he therefore moved that the House report progress.

Colonel Dickson did not see how the difficulty in filling up the vacancies in the Queen's Army would be remedied by allowing officers to volunteer into the Indian service.

Sir C. Wood would consent to insert a proviso in the bill, enacting that all the regulations referring to the appointment of Medical officers should be submitted to Parliament.

Mr. Longfield regarded the concession proposed by the right hon. baronet as a very fair one, and he should not, therefore, oppose the further progress of the bill.

Mr. Collins thought that no action should be taken upon the regulations until they had been before the House one month.

Sir C. Wood could not agree to the proposition of the hon. member. The regulations should be submitted to the House after they had come into operation.

The House then divided upon the motion for reporting progress, and the numbers were,—

For the motion.	6
Against it	43
Majority against the motion . .	—37

The House then proceeded with the Bill.

Sir C. Wood proposed to submit the regulations to Parliament within 14 days after they were made, provided Parliament were sitting, and if not, within 14 days after the next meeting of Parliament.

Mr. Hennessy moved as an amendment the insertion of words suspending the operation of the regulations until they had been a fortnight before the House.

Mr. Whalley complained of the want of publicity which was attached to some of the orders and regulations connected with the service.

The House divided upon the question that Sir Charles Wood's motion should be put, and the numbers were :—

Ayes	24
Noes	7
Majority in favour of the motion ..	—17

Mr. Hennessy complained that the majority of those who had heard the discussion had voted with him. The Bill was passed at 1 o'clock that morning and was now hurried through committee. It proposed entirely to abolish competitive examination, and, knowing how many of his young countrymen obtained the appointments under the present system, he believed he was only doing his duty in resisting it to the utmost.

The House divided upon the question that the words proposed by Sir Charles Wood should be added to the clause, and the numbers were :—

Ayes	30
Noes	6
Majority in favour of the motion ..	—24

Mr. Hennessy again opposed the Bill, and it being 10 minutes to 4 o'clock the House resumed.

At the evening sitting, the debate on this bill was adjourned until Thursday. It will be thus seen that in an almost empty House the Government have been endeavouring to hurry through a bill abolishing competitive examinations for Indian Assistant-Surgeoncies, and recurring to the old system of patronage. Was such a pitiable and culpable exposure ever made before? At present we do not know the fate of the bill, but it seems to us the last indignity that the authorities can offer to the Profession and the Department. If the bill be successful of course the next thing will be to introduce a similar measure for the British Army. The appointment of Acting Assistant-Surgeons without examination is already a considerable step in that direction.

FROM ABROAD.—DEAF-DUMBNESS AND BLINDNESS IN BAVARIA —TRANSPORT OF THE WOUNDED—PARIS SOCIÉTÉ D'ANTHROPOLOGIE.

In a recent number of *Henke's Zeitschriff*, Dr. Majer has an interesting paper on the statistics of the blind and deaf and dumb of the kingdom of Bavaria. From an examination of these, he concludes :—1. These conditions are found to prevail in very similar proportions—viz., 616 deaf and dumb and 599 blind per million of inhabitants. Both have somewhat diminished in recent times. The blind are found in a larger proportion in the town districts and the deaf and dumb in the rural districts. 2. The male sex predominates both among the deaf and dumb and the blind, but especially in the former. 3. Illegitimate children, apparently from the greater neglect they are subjected to at an early period of their lives,

become afterwards more frequently the subjects of blindness than do legitimate children. This cannot be statistically proved as regards deaf-dumbness, which is generally congenital. 4. More than three-fourths of all the deaf-dumb, but only one-fourth of all the blind are under 40 years of age; while scarcely one-twentieth of the deaf-dumb, but almost one-half of all the blind are above 60. 5. Deaf-dumbness is most frequent among the Jews, less so among the Protestants, and still less so among the Catholics; intermarriages, too, not being so frequent among these last. Blindness is also most frequent among the Jews, and it is also more frequent among the Catholics than the Protestants. 6. The mode of employment of the parents exercises great influence upon the deaf-dumbness and blindness of the children. The trading classes produce almost double the number of deaf and blind than the agricultural class; while the educated class and the military have fewest deaf and blind children, especially the former. In all classes the numbers have undergone a diminution of late years. 7. The parents of two-thirds of the deaf and dumb and three-fourths of the blind were in poor circumstances. The numbers so afflicted amongst the children of the rich have of late years much diminished, while amongst the poor they have increased. 8. The mental condition is good in five-sixths of the blind and in two-thirds of the deaf-dumb. In both the mental condition and educatibility have improved of recent years. 9. With respect to mental capability and the results which may flow from instruction, the blind exhibit a marked superiority to the deaf-dumb; but the contrary prevails with respect to the various modes of occupation. Almost four-fifths of the deaf-dumb, but only two-fifths of the blind are engaged in occupations—a much larger circle of employments being open to the former. 10. Of the whole number of deaf-dumb, as many as four-fifths date their malady from birth, while this is the case only in one-tenth of the blind. In one-sixth of the blind and deaf-dumb, the malady commenced before the end of the fifth year. After this period immunity from deaf-dumbness nearly prevails, while the greatest number of blind are observed in old age. Still the number of those who become blind since 50 has diminished of late years. Congenital blindness and deafness have also both diminished; while the numbers who are affected first during the first five years of life have increased. 11. Hereditariness and intermarriages exert a far greater influence in the production of deaf-dumbness than of blindness. 12. Attempts at treatment are much oftener put into force in the case of the blind than the deaf-dumb, and this increasingly so in recent times.

One would have thought that among so ingenious a people as the Americans, who have furnished us with endless contrivances for facilitating every possible procedure, some means for the more convenient transport of the wounded would, ere this, have been devised. This seems, however, not to be the case, and vast numbers of the victims of their insensate battles perish in consequence of the defective manner in which they are transported. Plaister of Paris is, it seems, only seldom resorted to for the purpose of steadying a fractured limb; but some recent experiments made with it seem to show that it may be eminently useful. Its porosity may be increased, so that very light and porous splint casts may, according to a writer in the *American Medical Times*, be prepared with gypsum 75, water 100, and starch $1\frac{1}{2}$ to 2 parts by weight. The starch is to be boiled "clear" in a small quantity of water, and if the setting of the plaster is too slow, a little salt may be added. After all is prepared, the application can be made in ten minutes. A corrrespondent writing from Fredericksburg to the above journal gives a sad account of the accommodation provided for the wounded, and the consequent ravages of pyæmia, erysipelas, and tetanus. He is convinced that in the then fine condition of the weather it would have been far better for the severely wounded to have been left exposed to the open air on the adjacent hills instead of being agglomerated in filthy, deserted old buildings. "It was a frequent remark that the wounds of those who had lain two or three days on the field were in a perfectly healthy condition."

The Paris *Société d'Anthropologie* has just had a great honour conferred upon it by being decreed an "institution of public utility"—a privilege very similar to that with us of conferring a royal charter, and which enables it to receive legacies and invest monies in its own name. This acknowledgment is usually only the result of laborious undertakings carried over a space of many years, a body so well known as the *Société de Chirurgie* having existed for sixteen years before acquiring it. The *Société d'Anthropologie* is only five years old; but the vigorous impulse imparted to it by M. Broca, its secretary, the great importance of the subjects embraced by it and of the publications it has issued, and the influence of the *savans* of note who have laboured in its ranks, have hastened on its maturity. Most of all, perhaps, does this learned body owe its recognition to the fact of having a friend at Court; for M. Duruy, the present enlightened Minister of Public Instruction, is himself a writer on ethnological subjects, and warmly appreciates the aims and influence of the Society.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF BIRMINGHAM.

THE GENERAL HOSPITAL.—*Continued.*

THE SANITARY CONDITION OF THE HOSPITAL.

The Wards.

The wards of the General Hospital are twenty in number. They are divided into Medical and Surgical, with a department for cases of burns, and also a department for the reception of patients suffering from diseases of a contagious character. These two last-named departments are very defective, and the committee deputed to report on the Hospital recommend specially the improvement of them. The wards altogether are remarkable for the differences they present in point of size. The largest ward, number 13, contains thirty-one beds, number 12 contains twenty-seven beds, number 4 contains eighteen, and the new ward, number 20, twenty; the rest vary, in respect to the number of beds, from fifteen to four.

The cubic space is equally variable—a point of much more importance than the mere number of wards or beds, and a point on which there ought not to exist any kind of error or misunderstanding. Turning to a table that lies before me, I find the cubic space allowed per patient to vary from 1297 cubic feet in the "New Ward," number 20, which receives sixteen patients, to 558 cubic feet in ward number 19, which receives only five patients. This is the reported fact, officially rendered on October 1, 1863, and I call attention to it, first, because it must come before us again; and, secondly, because it shows a peculiarity of arrangement which the scientific reader would hardly accept unless it were properly accredited. The average number of cubic feet per bed is given as 995. Presuming that each bed has that space, it is far too confined. The committee of inquiry, to which I have before referred, report on this point as follows:—

"The accommodation is very defective in several important departments. 1. *In the number of cubic feet of air afforded to the patients.* They are, for the most part, too crowded. This brings on unfavourable action in many severe Surgical cases; and has a general tendency in all cases to retard recovery, not to speak of Hospital gangrene, pyæmia, and other evils. The increase of cubic space for every bed should be the chief point aimed at in any enlargement of or addition to the Hospital. Your committee desire to express the opinion (in accordance with that of the best Medical authorities), that a minimum of 1200 cubic feet of air be allowed to each patient; and they strongly recommend that regulations should be made to prevent the admission of such a number of patients to any ward as would reduce the cubic space below this minimum. Your committee are also of opinion that any addition to, or alteration of, the present building should be made ex-

clusively to give increased space to the present number of beds, and that no provision be made for additional in-patients. 2. *The Contagious Department* requires improvement. 3. The accommodation for *burns* is very defective. 4. The accommodation for *nurses and other servants* is deplorably bad, and it is so prejudicial to health as to frequently interfere with the discharge of their duties. It acts, in some cases, as a deterrent to persons of a respectable class, when offered an engagement in your Hospital. 5. A new *operating theatre* is essential, both in humanity to the patients and for the accommodation of the pupils. 7. The *ventilation* needs improvement. 8. Under the recommendation of your committee, a *residence for a house governor* should be provided without delay, in order that the general superintendence of a supreme head, so essential to good government and economical administration, may be at once secured."

The accessories to the wards, the water-closets and lavatories, are badly placed: they open into the wards directly, and, as the closets are not of modern construction, the mischiefs likely to arise from them will at once occur to the mind of the sanitarian. Nothing, in truth, can be worse in a Hospital than for a water-closet—used, as it is, many times in the day—to open into the room where the sick are lying; all the care in the world, all the cleanliness, the most perfect flushing, cannot prevent contamination of the air with organic matter from so fruitful a source of contamination.

There are *baths* for nearly every ward; these are placed in rooms also immediately off the ward, and near the closets. The baths are of the ordinary Hospital construction, and in some cases the usual bath is supplemented by a shower-bath. There is no hot air-bath in the institution—a want much to be regretted.

The bedsteads are out of character in most of the wards. Those at the upper part of the building are positively four-posters, made of *wood*, and are packed together so much like biffins that absolutely they touch each other on one side, and leave but bare room for the nurse or the Doctor to pass on the opposite side. I have seen some curious things in Hospitals before, but the ingenuity of perversion in this spectacle startled me, from its novelty. It is not a condition, surely, that can last; neither can one expect that the centre of iron-work for the kingdom will allow for many years to come wooden bedsteads to stand up for bedsteads of iron. In the centre of the Potteries we found the patients of an Infirmary eating their food off tin platters, and drinking their drink out of tin cups. In the Potteries we must infer, therefore, there is a scarcity of earthenware, and in Birmingham we must infer there is a scarcity of iron. The senses were made to cheat us, otherwise.

The floors are cleaned by the process of dry rubbing and ordinary polish. They are rather slippery, but the advantages of the dry process have become acknowledged, and the inconveniences that occur are not considered of importance.

Ventilation and warming.—Various attempts have been made to ventilate this Hospital, and some years since not less than £6000 sterling was, I believe, expended on the most approved principles in one effort. Naturally, the effort failed, and for the simple reason that the Hospital was not built to be ventilated. On the mode in which the wards are arranged with their windows, as a rule, not opening from side to side, and with one wing shielding another, and each wing backing out its fellow in the feat of opposing the entrance of air by every channel, not all the money, not all the skill, in the world could ventilate this building. Ventilation means but one act—perfect freedom to the entrance and exit of air in all directions. As you traverse the wards of the General Hospital, and cast your eyes to a ceiling that has not recently been washed, you see stripes or fan-like marks of carbon that has been deposited from gas smoke or furnace smoke rising from below. The direction of these lines on the ceiling is a register of the course which the admitted air has taken for some months before—since the time, in fact, when the ceiling was last washed. But I could not see anywhere that these stripes of black ever pointed towards an exit for the escape of air. They either pointed into the corners of the ward or towards a blank wall. But where they pointed and were most marked, there also had organic matters, passing from the bodies of the patients, mainly ascended, when, with full burning fires and gas, the ward was most thoroughly heated. And from these corners and secluded places, when the rooms cooled down in the midnight and early day, those organic poisons had descended, to enter the breathing organs of the patient, and do their mischief as they only can, without proclamation.

Shafts opening at the upper and lower parts of the wards have been introduced, but it is complained that they act indifferently. They must do so, because the balance of draught is determined by the temperature of the department altogether. Sometimes, from the presence of a low fire and from the warmth of the bodies of the sick, the temperature of the air in the lower part of the room is the highest, then the current from the *upper* opening is inwards; sometimes when gas is lighted, and the fires are brisk, the temperature of the air is highest at the upper part, then the current of air from the *lower* opening is inwards; at other times, when the temperature is equal throughout, there is no current at all inwards, but equilibrium and stagnation of air.

In certain of the wards there is grating on the floor, through which hot air is allowed to pass from the basement—a contrivance in a house for the sick for which no expression of dissent is strong enough. Nothing but absolute and chaotic ignorance saves such an act from becoming an offence against humanity. Imagine a patient with a bedsore or sloughing wound or pustular skin lying in his bed near to a current of warm air. The air is not heated enough to destroy the organic matters, but is just sufficiently heated to diffuse them rapidly and evenly though the whole of the space enclosed by the four walls, and then not to escape—except by accident—but chiefly to accumulate in those parts where, because there is no draught, the air remains the more steadily and uniformly raised. I dwell no longer on this practical error; it is obvious to all who venture to think, and it surely cannot long be sustained. In the absence of anything better, wire gauze has of late been inserted in the upper opening of the windows, and for a temporary purpose this proceeding is better than none, but it is, after all, the bare act of repairing tattered garments.

Owing to the bad ventilation, the air of the wards is faint, ammoniacal, and, in some places, offensive. In one of the upper wards I found it more than tainted; and around a Surgical case in a lower ward there was a putrescent odour, arising from a wounded limb which two of the dressers were gently tending, that could not be lost in the air for many hours. The unhealthy wound, the saturated bandages just removed, the ammoniacal emanations, were treated as matters of course and of necessity. And truly there was nothing peculiar in them as belonging to the General Hospital at Birmingham: the same may be experienced daily elsewhere; but, like slavery, though thousands be made to taste the experience, yet is it none the better on that account. To sum up, the General Hospital is not ventilated, and, as it now stands, it never will be ventilated. *The warming*, as we have seen, is carried out, to a certain extent, by means of heated air; but there are in addition open fire grates where they are required.

Everything possible is done to admit sufficiency of *sunlight* into the wards; but the construction of the house is against the attempt. The Hospital was not built for the admission of sunlight any more than of air. The result is, that many of the wards are dull, sombre, lifeless, and cold.

The walls of the wards are free from all attempts at *decorative* art that can be called art. I saw neither flower nor picture—no, nor so much as one point of relief to the eye. A sad omission in the management of the sick, to give them nothing on which to rest a thought, or that shall suggest a thought apart from themselves, their sorrows and their sufferings. When from the mind of the patient painful thoughts are sent forth and fall on blank walls, they are reflected back, and re-entering the soul recharge it with griefs that are already too hard to bear. But when these thoughts fall on art, however simple, they are absorbed by it and straightway the dead matter which the artist has clothed with his own life speaks back again, puts questions, gives answers, and with the rudest of the rude holds such sweet converse that the memory of pain is past, and the body rests unconsciously, nourished by the rest, sustained, renewed. It is not fair to blame Birmingham that her Hospital administrators are blind to those curative influences that are separate and distinct from the Surgeon's knife and the Physician's recipe. But it is honest to tell her that her administrators are not advanced on these subjects, and that there is a great future before them if they will learn and lead the way to advancement.

The water supply is not what it might be. In the year 1862 the Committee of Management made inquiries whether an ample supply of pure water could be not obtained at a moderate cost. The supply was derived from the Waterworks Company, and the purity of it apparently was not considered as unquestionable. It was proposed to obviate this difficulty by sinking a deep well on the premises; but the expense

stood in the way. The *drainage* of the Hospital is moderately good, but admits of improvement.

The Nursing System.

The nursing of the patients is conducted on the old system. There is one nurse to every ward, with night nurses and assistants. The rooms of the nurses do not command the wards, and the accommodation is altogether most deficient.

The Diet.

The diet is very liberal, as will be seen from the subjoined regulations. The only objection is that the weighing system is carried out. The extras referred to in the table are ordered under the sole direction of the Medical staff.

Table of Diets.

A loaf of bread, weighing 12 oz., is served to each patient daily.

Breakfast.—Each patient 1 pint milk.

Dinner.—Full diet, for men 6 oz., for women 4 oz., of meat, in the following order:—Roast beef on Sunday, Tuesday, Thursday, and Saturday; roast mutton on Monday, Wednesday, and Friday, with 8 oz. of potatoes or other vegetables.

House diet, for men 4 oz., for women, 3 oz., of roast meat, as in full diet, with 1 oz. of potatoes or other vegetables.

Mutton diet, for men 4 oz., for women 3 oz., of mutton, either roast or boiled, or as a chop, with 8 oz. of potatoes or other vegetables.

Low diet, for men and women, consists of 8 oz. of pudding—rice on Sunday, Wednesday, and Friday; sago on Monday and Thursday; Oswego on Tuesday and Saturday. One pint of broth, thickened with rice, oatmeal, or pearl barley, for lunch.

Supper.—Each patient 1 pint of gruel or broth.

Extra.—Light pudding, chicken, fish, eggs, milk, arrowroot, beef-tea, beer, ale, porter, wines, spirits, tea, and coffee.

Use of Alcoholics.

The quantity of alcohol consumed in the General Hospital has very largely increased of late. Last year 582 bushels of malt were brewed into beer, and 260 dozens of wine, with 168 gallons of spirits, were bought. The quantity of beer taken per day by each patient, on the average would, I think, be represented by a pint at least, the wine by three-quarters of an ounce, and the spirit by nearly an ounce. In August last year the able Secretary of the General Hospital, Mr. Hughes, drew up the subjoined very valuable table, in which he points out that the average cost of wine, beer, and spirits for a year is £685, and that in matter of cost for these items the General Hospital is the highest on the list of Hospitals, with the exception of the London and St. George's.

A Statistical Comparison of Several Important Metropolitan and Provincial Hospitals, compiled from the last published Annual Reports of those Societies, by the Secretary of the Birmingham General Hospital.

Name of Hospital.	Averages.				In- and Out-patients admitted.							Income.						Expenditure.				
	Average Number of Beds occupied during the year.	Average Time in days which In-patients remained in the House.	Average Number of Household.	Average Cost per Bed, occupied, per annum, inclusive of all expenses.	Number of In-patients admitted in the Year by Tickets.	Number of In-patients admitted as Accidents, etc.	Total of the In-patients.	Number of Out-patients admitted in the Year by Tickets.	Number of Out-patients admitted Accidents, etc.	Total of the Out-patients.	General Total of In- and Out-patients.	Annual Subscriptions.	Invested Property and Ground Rents.	Donations.	Legacies.	Other Sources of Ordinary Income.	Total of Ordinary Income.	Provisions for Patients and House.	Drugs, Instruments, and Instrumental Supports.	Wines, Spirits, Ale, and Beer.	Other Branches of Ordinary Expenditure.	Total of Ordinary Expenditure.
				£								£	£	£	£	£	£	£	£	£	£	£
The London	325	29	108	57	1253	2916	4169	13283	14628	27911	32080	953	13288	1752	8948	374	25315	7286*a*	1522	8366*b*	8910	18554
St. George's	322	26	66	48	2628	1018	3646	2336	8434	10770	14850*c*	4565	4403	992	748	127	10835	4651	1597	1029	8139	15416
St. Mary's	141	30	46	51	745	946	1691	8521	6588	15419	17110*d*	3966	34	2951	382	378	7711	2393	713	516	3630	7252
Westminster	134	32	41	42	520	920	1440	4918	11162	16080	17520	1203	858	1035	2145	462	5703	1832	627	419	2712	5590
King's College	125	33	44*e*	61	*f*	*f*	*f*	*f*	*f*	*f*	39523	1436	191	3361	910	664	6562	1694	1027	648	4206	7575
Royal Free	79	28	17	51	1015*g*	175	*f*	*f*	*f*	50496	51686	1628	*Nil.*	1555	5419	250	8852	*f*	*f*	*f*	*f*	4022
Birmingham General	206	29	53	44	1417	1195	2612	11674	14228	25902	28514	4607	1621	629	375	3244*h*	10476	2759	2002*i*	685	3640	9086
Bristol	206	29	70	41	*f*	*f*	2816	10917	4426	15343	18159	2926	1861	3057	795	5253	13892	2740	1119	483	4019	8361
Manchester*j*	195	31	85	59	950	709	1659	22525	4470	26995	28654	6378	4065	1230	4304	748	16725	4001	1910	545	5012	11468
Devon and Exeter*k*	185	47	*f*	32	941	471	1412	875	383	1258	2670	1279	3031	262	9731	409	14712	2309	767	546	2195	5817
Leeds	152	35	33	37	971	739	1710	2759	822	3581	5291	2733	283	222	1721	186	5145	2612	1061	466	1522	5661
Brighton	123	35	50	51	726	525	1251	*f*	*f*	5166	6417	2371	737	599	902	1401	6010	2196	848	372	2816	6232

a Inclusive of beer, etc. *b* Exclusive of beer, etc. *c* Includes 448 maternity cases. *d* Includes 310 maternity cases.
e Exclusive of men-servants and probationers—*i.e.*, nurses on trial. *f* No return furnished. *g* "Destitute persons" admitted free.
h Inclusive of £3043 from the triennial musical festival. *i* Inclusive of £230 paid for instrumental supports, which are not generally supplied at Hospitals. N.B.—Cod-liver oil, quinine, and other expensive drugs are given to out-patients.
j A Dispensary is attached to this Hospital. *k* No out-patients are admitted, except as accidents.

The increased expenditure for beer, wines, and spirits in the General Hospital has naturally called forth much comment, and the Committee of Inquiry has felt it neccssary to consider the subject in its report. The decision to which the members of the Committee have come is thus expressed:—

"The control of the *alcoholic fluids*, whether for Hospital or house purposes, is obviously a point of domestic management which should be carefully provided for. Your committee are aware that the great increase in their consumption has for some years been a subject of remark among some of the best friends of the charity, and that it has very frequently been a subject of inquiry with the House Committee and at the Weekly Board. It would have been both irrelevant and presumptuous had your committee attempted to decide what is still a moot question among the most eminent of the faculty—whether, of late years, disease has assumed a type requiring a more stimulating treatment, or whether the faculty have been led, in the progress of Medical Science or in the pursuance of Medical experiment, to adopt such a treatment. The question bears not on alcoholic drinks only, but on the general dietary of the Hospital. Your committee have had to deal with the fact of a greatly and progressively-increasing expenditure, which has largely raised the average cost of patients. No doubt a very liberal system has been pursued, both in diet and medicine, in your Hospital; but, from trustworthy evidence, your committee believe that, in this increase of cost, your Hospital is by no means singular. Upon the general question, it is clear that no interference with the prescriptions of the Medical officers can be thought of. And, while your committee feel that the most rigid economy is a duty in the administration of such a charity, they believe that the governors would unanimously repudiate such a misapplied economy as would deprive the patients of any article or of any measure either of good diet or good medicine which is essential, in the judgment of your Medical officers, for their treatment."

Convalescent Institutions.

As supplementary to the Hospital, the authorities have now established two Convalescent Institutions. One of these is situated at Rhyl, the other at New Brighton. The institution at Rhyl is for male patients, that at New Brighton for female. These retreats greatly relieve the pressure on the General Hospital, and are found of much service to the patients.

Last year another convalescent establishment connected with the Hospital was opened. This has been brought about by the benevolence of a lady—Miss Ryland, of Barford-hill, Warwick. In June, 1862, Miss Ryland offered to the governors of the General Hospital for two years, as an experiment, and on certain conditions, the use of a large house at Spring-hill, in the parish of Yardley, with a large kitchen garden attached to it, to be occupied as a Convalescent Institution for patients from the Birmingham General Hospital, such patients being Birmingham artisans or labourers and not domestic servants. Miss Ryland further offered to enlarge and thoroughly repair the building at her own expense, so as to fit it for the reception of twenty patients, and to contribute for two years the annual subscription of two hundred and fifty pounds, to enable the experiment to be fully and fairly tried.

This most considerate and truly munificent offer was accepted by the Board. The building has since been completed, and has been in steady and useful operation. The thanks of the authorities of the General Hospital have been warmly and often expressed to Miss Ryland for this real work of charity, and I am sure I shall but re-echo the voice of the Medical Profession everywhere in thanking her, too, for having set so great an example to the benevolent of other towns where crowded Hospitals call for relief, and the convalescent poor long for those last elements of treatment during recovery—fresh air, freedom, and quiet—elements which nothing but a home removed from the city or town can afford.

Retrospective.

Before leaving the General Hospital of Birmingham, one or two suggestions occur to me, which I would offer with the greatest possible respect, with a sincere desire for the continued success of the Institution, and with the consciousness that they are based, however simple they may be, on a large experience as to the sanitary requirements of Hospitals.

The first and leading suggestion is—it has been already expressed by Dr. Heslop—that every pound spent on enlarging or "improving" the present Hospital so as to ensure its continuance is a pound worse than lost, for not only would it be useless as a spending, but it would subject those who spent it to the necessary and just criticism that in what they did they were guided by a false economy and a want of appreciation of the actual reform that is really called for. The only remedy for the General Hospital is to pull it down and rebuild it. Anything short of this is so weak that it is indefensible, and the subscribers to a fund intended to patch up or add to the building as it is, are doing an act of generous mis-application. The Hospital is one of sixteen or seventeen others in different parts of the country, built about the middle of the second half of last century on what may be called an experimental plan drawn out at a time when the great laws respecting physiology, the spread and communication of disease, and the best methods of ventilation were in their infancy and were scarcely appreciated. The foundation or design of these Hospitals is consequently all false when compared with the knowledge of what is required, and which we at this present possess. The wards are built in such way that they cannot be lighted and ventilated from every point of the compass; the windows are too small; the doors and furnaces are incorrectly placed in relation to each other; the staircases communicate with the basement; the wards communicate; the sizes of the wards differ; the accommodation of the nurses and officers is forgotten; the waterclosets and lavatories open into the wards, and the ceilings of all the apartments are too low. The greater number of these radical faults are present in the General Hospital, its glaring faults being the irregularity of the cubic space allotted to the patients, the entire inadequacy of the ventilation, and the intercommunication of the wards. It is a fact beyond disproof, that whenever a house or Hospital becomes the home either of erysipelas, pyæmia, or Hospital gangrene, such house or Hospital is unfit for the reception of the sick: it is a fact that when the poisons of these diseases are once introduced into a house or Hospital, they remain there unseen, unknown, and ready, if liberated, to spread desolation: it is a fact that in Hospitals badly ventilated, and especially in Hospitals where each patient has not sufficient cubic space, these diseases will appear, will spread, and will kill; and it is equally the fact that there is no necessity whatever for the spread of these disorders, and, *perhaps*, none for their origin if we knew more concerning them.

Thus, the presence of the disorders named is a sure and certain indication of defective and, in most cases, incurable or irremediable construction of the Hospital; and in the case of the General Hospital, their steady presence, and the mortality they bring, despite every care, tells the existence of a primitive and basic fault, for which there is but one correction.

I say nothing on the question of site for a new Hospital, because on this subject I have no sufficient data to guide me; but in reference to reconstruction there can be no doubt. Each year that rolls by renders the present Hospital more unworthy in the eyes of the man of science, and each addition heaps mistake upon mistake. If, then, the people of Birmingham at this crisis wish to have an Hospital of which they may be proud; if the Medical staff wish to have an Hospital where they would see their good deeds consecrated in the saving of life to the largest possible extent, they will unitedly think no more of the old building, grieve not a moment at its removal, but will erect, as is now being erected at Leeds, a pavilion Hospital in separate blocks, with each ward distinct, and opening only into the air; with light and air admissible on every side; with 1800 or 2000 cubic feet of space for every bed; with lavatories and water-closets separated from the wards; with lifts for cases of accident; with shafts for the immediate removal of dressings, from the patients, to the basement of the building; with a copious and good water supply; with airing grounds at the top of each block for convalescents or for extreme cases of malignant disorder; with a Turkish bath, vapour baths, and large water baths; and with fitting conveniences and accommodation for the Medical residents, secretary, nurses, and other officials.

One suggestion more. Should the Governors rebuild, let them remember, of all things, that it is not necessary for them to build massively. In this advancing time an Hospital erected to stand even for a hundred years is, if anything, too solid, since it is almost certain before a hundred years shall have passed away improvements in construction will have advanced so far that the building of to-day, framed, though it may be, on the most improved principles, will be out of date and character.

THE QUEEN'S HOSPITAL.

The Queen's Hospital at Birmingham was originated at the instance of one of the Medical Practitioners of that town; and was not only originated, but mainly carried out through his exertions. Need I say that this gentleman was Mr. Sands Cox. The idea of founding an institution was first publicly broached in a letter written by Mr. Cox to the Rev. James Thomas Law, on November 11, 1839. The suggestion attracted the notice of the Rev. Dr. Samuel William Warneford, who contributed at once a donation of £1000. In 1840 the proposal of the Hospital was brought formally before the Board of Lecturers of the Royal School of Medicine and Surgery of Birmingham. A resolution was then passed to the effect that the formation of the Hospital was desirable, and steps were immediately taken to secure a site and commence the building. An eligible position was soon procured in the extreme western district of the town, and the building commenced, the foundation-stone being laid on June 18, 1840, by Earl Howe. Soon after the foundation Her Majesty the Queen intimated her willingness to become a patron, and to allow the Hospital to be called the Queen's Hospital of Birmingham. The Prince Consort also accepted the office of President. The late Queen Adelaide likewise became a benefactor.

The building was designed by Messrs. Bateman and Drury. It was formed in two wings, called the Victoria and Adelaide, and it was constructed for holding 150 beds. Patients began to be received on October 24, 1841, and the Hospital has since continued in active operation as one of the principal charitable institutions of Birmingham.

Administration.

The position of the Hospital is unquestionably good. It stands on rising ground, is built on the red sandstone formation, and the design, although not what would be adopted now, is a decided improvement on the older and orthodox class of Hospitals. The work of the Hospital is divided into six departments, viz., departments for in-patients, out-patients, midwifery cases, children, fever cases, and tooth cases.

Number of Patients Treated.

The number of patients admitted into the Hospital from July 1, 1862, to December 31, 1863, was 1934. There remained in the Hospital in July, 1862, 98 cases, and patients with renewed notes were admitted to the number of 102. The total of admissions is therefore taken at 2134; but the renewed notes being excluded, the number actually admitted

during the eighteen months named was, in fact, 2032. Statistics of out-patients are not supplied.

Rules for the Admission of Patients.

All benefactors of the Hospital to the value of twenty pounds and upwards are Life Governors, and if any benefactor is by will the testator, he may nominate a Life Governor; all annual subscribers of two guineas and upwards are Governors during payment.

Clubs are allowed to subscribe, and all benefactions and subscriptions proceeding from the collective efforts of clubs or other institutions established for mutual benefit and assistance are made to the Hospital in the name of one or two persons selected and nominated by such clubs and institutions; and these persons have the same privileges as other benefactors and subscribers.

Benefactors, Governors, and Subscribers have the privilege of recommending patients annually according to the following scale:—

For every	£1	1	0	subscribed			10	out-patient tkts.
,,	2	2	0	,,	1	in and	1	,,
,,	3	3	0	,,	1	,,	11	,,
,,	4	4	0	,,	2	,,	2	,,
,,	5	5	0	,,	2	,,	12	,,
,,	6	6	0	,,	3	,,	3	,,
,,	7	7	0	,,	3	,,	13	,,
,,	8	8	0	,,	4	,,	4	,,
,,	10	10	0	,,	5	,,	5	,,

And the same in proportion for all additional sums subscribed.

A donation of £20 at one time entitles the donor to the same privileges as a subscriber of £2 2s. If, however, the Committee is of opinion that any patient recommended is not a proper object of charity, or is afflicted with chronic or incurable disease, his recommendation is rejected.

Clergymen or ministers of religion who permit collections to be made in their churches or chapels for the benefit of the Hospital are entitled during the current year—

For every	£5	subscribed to	1	in- and	10 out-patient tickets.
,,	10	,,	2	,,	20 ,,
,,	15	,,	3	,,	30 ,,
,,	20	,,	4	,,	40 ,,
,,	25	,,	5	,,	50 ,,
,,	30	,,	6	,,	60 ,,
,,	35	,,	7	,,	70 ,,
,,	40	,,	8	,,	80 ,,
,,	45	,,	9	,,	90 ,,
,,	50	,,	10	,,	100 ,,

Income of Hospital and Cost of Patients.

The income of the Hospital at the present time may be considered as amounting to about £5650 annually. For the eighteen months commencing July 1, 1862, and ending December 31, 1863, the income was £8467. The sources of income are annual subscriptions, donations, and benefactions, subscriptions to a benevolent fund, donations from workmen, students' payments, interest from investments, legacies, public performances, and congregational collections. The chief sources are the first and last, the congregational collections being specially valuable. At Christmas last the excess of expenditure over income was nominally £365, and actually £2030. The cost of provisions for the eighteen months to which I have referred was £3092 11s. 1d., being at the rate of £2060 yearly. Domestic expenses for the same time are marked as £397 5s. 9d., and the Surgery and Dispensary at £1891 5s. 1d. The total expenditure for a year would thus be £3593 13s. 10d., or at the rate of £2 9s. per patient per annum. Some deduction from this amount should be made for out-patients, but the sum given may be accepted as nearly correct. I shall refer to this subject again in a future paper should any important error in calculation have been made.

The cost of ale, beer, and porter for the eighteen months was £387 7s. 6d.; the cost of drugs was £1120 13s. 6d.; of Medical appliances, £250 15s. 7d.; of spirits, £85 19s. 1d.; of wines, £126 4s. 3d.; of pharmaceutical sundries, £42 19s. 5d.; and of Surgical instruments, £54 5s. 4d.

The Medical Staff.

The Medical staff consists of—*Physicians*—Willoughby Francis Wade, Esq., B.A., M.B., M.R.C.P.; Alexander Fleming, Esq., M.D., F.R.C.P. *Consulting Surgeons*—G. B. Knowles, Esq.; Langston Parker, Esq.; William Sands Cox, Esq., F.R.S. *Surgeons*—James F. West, Esq., M.R.C.S.; J. Sampson Gamgee, Esq., M.R.C.S.; Ferneaux Jordan, Esq., M.R.C.S. *Assistant Physician*—Dr. Foster. *Assistant Surgeon*—J. St. S. Wilders, Esq., M.R.C.S. *Consulting Surgeon Accoucheur*—Samuel Berry, Esq., F.R.C.S. *Surgeon Accoucheurs*—Cornelius Benson Suckling, M.D., M.R.C.S.; J. Lumley Earle, M.D., M.R.C.S. *Dental Surgeon*—S. A. Parker, Esq., L.D.S., R.C.S. *House Surgeon*—Thomas Thompson, Esq., M.R.C.S. *Junior House Surgeon*—Walter Jones, Esq., L.S.A.

The notice of the Queen's Hospital at Birmingham will be continued in my next report.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

July 12.

I had hoped that the cases of hydrophobia recorded in my last letter would have been all I should have to mention; but I regret to say that since I last wrote there have been two more cases, one of which occurred at Prescot, just on the outskirts of the town, and one in the town itself. It is stated by the *Daily Post* that as many as forty or fifty cases of bites inflicted by dogs have been under treatment at the Southern Hospital alone during the last six months, and that in several of these cases the dogs have been known to be mad. Certainly there has been no lack of vigour on the part of the police in enforcing the regulations as to keeping dogs from being at large, for the "dog cases" at the police-courts have formed a most important branch of its business for several weeks, while the amount of "canicide" perpetrated by the police must have seriously diminished our canine population.

I am glad to be able to report two more successful cases of ovariotomy, both of which were under the care of Dr. Grimsdale at the Lying-in Hospital.

The first patient was 20 years of age; she was thin, but in generally good health. Six years since she suffered from acute rheumatism, but there did not appear to have been any cardiac mischief left by this disease. The tumour was first noticed by herself in June, 1863, and by November it had developed so much that her abdomen had the size of that of a woman about eight months advanced in pregnancy. It appeared to spring from the right ovary; its surface was uniform, and it fluctuated throughout. On January 28, 1864, she was tapped, and twenty-seven pints of fluid removed; and on May 14 thirty-two pints were removed in the same manner. After this there remained a considerable mass, which was evidently constituted partly by solid matter, partly by cysts. It seemed to adhere somewhat to the pelvis by its left side. The operation was performed on June 17. Anteriorly the tumour adhered but slightly to the abdominal wall, excepting at one point to the left of the umbilicus, where the adhesion was very firm. Posteriorly a portion of intestine was connected with the tumour, and bled freely when separated from it. There were some pelvic adhesions on the left of the tumour, as had been anticipated; but these were easily broken through. The pedicle was long, broad, and fleshy; it was secured by means of the clamp, and the wound closed with five deep and two superficial sutures of silk, the deep ones passing through the peritoneum. After the operation she was sick twice within two or three hours, and had some pain, which was relieved by an enema with twenty minims of laudanum. Her after-history may be summed up by saying that she recovered without a bad symptom. Her pulse, at first 84, once rose to 96, never higher. She began to menstruate the day after the operation. The sutures were removed on the 20th, the wound being healed by the first intention, and the clamp was taken off on the 22nd. Her bowels acted on the 24th.

The second case was not quite 20 years of age, very small and childish looking. She had suffered severely from acute rheumatism in February, 1862, and a loud rasping murmur accompanying the second sound was audible at the base of the heart. She had also swelled glands under the jaw. In October, 1862, there was a globular tumour, moving from the left side, uniformly fluctuating. She was tapped on January 27, 1863, to sixteen pints, on October 7th to twenty-two pints, on November 21 to twenty-three pints, and on June 9 to twenty-three pints, the fluid on this occasion being like thick porter, whereas before it had been clear and straw coloured. Her constitutional symptoms gave rise to a good deal of hesitation as to the propriety of the operation, and

very different opinions were expressed about it by persons well able to judge. The patient was most anxious that the operation should be performed, and she underwent it on July 5. There was considerable difficulty in separating the anterior surface of the tumour from the abdominal wall. A portion of omentum also had to be separated from the tumour, and bled so freely that a considerable mass of it was tied and brought with the pedicle through the wound. There was a good deal of oozing also from the parietal peritoneum. There were no pelvic adhesions. The tumour was tapped; about seven or eight pints of fluid were let out, and it was then easily brought through the wound. The peduncle was long and remarkably slender, its thickness not exceeding that of a forefinger. The wound was closed with five deep and two superficial sutures, and the clamp left on the peduncle. The patient did not take the chloroform very well. There was a good deal of cough, with some lividity of the face and frothing at the mouth. Reaction set in but slowly after the operation, and when it did the patient was attacked with very threatening dyspnœa. This was relieved by the free application of Bullen's blistering fluid; but until the evening of the 7th inst. she continued sick, and her pulse kept up to about 120. On the 8th it had sunk to 94; the sutures were removed, the wound was healed. On the 10th the clamp was taken off, and she may now, I hope, be considered as out of danger.

An interesting case of aneurism, probably originating in the innominate artery, is now under the care of Mr. Bickersteth in the Royal Infirmary.

The patient, a sailor, aged 35 years, noticed a swelling in his neck some time in November, 1863. When admitted into the Infirmary the tumour had absorbed the right sterno clavicular articulation and a considerable part of the first piece of the sternum. It rose in the neck nearly to the level of the thyroid cartilage. The patient experienced a good deal of difficulty in swallowing and his breathing was stridulous. It was decided to give him the chance of cure which might be afforded by the ligature of the common carotid and the subclavian arteries. On May 10 the carotid was tied. Some difficulty in the operation was occasioned by the prominence of the tumour, which very much increased the depth from the surface to the vessel. Great improvement was soon manifest in the breathing and swallowing, and in a few days the pulse in the right arm became feeble, and then ceased to be felt. For a time it was hoped that the aneurism was solidifying; but the pulse returned at the wrist, and the beat of the tumour was as distinct as ever. On June 28, the subclavian was tied in the third portion of its course. This was effected with no little trouble; for the clavicle being drawn up by the contraction of the muscles on the affected side, placed the artery at a most inconvenient depth, while the projection of the tumour outwards encroached upon the space in which the vessel had to be sought, and communicated so strong a pulsation to all the structures in its vicinity that it was not easy at first to distinguish it from the arterial pulse. The patient has recovered well from the operation; but the aneurism still beats very strongly. I should mention that before the second operation the patient was repeatedly bled. It is too soon yet to speak as to the result of the case; but I hope that this and the details of its history may be published.

On the 5th inst. Mr. Long removed the left upper jaw of a woman, aged 19, on account of a fibrous tumour implicating the bone. The only external incision was one through the upper lip a little to the left of the middle line, which was carried up into the nostril, and the whole jaw was thus removed. A very decided disfigurement is avoided by the omission of the incision through the cheek from the angle of the mouth. In this instance, three days after the operation, the only visible trace of it consisted in a slender line of cicatrix firmly uniting the lip where it had been divided. The outline of the face is, as yet, not in the least disfigured. The patient eats well, and has by no means the look of a person who has recently undergone so serious an operation.

ACADEMY OF SCIENCES.—The Academy has just elected M. De la Rive, of Geneva, to the honoured post of one of its eight foreign associates. As usual in its elections, it had a galaxy of talent to choose from, so that who to prefer must have been a matter of some consideration. The other candidates were Agassiz, Cambridge, U.S.; Airy, Greenwich; Bunsen, Heidelberg; Forbes, St. Andrews; Graham, London; Hamilton, Dublin; Martius, Munich; Matteuci, Turin; Murchison, London; Struve, Pultowa; and Wheatstone, London.

GENERAL CORRESPONDENCE.

THE COLLEGE OF PHYSICIANS AND THE APOTHECARIES.

[To the Editor of the Medical Times and Gazette.]

SIR,—Do you not think it would be desirable to get up a subscription for the Royal College of Physicians? It is really sad to see the Institution of Harvey, Radcliffe, and Mead dragged through the mud as it has been of late years. It seems to me that it would be a far more respectable way of putting the College in a decent position as regards funds if the Profession were to subscribe a sum to be invested for its benefit than to encourage it in offering to sell Licences to practise at one or two guineas a head, which, I believe, is the proposition now on the *tapis*. Just look for a moment at the *facilis descensus* down which the College has been tumbling during the past few years. It is well known that at the time of the passing of the Medical Act the College was at the lowest ebb of impecuniosity. I have heard that it only managed to pay its beadle and the people who swept out its apartments by borrowing money from one or two of the Fellows. The causes which led to this state of things were patent enough. It demanded an enormous fee from its Licentiates, gave them no privileges in the College, and elected its Fellows on the narrowest grounds of favouritism. A friend of mine heard one of the Consilarii once say, "What was the good of being in office if they could not make their own friends Fellows?" Then came the Medical Act, which declared the Licence of no legal value to holders of Medical degrees. What was the College now to do? Ruin stared it in the face. It looked about on all sides for help, and none forthcoming, it adopted the expedient of its sister in the North—an expedient, by the bye, which it had just before publicly denounced Like the unjust steward, it made to itself friends of the mammon of unrighteousness, and began to sell Licences to Doctors of Medicine of all British Universities—no matter of what shade or complexion—Oxford, Cambridge, London, Edinburgh, Dublin, Aberdeen, Glasgow, and even the transmogrified Apothecary, who had rushed up to St. Andrews on spec., and got dubbed, after grinding at Powers' notes for a week. All were welcome. First at £25 a-head, and then, when the supply began to fail, at £10, the College having got the Government, in a moment of weakness, to take off the stamp-duty. No doubt a nice little sum of money was got in this way, but it was not enough. The interest of the money thus raised would not amount to more than two or three hundreds a-year, and what was that amongst so many? It would not do much more than pay the salary of the "Bedellus." The Licentiates were not allowed to send out physic. This evidently limited their number, and set the College thnking. Could not this restriction be got rid of? At last one of the widest awake of the Fellows struck out an ingenious, if not a dignified scheme. Why not have three orders? Make the Licentiates Members, and have another body of Licentiates who might practise as Apothecaries, charge for pills and boluses, and strap up sore legs? This it was thought would be the expedient that would bring grist to the Pall Mall mill. Besides, it would be feeding fat the ancient grudge the College bore to her humbler sister, the Cinderella of Blackfriars, for having undertaken a work which she had spurned, and done it irreproachably for well-nigh fifty years. The proposal was in its turn adopted. No matter what injustice it did to the old Licentiates and poor deluded Members who had been induced to come and pay their fees a few months before. Many of them had given up drug practice in order to have the honour (?) of belonging to the College; but now they might see their next-door neighbours making hundreds a-year by selling their medicines and putting "Physician" on their door-plates and "business cards." However, this last *ruse* has not been found to answer very well. Somehow, the junior part of the Profession are not alive to the battered charms of the old lady in Pall Mall. Like the ducks in the old story, they *won't* come to be killed. Some fifty or sixty pass a year, but after deducting the necessary expenses, their fees must make but small salaries for the examiners. And now comes the last act of the drama—the last depth of dishonour, than which no lower deep can await the College. I will not say that it was on the covert proposition of some Fellow, although I strongly suspect it, that the petition was got up at Brighton which was presented at the last meeting of the Fellows. I can hardly think that such a piece of flunkeyism could have sprung up spon-

taneously even at Brighton. Oh! that poor Thackeray were alive, what a chapter he might have given us on the Snob Medical! However, the College is already nibbling at the bait. Of course there will be a little haggling about the price of the commodity, and a little simpering and coquetting for the sake of appearance, but I strongly suspect that unless it is shamed out of it the College will sell the honour of its affiliation to all comers.

The injustice the measure will do to the new Licentiates is the very reason that I believe the College will carry it out. It is just what it did before in the case of the old Licentiates, and then again in that of the Members of the year of grace. Really, Sir, the whole thing is very like the "Harlot's Progress." Recollect the two plates, in one of which she snaps her fingers in the face of her Jew protector and kicks over his tea service, and the other in which she is arrested in a night-house in Drury-lane. The time of blushing innocence and purity having passed, in the hey-day of her attractions, when a Baronet by birth was her President and Royal Dukes underwent the penance of Latin orations within her walls, the lady spurned the pecuniary advantages to be obtained from having the Profession at her feet. Now that harder times have come, and her charms of *prestige* have departed, she is glad to welcome her lovers on the easiest terms, and with the most unblushing impartiality to filch from each.

How far this last experiment will succeed I cannot say. The College no doubt expects much from the sensitiveness—shall I call it?—that winces at the name of "Apothecary." As if the English Apothecary's of the present day were not a title of far higher honour than many of the Doctorates which are now as plentiful as blackberries. We English are rather proud of being called a nation of shopkeepers. There is an honest sterling sound about the word that at the bottom of our hearts we hug. And I very much suspect that you, Sir, over-rate the dislike to the term Apothecary. Every one in England knows that it means the practitioner who supplies medicine from his own dispensary instead of writing a prescription, just as we all know that the House of *Commons* means the assemblage of the first untitled gentlemen in the land. If the Profession one and all get this licence from the College, what will they be? Certainly not Physicians in the sense the public use the word; certainly not Doctors,—the law, according to the recent decision in Ireland, will not allow them the title. They will have forsaken a position of recognised high real respectability for a licence which confers neither a title nor a status. Fancy a cross-examining barrister asking a Medical man whether his diploma cost one guinea or two. No, Sir, the position of the English Apothecary is anomalous, no doubt; so is constitutional monarchy, and an ecclesiastical Establishment whose doctrines are fixed by the lawyers of the Privy Council, and almost every other English institution you can mention. But, Sir, however anomalous it may have been, the Apothecaries and Surgeons of England are without doubt the best educated Medical body of equal size in the world. I have no wish to see the anomaly removed by the greater anomaly of a Royal College of Physicians converted into an open shop for the sale of diplomas. If you think that a subscription for the College will serve to avert this last degradation, I shall be most happy to contribute my mite.

I enclose my card, and am, &c.

A County Magistrate and an Apothecary.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, June 28.

Mr. Partridge, President.

Dr. Samuel Fenwick read a paper

ON THE CONDITION OF THE STOMACH AND INTESTINES IN SCARLATINA.

The object of this paper is to prove the following propositions:—1st. That the mucous membrane of the œsophagus, stomach, and intestines is inflamed in scarlatina. 2nd. That desquamation of the epithelium of these parts takes place. 3rd. That, notwithstanding the anatomical changes in the mucous membrane of the stomach, the formation of pepsine is not prevented. 4th. That the condition of the skin is similar to the condition of the mucous membrane in scarlatina. In support of the first proposition, the microscopic examinations of the mucous membranes of the œsophagus, stomach, and intestines were detailed in ten cases of death from scarlatina during the first week of illness, and in six cases who died in the second and third week of the fever. The first effects of the scarlatina poison upon the mucous membrane of the stomach were shown to be the congestion of the blood-vessels and the stripping the epithelium from the tubes and the surface of the organ, and also the softening of the tissues. The tubes are greatly distended by granular and fatty matters, or by small cells intermixed with granules, and in some cases they are lined by a newly-formed membrane. Sometimes no normal cells can be distinguished; in other cases they are present, but are scattered irregularly. After the second or third week the tubes are found less distended than at an earlier period, and whilst their closed ends are still loaded with granular matters, which greatly obscure the gastric cells. These become more evident towards the surface of the mucous membrane. The cells at this period are sometimes very large, sometimes loaded with fat or coated with granules, and seem to have but little adhesion to their basement membrane, as they readily separate from the tubes, but adhere closely to each other. The effects of the inflammation upon the intestines seem, in slighter cases, to consist in the effusion of granular and fatty matters into the mucous membrane; but in more severe cases the tubes of Lieberkühn are obstructed by epithelial cells, whilst extravasations of blood take place in the villi, and these, with the rest of the mucous membrane, are loaded with small cells and granules. In one case the mucous membrane was entirely stripped of villi, excepting a few fragments which still remained, and the enlarged and prominent openings of the follicles of Lieberkühn gave its surface the appearance of a sieve. In some instances in which the pancreas has been examined, evidences of disease presented themselves. The second proposition was stated to be more difficult of proof, inasmuch as vomiting usually occurs only in the first stage, and the author had no opportunity of examining the vomited matters at this period of the disease. In one case, in which vomiting took place in the third week, fibrinous casts of the stomach tubes were discovered, and inflammation of the mucous membrane was proved to have existed by post-mortem examination. The chief reason upon which the opinion that desquamation of the epithelium occurs was founded, was from the microscopic examination of the contents of the stomachs of those who had died of this disease. The contents in recent cases consisted of pieces of fine membrane, of cells, and of granules and shreds of membrane. The membranes were of the shape and size of the tubes of the stomach, and were covered with granules and fat. The cells varied from 1-1200th to 1-2200th of an inch, and were usually fringed with fine pieces of membrane. In cases of longer duration the membranes were covered with cells, and were also of the size and shape of the stomach tubes. In order to ascertain if these appearances were trustworthy as evidences of inflammation, the contents of the stomachs of forty-five subjects were examined at the Middlesex Hospital, the condition of the mucous membrane being at the same time noted. In only one were there any fibrinous casts, and it was in a case of acute gastritis. In eighteen there were only separate cells, chiefly of the columnar form, and in none of these was there any inflammatory action. In eight cases casts of the upper parts of the tubes were plentiful, composed only of healthy conical cells, and in all the mucous membrane was in a natural condition. In eighteen there were either plugs formed of cells and granules from the secreting parts of the tubes, or the casts of conical cells were overlaid with granular matters, and in all of these the stomach was more or less inflamed. Two cases of gastritis, unconnected with scarlatina, were also quoted as examples of the forms in which casts of the stomach tubes appeared in vomited matters during life, and the author stated he had detected casts of the stomach tubes in matters vomited by persons affected with gastritis connected with diseased kidneys, with inflammatory dyspepsia, and other forms of inflammation of the gastric mucous membrane. It was urged that if casts of the gastric tubes can be discovered during life in cases of gastritis, and if in scarlatina this condition exists, and casts have been found in the stomach after death, there is every probability that desquamation of the epithelium takes place in this organ as it does in the skin and the kidneys. In support of the third proposition, the results of the following experiments were given in three cases of scarlatina:—Ten grains of hard boiled white of egg were digested at a

temperature of 90° for twelve hours in an infusion of the mucous membrane, to which 3 per cent. of hydrochloric acid had been previously added. The average loss of albumen was three grains and two-thirds. Similar experiments performed with the stomachs of eleven males, who died of various diseases at the same Hospital gave an average loss of four grains; so that there had been scarcely any diminution of pepsine produced by the fever. As a contrast to this were the results of similar experiments upon four cases who died of typhus fever. In two of these the albumen had gained three grains of weight by imbibition, and was not at all softened; whilst in the other two it was softened, and one had lost only half a grain, the other one grain and a-half in weight. But as the activity of the digestion must depend not only upon the relative amount of pepsine, but also upon the bulk of the mucous membrane, this was also attempted to be estimated. The average weight of the mucous membrane of the stomachs of ten males dying of various diseases at the Middlesex Hospital was eighteen drachms, the weight of two recent cases of scarlatina was eighteen and sixteen drachms, (the latter being in a boy,) whilst it only amounted to fifteen drachms in one who died in the third week of illness. In four cases of typhoid fever the average weight of the mucous membrane only reached eleven drachms. Under the fourth proposition it was stated that the skin had only been examined microscopically in three cases. In the first, in which the patient died after a few days' illness, the only morbid appearance in the cutis was an occasional minute extravasation of blood in the neighbourhood of the sudoriferous ducts. The rete mucosum was greatly thickened, and numerous round cells with large nuclei were everywhere visible, intermixed with the natural cells. The basement membranes of the sweat-glands were thickened, and the epithelium lining them was so much increased that in most cases it obstructed their channels. In some of the sweat-glands the coils of which they were composed were loaded with coagulated blood, and were greatly and irregularly distended. In the other recent case the appearances were similar, excepting that the external layers of the cuticle were stained with blood in minute patches, and the sweat-ducts were also reddened; but there were no extravasations of blood either in the glands or cutis. In some of the ducts the epithelium was detached from the basement membranes. In the case of a man who died during the third week the sudoriferous tubes were still choked up, but in the glands the epithelium seemed in many places to be torn away, leaving the basement membranes bare, or only covered by ragged particles. The cutis was in a natural condition. The author stated that although he had, in accordance with the usual custom, described the appearances of the skin and mucous membranes as the results of inflammation, yet that certain considerations suggested the idea that the term when so used was perhaps misapplied. In scarlatina, we find that in each part the morbid condition is mostly confined, in the first instance, to the basement membranes, and consists in the formation of layers of new cells, which, in the skin, are transformed into cuticle of natural appearance, and in the stomach contain pepsine. If future researches should prove that a similar condition occurs in the kidneys and other parts, it will be necessary to look upon the structural changes produced as resulting from increased physiological, rather than from pathological action; and that the primary effect of the scarlatina poison is suddenly and violently to stimulate the natural cell-growth of the various secreting organs.

Dr. Wilson Fox said that he had listened with much pleasure to Dr. Fenwick's very able paper. It had possessed an especial interest for him, inasmuch as Dr. Fenwick's observations on scarlatina confirmed those which he had himself communicated to the Society in 1858, on the condition of the stomach in a variety of acute diseases, including variola, typhoid and puerperal fevers, pneumonia, peri- and endocarditis, cholera, and many others, in which he had found the stomach in a condition very closely resembling that described by Dr. Fenwick, and which, after Professor Virchow, he had designated as one of acute catarrh, the mucous membrane being hyperæmic, swollen, and cloudy-looking, and covered with very tenacious mucus. This condition Dr. Fox had always found associated with a granular condition of the epithelial cells, which were shed with great facility both from the surface of the membrane and from the interior of the tubes, and were found in great numbers, and often enlarged and presenting multiple nuclei in the tough mucus covering the surface. Dr. Fox said that since he had made these observations he had been in the habit of regarding the furred condition of the tongue in acute diseases as an index of the same irritative production of epithelium through the gastric intestinal tract. He had also at the same time been able to point out, on anatomical grounds, that chronic affections of the stomach were frequently associated with chronic affections of other organs. On some points of detail Dr. Fox said that his observations differed from those of Dr. Fenwick. He had not examined with the microscope stomachs of patients dying from scarlatina, but the appearances which these presented to the naked eye corresponded so closely with those to which he had alluded that he spoke on them with more confidence than he should otherwise feel inclined to do. He still thought, as he had pointed out in his original paper, that the granular matter which Dr. Fenwick described as occurring free in the tubes was really contained in the interior of epithelial cells, and that it was only in the severest cases of acute gastritis, in which the cells became at once broken down, that the granular matter was found free. With regard to the casts of tubes described by Dr. Fenwick, Mr. Fox, not having examined the stomachs of scarlatina patients, could not make any positive observations, but he had never found any in the cases of other diseases which he had mentioned. He had, however, often observed appearances in the mucus having a most deceptive resemblance to casts, from the manner in which the epithelial cells were agglutinated by the tough mucus. He did not think that these casts if they did occur in the stomach could be of a fibrinous nature any more than the first epithelial desquamations from the kidney in the early stages of Bright's disease possessed that character; nor was he of opinion that the membrana limitans of the gland separated with the epithelium. He believed that when the membrana limitans (when it existed) was destroyed or injured, the power of reproducing epithelium was impaired or lost. Epithelium often separated in continuous masses from mucus surfaces and from the interior of glands.(a) Such desquamation was not only exceedingly common under conditions of irritation, but was also under some circumstances a physiological act. It had been noted long ago by Mr. Goodsir during digestion, and many recent observations on this subject were contained in Virchow's Archiv. Dr. Fox was of opinion that Dr. Fenwick's observation, though very valuable as evidencing the participation of the stomach and intestines in the consequences of the scarlatina poison, did not show anything specific in that organ or peculiar to the disease in question.

Dr. Webster had listened with great gratification to the paper, especially as it confirmed what he had observed as to the employment of remedies in scarlet fever. It gave a great additional value to the minute researches of the author that they had a practical bearing in treatment. Dr. Webster then related instances in which the internal administration of irritating remedies, especially purgatives, did harm. He referred also to the bad effect of articles of diet which were sometimes given to children in scarlet fever to tempt the appetite; and, lastly, alluded to the good effects of sponging the skin with tepid water and vinegar.

Dr. Murchison said that he had examined the stomach in twenty cases of scarlet fever, and found, on the whole, similar appearances to those described by the author, but he agreed with Dr. Fox that the granules were in the interior of the epithelial cells. He had not seen any casts. He thought, however, that the author had called attention to an important complication, but he (Dr. Murchison) could not agree that it was of universal occurrence, as he had examined the stomach in several cases of scarlet fever and had found it quite healthy; and, on the other hand, he had found changes like those in scarlet fever in the stomachs of those who had died of other diseases.

The Author said the question was one of experience, and continued examination would no doubt settle the question. In every case that he had examined during four years, he had found the changes he had described. In some cases of scarlet fever the skin was not affected, and yet it was still called scarlet fever, and just so in a few the stomach might escape. Still we should in a large number find evidence of inflammation of the stomach. The paper was chiefly to draw attention to the subject. In reply to Dr. Fox, he said that he had made the sections straight with a double-bladed knife, and examined them by a low power with a parabolic condenser. He had found casts, best in children who had died a few

(a) Dr. Fox begs us to append to his remarks a fact which he omitted to mention to the Society, that he has notes of a case of acute inflammatory diarrhœa, which came under his observation some years ago, and of which he has preserved drawings of casts of the crypts of Lieberkühn, found in the intestinal mucus.

days after the disease began, but in other cases he had not found them, and sometimes he had only found plugs as described by Dr. Fox. These plugs, he had no doubt, were the result of inflammatory action. After a few further remarks the speaker was obliged to conclude abruptly, as the time for reading the remaining papers was very limited, this being the last meeting of the Society.

(To be continued.)

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MAY 4.

Dr. OLDHAM, President, in the Chair.

THE following gentlemen were elected Fellows of the Society: Mr. E. Des Forges (South Cave, Yorkshire), Mr. Hartley, Dr. H. Hasenfeld (Pesth, Hungary), and Dr. Wharton P. Hood (Lower Seymour-street).

Dr. BARNES exhibited a small fibroid tumour of the uterus spontaneously expelled from a patient who had suffered from metrorrhagia.

Dr. GREENHALGH communicated the result of the case of amputation of the cervix uteri mentioned at the last meeting. The patient died some days after the operation, of peritonitis.

Dr. BARNES, remarking on this case, observed that Dr. Marion Sims' method of removing the cervix uteri was superior to the operation by the écraseur, the surface left denuded being smaller, and the risk of peritonitis probably less.

Dr. FUSSELL, of Brighton, exhibited a specimen, consisting of the uterus of a patient who had died five days after removal of a cancerous tumour from the cervix uteri. The interior of the uterus was found diseased, and there were also fibroid tumours in the uterine parietes.

Dr. ROUTH stated, in the course of a discussion which arose on the merits of different écraseurs, that he had found by experiment that the wire-rope écraseur cut through the tissue of the cow's uterus more readily than the chain écraseur.

Dr. GRAILY HEWITT exhibited an entire ovum of seven months' development which had been forwarded to him by Dr. Whitmarsh, of Hounslow. The ovum had been expelled ten days after symptoms of labour had set in.

A paper, by Mr. J. MORTIMER GRANVILLE, was read on

THE APPLICATION OF EXTREME COLD AS AN ANODYNE IN THE PAIN ATTENDANT ON PARTURITION.

An examination of the phenomena of labour, more especially in relation to the nature, duration, and intensity of the pain accompanying it, has led the author to the following conclusions:—1st. The actual pain (as distinguished from the sensation of forcing) experienced by the parturient woman bears no definite proportion to the force and efficiency of what (for want of a better name) we term "the pains" of her labour. 2nd. The sensation of pain is not invariably synchronous with the occurrence of uterine contraction, the effects of the latter being perceptible to the accoucheur not unfrequently, during examination, before his patient experiences the former. From these circumstances, taken in connexion with others well known to careful observers, it may be inferred that the pain attendant on labour is more directly related to the effects of uterine contraction (perhaps mechanical force operating on nervous tissue) than to the specific muscular act itself. The reference of the pain to some region more or less remote from the contracting uterus or the dilating external passages (in which the seat of pain might have been supposed to be located) appears to support the last inference; whilst it clearly points to the conclusion that the pain attendant on labour is neuralgic in its character. Acting on this theory, the author has tried the effect of extreme cold as a topical anodyne, and the result has been so constant that, after repeated experiment, he feels confidence in bringing this new method of seeking to alleviate the pains of labour before the Society, and suggesting its adoption by the Profession. The method is applicable in all cases, independent of the condition of the patient,—cold being already in use as a powerful means of exciting the uterus to contraction in cases of extreme exhaustion. It is perfectly free from the dangers so inseparable from the most cautious use of anæsthetics. It is perfectly manageable, and may be safely confided to a nurse; and its *rationale* is in strict conformity with the well-known principles of physiology. It is not intended to remove, but to alleviate, the pain attendant on parturition. It will be found that the power of the uterine efforts is generally increased, without any corresponding increase in the attendant suffering, the patient being not unfrequently under the impression that the pain has ceased when the presentation continues to evidence the continuance of the expulsive force. This has been very remarkable in some of the cases—the pains appearing to be shortened, when examination has proved them to be prolonged. The actual pain is sensibly diminished, the patients expressing themselves variously, but to the general effect that they are relieved of half their suffering. The method of the application is of the greatest importance. The cold must be extreme, or it is of little if any service, and it must be persistent. An apparatus was exhibited consisting of a flat tin box, which is filled with a freezing mixture and applied to the seat of the pain.

Dr. OLDHAM believed some difficulty would be found in determining what was the seat of pain. Madame Boivin referred the pain during her own labours to the neck of the uterus.

A paper, by Dr. ALFRED MEADOWS, was read on

A NEW MODE OF TREATING CASES OF VESICO-VAGINAL FISTULA.

It was contended in this paper that the usual practice of keeping the patient in bed for two or three weeks after the operation for the cure of vesico-vaginal fistula is unnecessary, and that, on the contrary, she may be allowed with perfect safety to go about as usual immediately after the operation. The author showed that the reason given for the former practice—viz., that the parts should be kept quiet, is as fully attended to in the plan suggested as in that usually followed, because the movements of the body do not interfere with the quietude of that particular portion of the floor of the bladder where the fistula existed, there being no muscles in this region which can by their attachments prejudicially affect the part in question. With regard to the second consideration,—that the urine should be kept from the surface of the fistula, either by the constant employment of the catheter or by its frequent use,—the author exposed the fallacy of this argument by briefly reviewing the circumstances which exist after every operation of this kind. At first the bladder is quite empty, but, as urine gradually flows into it, the organ becomes slowly distended; and the very fact of this distension taking place by the uniform pressure of the urine proves that contact of that fluid with every part of the bladder-wall cannot be avoided: no position of the patient can prevent it, and consequently the recumbent posture is not needed on this account, nor is the use of the catheter of any service. Two cases were detailed in which the plan here suggested by the author had been carried out with perfect success. In one, where chloroform was not administered, the patient went about immediately after the operation, and followed her usual avocations. In the other case the patient had chloroform, and on this account chiefly she kept in bed that day; but the next day she was allowed to go out, and her cure was equally complete. In both cases the opening was large enough to admit the finger easily; and in one of them it was situate far in the vagina. The author recommended the use of many sutures, merely twisting them, and without either clamp or shot; he also advised that they should be allowed to remain some time to secure firm union, their presence occasioning no inconvenience. One of the cases cited was further remarkable inasmuch as by the process of sloughing which had previously taken place no trace of the uterus could anywhere be discovered, and the patient has continued for some time past to menstruate through the bladder.

Dr. OLDHAM thought it a great point to save patients from the irksomeness of wearing apparatus; and by showing that the confinement hitherto considered necessary was not required, Dr. Meadows had done good service.

A paper by Dr. A. HARRIS was read on

A CASE OF HYDRO-ENCEPHALOCELE.

The subject of this case was the thirteenth child. A tumour hung from the back of the head at the upper part of the occipital bone; it measured nine inches round, and was four inches and a-half long; it contained fluid. The day after birth, four ounces and a half of a highly albuminous fluid were removed by a canula and trochar. Two days later it was again punctured. Nine days later a spontaneous evacuation occurred. The child wasted gradually, and died when three months old.

A paper by Mr. THOMAS W. NUNN was read on

DESTRUCTIVE INFLAMMATION OF THE HIP-JOINT IN A PUERPERAL WOMAN.

The patient was admitted into the Middlesex Hospital twenty-

seven days after delivery of her second child, complaining of pain, swelling, etc., of the right hip. She had a patchy tongue, glazed fauces, and a pulse of 130. No inflammatory or other disease of the pelvic viscera. According to the patient's account, she suffered some post-partum hæmorrhage, and for three weeks had offensive discharges. The pain in the hip commenced nine days after delivery. The infant was suckled no longer than fourteen days. On the thirty-sixth day Mr. Nunn passed in deeply a narrow bistoury at the back of the trochanter, and gave exit to twelve ounces of pus. On the forty-fourth day rigors came on, and on the forty-eighth day death took place. The post-mortem examination revealed most extensive denudation of the head of the femur, the cotyloid cavity, and neighbouring osseous structures; no invasion of the pelvis by matter through the thyroid foramen; the uterus and other pelvic viscera not visibly affected; in the lower lobe of the left lung a small solidified patch the size of a bean, with a yellowish softened centre. Joint disease the author believed was generally accepted to be one of the consequences of puerperal fever, and under such circumstances to be the result of pyæmia. The question was—Is there a liability to joint inflammation peculiar to the puerperal state independent of ordinary purulent infection characterised by an absence of acute constitutional symptoms? The author related a case by Dr. Fenwick bearing on this point. He expressed a conviction that many analogous cases lay scattered over, and so to speak fossilised in, the experience of accoucheurs; and that it would be well, if his conviction should be justified by facts, that something more definite than is to be at present found in Surgical text-books were made available to the student by these cases being brought to light. The obvious practical point was regarding the moment when an incision into the joint might justifiably be made, so as to relieve the system of the grave complication of pent-up matter.

Dr. Martyn gave the particulars of an interesting case somewhat similar to Mr. Nunn's; the patient recovered, however, after an illness of many months' duration. The abscess should not, he believed, be opened. Rest was very important.

Mr. Nunn, in reply, said that it was curious to observe, in consulting various works, that the Surgeons had apparently left the question of puerperal joint disease to the obstetricians, and that the obstetricians had tacitly relinquished it to the Surgeons. A very important and highly interesting matter had thus, between the two, not received that elaboration which it required.

NEW INVENTIONS.

SALMON'S MIDWIFERY BELT.

Mr. Henry Salmon, of 32, Wigmore-street, has forwarded a specimen of an abdominal belt for immediate use after delivery. It consists of a central, flat, stiffish pad to go over the uterus, and of a circular belt with laces or buckles. It is of a washing material, and costs but 5s., so that the wearer can have two or three in use. It appears to be light and efficient.

DR. CHAPMAN'S ICE BAGS.

We have received specimens of india-rubber bags for the application of ice, or of water of varions temperatures, to the spine, or to either side of it. The ice bag, which has evidently been constructed with a great amount of thought, is divided into cells, and closed by a very ingenious clamp, and arrangements for enabling it to be worn by persons who are moving about. The other bag consists of two parallel india-rubber tubes for the application of hot or cold water on either side of the spine. These bags are intended to enable the Practitioner to carry out those "vaso-motor nerve" views of the treatment of disease which were enunciated by Dr. Chapman in this journal July 18, 1863.

Acquittal on the Ground of Insanity.—At Chelmsford on July 16, a woman, named Emma Howard, was acquitted on the ground of insanity of the murder of her child by drowning. It was proved that previously to the murder she had been in a very desponding state, and had complained frequently of her head. Her grandmother, aunt, and two cousins had been insane.

The Sydney Museum.—By the *Madras*, which has just arrived in England, a private communication informs us that Mr. Krefft had just (May last) been elected Curator of the Museum in the vacancy occasioned by the decease of Mr. S. R. Pittard. The salary is £500 per annum, with an additional £200 per annum for an assistant curator or collector.

MEDICAL NEWS.

Royal College of Physicians of London.—At a General Meeting of the Fellows held on Wednesday, July 20, 1864, the following gentlemen, previously Members of the College, were admitted Fellows of the same:—

James Edward Pollock, M.D., 52, Upper Brook-street; William Wood, M.D., 54, Upper Harley-street; William Overend Priestley, M.D., 17, Hertford-street, May-fair; George Harley, M.D., 77, Harley-street.

At the same Meeting the following gentlemen, having undergone the necessary Examination, and satisfied the College of their proficiency in the Science and Practice of Medicine, Surgery, and Midwifery, were duly admitted to practise Physic as Licentiates of the College:—

William Skinner, Sheffield; Thomas Haywood Smith, Alcester; John Wickliffe Jones, Assistant-Surgeon R.N.; Leo Charles da Silva, Burntwood, Wandsworth; John Lewis Jones, Carnarvon.

The following gentlemen were reported by the Examiners to have passed the First part of the Professional Examination for the Licence:—

Francis Bateman, St. Bartholomew's Hospital; Stephen W. Bushell, Guy's Hospital; Henry Clothier, University College; Thomas Cole, St. Bartholomew's Hospital; Henry Cribb, Bishops Stortford; Henry Denne, Guy's Hospital; William S. Eccles, St. Bartholomew's Hospital; John S. Ferris, King's College; John Gill, Guy's Hospital; George W. Malin, Sydenham College, Birmingham; Robert Robinson, St. Bartholomew's Hospital; George A. Rogers, 14, Commercial-place, Commercial-road; Henry Rundle, St. Bartholomew's Hospital; Reginald P. Simpson, 82, Gower-street; Francis M. B. Sims, 8, Sackville-street; William Skinner, 8, Ampton-place, Gray's-inn-road; William A. P. Stuart, University College; John Stuckey, University College; Theodore T. Taylor, St. Mary's Hospital; John B. Welch, King's College; James A. White, Salford; Edward F. Willoughby, University College.

Royal College of Surgeons of England.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology, at a meeting of the Court of Examiners, on the 19th inst., and when eligible will be admitted to the Pass Examination:—

Alderson Newsam, R. R. S. C. C. Lloyd, J. D. Rowlands, and W. H. Pywell, Students of Guy's Hospital; James Kelly, J. H. Quinn, Thomas Laffan, and G. R. Dunn, of Dublin; W. J. Mountain and W. B. Swann, of Leeds; T. A. Turner, Charing-cross Hospital; F. W. Lowndes, Edinburgh; W. Y. Martin, Manchester; Jas. Wickham, Middlesex Hospital; Richard Jeffreys, Sheffield; W. A. Creaser, Hull; W. B. Dawson, London Hospital; and J. M. Gibbes, of St. George's Hospital.

The following passed on the 20th inst.:—

J. M. Whitwell, J. E. Coxwell, and S. S. McMillan, Students of University College; T. H. Redwood, Campbell Orme, and F. R. Haward, of St. Bartholomew's Hospital; J. M. Fraser and Petras Constantinides, of Canada West; S. H. Smith and J. S. V. Tifield, of King's College; William Roberts and Francis Derbyshire, of Manchester; Myrry Clarke, Edinburgh; R. B. Wall, St. Mary's Hospital; W. G. Marsh, Guy's Hospital; Eustace Greenaway, London Hospital; and J. W. D. Bain, of the Westminster Hospital.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, July 14, 1864:—

John Frederick Foster, Old Court, Guernsey; Henry Hope and Albert Comberbach Reade, St. Bartholomew's Hospital; Duncan Francis Sinclair, Halstead, Essex; Henry William Freeman, Bideford, Devon.

As an Assistant:—

Walter Alfred Marsh, 23, New Kent-road, S.E.

The following gentlemen, also on the same day, passed their First Examination:—

Francis M. B. Sims, St. George's Hospital; Richard Murhall Hickman, King's College; John Swindale, Middlesex Hospital; August Müller and Napoleon Bisdee Major, St. Mary's Hospital; John Chamberlin Eaton, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Colden, E., M.R.C.S. Eng., has been elected House-Surgeon to Queen Adelaide's Dispensary, Wilmot-square, Bethnal-green-road.

Fernandes, A. L., M.R.C.S. Eng., has been elected House-Surgeon to the Sheffield General Infirmary.

Harvey, Alexander, M.D. Edin., has been appointed Joint Lecturer on Clinical Medicine in the Royal Infirmary, Aberdeen.

Hayes, T. E. D., M.R.C.S. Eng., has been appointed Resident Medical Officer to the Kent County Ophthalmic Hospital.

Firth, J. T. Forbes, L.F.P. and S. Glasg., has been appointed Surgeon of the Workhouse, Rotherhithe, S.E.

Richards, J. Peeke, M.R.C.S.E., has been elected House-Surgeon to the Stockport Infirmary, *vice* H. Stanley Gale, M.B., resigned.

Roe, William, M.D., has been elected House-Surgeon to the Liverpool South Dispensary, *vice* W. P. Brabazon, M.D., resigned.

Williamson, William, M.D. Edin., has been appointed Joint Lecturer on Clinical Medicine in the Royal Infirmary, Aberdeen.

DEATHS.

Abraham, Thomas, F.R.C.P. Edin., at Marsden-villa, Haverstock-hill, N.W., on July 16, aged 57, late of New Broad-street, E.C.

Acheson, Johnston H., F.R.C.S. Eng., Surgeon R.N., at Dalkey, Co. Dublin, on July 8, aged 77.

Barnes, John, M.D., at 3, Rupert-road, Upper Holloway, on July 18, aged 63, late of 32, Tavistock-place.

Fell, William, M.R.C.S. Eng., at Ambleside, Westmoreland, on July 18, aged 62.

Forrester, William, Surgeon H.M. Madras Army, on June 30, on board the steamship *Nubia*, in the Red Sea, aged 46.

Gibson, John, L.F.P. and S. Glasg., at Tarbolton, Ayrshire, on July 7.

Young, William P., L.R.C.S.I., at James's-street, Dublin, on July 8.

Recognition of the Services of Medical Men in the New Zealand War.—The *Gazette* of Friday, July 15, publishes despatches received by the Secretary of State for War from Lieut.-General Sir D. A. Cameron, K.C.B., commanding the troops in New Zealand. He mentions with special commendation the names of Deputy-Inspector General Mowat, Surgeon M'Kinnon, 57th Regiment, and Assistant-Surgeon Mauley, of the Royal Artillery.

News from the Antipodes.—It is stated in the *Sydney Morning Herald* that Dr. Glennie, of Singleton, has resigned the office of coroner for that district in consequence of the shabby treatment he has received at the hands of the Government. Dr. Henry O. G. Smeathman, a native of England, who practised for some time in California, and was one of the correspondents of the *San Francisco Bulletin*, had, when the mail left, just been murdered by the Indians in an exploring expedition he was making with Messrs. Thompson and White. It is added that the party had only one revolver between them; the Doctor always laboured under the erroneous impression that in case of trouble with the Indians he could do more by masonic signs and moral persuasion than with bullets; he fell like a brave man covering the successful retreat of his more fortunate companions. The same paper makes the remarkable announcement that children running bare-footed in the fields where sheep affected with the foot-rot are placed, contract the same disease.

Small-pox in Sheep.—Mr. Marson, of the Small-pox Hospital, and Professor Simonds, of the Royal Veterinary College, have presented their report of experiments, made under direction of the Lords of the Council, as to the influence of vaccination of sheep in preventing sheep-pox. They state that sheep-pox is not known to have existed in England but on three occasions—in 1710-11, 1847-50, and 1860, and that it is always the result of infection. They find that vaccination cannot be relied upon as a preventive or mitigant, as the vaccine disease in these animals is but very imperfectly developed even in the most successful cases. But they consider that inoculation is a measure which, if rightly carried out, offers considerable advantages. It gives security against a natural attack, for, as a rule, sheep-pox occurs but once. It limits the period of the existence of the disease in the flock, mitigates the severity of the malady, saves the lives of many sheep which would otherwise be sacrificed, and produces comparatively but little loss of condition. It controls the extension of the disease, as one confluent natural case does more to diffuse the poison than probably fifty ordinary inoculated cases would do. Lastly, the mortality of the inoculated disease, when compared with the natural, is on the average only as 3 per cent. in the one case is to 50 per cent. in the other.

A New Penalty for Signing a Certificate of Lunacy.—On Monday, at the Police Court, Clerkenwell, Mr. James Day, aged 25, residing at 18, High-street, Camden-town, was brought up on a warrant by police-constable Willingate, 436 S, one of the warrant officers of the court, charged with committing a murderous assault, and threatening to murder Mr. John Hackney, a Surgeon, residing and carrying on business at 31, Myddelton-square, Clerkenwell. The complainant, who had a severe bruise on his face, nose, and eye, said that the prisoner had frequently threatened his life, and a short time since had come to his house and broken his windows and threatened to do him grievous bodily harm. The prisoner was then locked up and was brought to this court, but he did not press the charge, the prisoner's father having paid the damage, and stated to the Court that he would get the prisoner into a lunatic asylum. He first became acquainted with the prisoner by signing a certificate to the effect that he was out of his mind, and on that certificate, backed by another, the prisoner was detained in a lunatic asylum. Since the prisoner had been discharged he had frequently annoyed him and threatened his life. On Friday last the prisoner called at his house, and when the door was opened by the page the prisoner swore at him and threatened his life, and then asked him if he (the witness) was in. He was told that he had been forbidden the house, and that he had better go away; but he would not go, and then the witness went out and told him that he must leave. He refused to do so, on which he opened the door and gently touched him on the shoulder, and said he should insist on his going out. The prisoner no sooner saw the door opened than he caught hold of witness by the collar, pulled him out on the door-step, struck him with both hands, blackened his eye, bruised his face, and otherwise assaulted him. The prisoner said he would murder him. Complainant's daughter said she saw the prisoner assault her father, and had heard him threaten to do for him. The prisoner said there seemed to be a sort of compact between all the doctors in the metropolis to annoy him. They were always annoying him. Mr. Barker said he should send the prisoner to the House of Detention, to ascertain the state of mind he was in. The prisoner said he did not care about that, for he was not mad.

The Army Medical Department.—The following petition has been sent us for publication. We wish that all the Medical examining bodies would follow the lead of the Scottish Colleges in pressing on Parliament the necessity for an inquiry into the state of the Army Medical Department:—

"To the Honourable the Commons of the United Kingdom of Great Britain and Ireland in Parliament assembled,—

"The petition of the President and Fellows of the faculty of Physicians and Surgeons of Glasgow, humbly showeth,

"That your petitioners have exercised the functions of a chartered College of Physicians and Surgeons since 1599; and, besides examining and licensing Medical Practitioners, have always taken an interest in whatever has affected the Profession of medicine.

"That the inadequate remuneration of the Medical officers of Her Majesty's Army, and their deficient authority in purely Medical questions, involving, as this latter has done, alike the safety, in a sanitary point of view, of the troops, and the well-being and comfort of the sick soldier, were long matters of regret to your petitioners.

"That in 1857 your petitioners had great satisfaction in finding the pay of Army Assistant-Surgeons somewhat raised at the recommendation of a Committee of your Honourable House, and that in the following year the relative status of Medical, as compared with military, officers, was placed by a Royal Warrant on an honourable and satisfactory footing.

"That your petitioners regret to learn, however, that the advantages of the said Warrant were speedily much modified, either by not being acted on, or by authoritative alterations.

"That the desirableness of the Army as a field for the efforts of young Medical men has become in consequence lowered, and the number of candidates for admission to the service lessened; and that from these causes, as well as from numerous others originating with the Army Medical Executive, the number of vacancies in the Medical Department of the Army has become alarmingly great, and the safety of the Army, especially in the event of war, has become much compromised.

"May it therefore please your honourable House to grant a Committee of Inquiry into all the circumstances connected with the existing state of the Medical Department of Her Majesty's army, as they relate particularly to the relative rank and privileges, and the authority in purely Medical or sanitary matters of the Medical officers of the service, and also to other subjects of complaint arising out of what your petitioners respectfully think the mistaken views of the Medical Executive.

"And your petitioners will ever pray.

"Signed in name and on behalf of the Faculty of Physicians and Surgeons of Glasgow, and sealed with the common seal of the said Faculty.

"(Signed) "Chas. Ritchie, M.D., President."

THE PRICE OF A "PROFESSIONAL" WITNESS AGAINST A DOCTOR IN IRELAND.—HARRIS *v.* TWISS.—At the Nenagh Quarter Sessions, before Serjeant Howley, the case of Martin Delany, bone-setter, Nenagh, *v.* Mr. George Twiss, Birdhill, has been tried. Mr. Magrath stated the case. He said it was an action brought by plaintiff, who is a bone-setter, against Mr. Twiss, for expenses incurred in attending "professionally" as a witness for Mr. Twiss at Newport and Limerick, in cases against Dr. Harris. Delany was sworn, and deposed he received a letter from Mr. Twiss, asking him "to attend at Newport at an investigation to be held into charges against Dr. Harris, and stating that he (Mr. Twiss) would pay him his expenses, and that he (Delany) would earn world-wide reputation by it." Plaintiff accordingly went to Newport twice, and was also subpœnaed to attend the trial in Limerick, in the action of Dr. Harris against Twiss; got 5*s.* with the subpœna, but never received a shilling except that, although he was out two days and a night in Limerick. Cross-examined by Mr. Bolton: I know a man named Armstrong; he gave me nothing; my car-hire was paid to Newport, but not to Limerick; after the trial I met Mr. Twiss; he gave me 6d. one time, and 4d. another; he told me as soon as he was paid by Dr. Harris he would pay me. Armstrong was next examined, and deposed that he paid Delany's car-hire up to and back from Newport on the first occasion, and also gave him 3s. 6d. Delany: No, but 2s. 6d. Armstrong: I gave you 2s. 6d. the second time, and paid your car-hire; I also paid for your support in Limerick, and gave you 2s. which you said you owed at the lodging-house, and I gave you 2s. 6d. at Birdhill, when returning home, besides paying your fare on the car. Mr. Magrath said that, even believing Armstrong's statement, Delany, who had been brought up to those places professionally to contradict Dr. Harris (laughter), was entitled to more than what had been paid him. Mr. Twiss: I gave him 6s. Mr. William Spaight (to Mr. Magrath): That was for Newport. Mr. Twiss: How do you know what it was for? (Laughter). His Lordship: I must have order in this place, whatever is allowed in other courts (laughter). [To the Hon. Mr. Prittie, who sat between Mr. Spaight and Mr. Twiss under the bench.] I hope, Mr. Prittie, you'll stop there between those gentlemen. (More laughter). A decree for 5*s.* with costs was granted.—*Nenagh Guardian.*

THE GERMAN PRACTITIONERS IN PARIS.—In a letter from Paris appearing in the *Wien. Med. Wach.*, it is stated that there are about twenty Germans practising in Paris, some of them enjoying a first-rate celebrity. The liberality with which all obstacles have been foregone by the French Government and Faculty is in striking contrast with what prevails in Vienna, where even the diplomas of different Universities of the same empire are not acknowledged as giving a right to practise. Among the German practitioners in Paris, the names of Gruby, Liebreich, Mandl, Meding, Sichel, and others are widely known. *Gruby* was a poor student at Vienna, who laboured diligently under Hyrtl, Rokitansky, and other able Professors, and he probably would have settled in his place of education, but being a Jew, all posts were denied him by Austrian intolerance. He therefore went to Paris, where he has acquired fame both as a teacher and practitioner. In the latter capacity his views are narrow enough, ignoring the maxims of Medical science, and professing to treat disease solely by regimen. Still he is in enormous repute, his consultation room being crowded all day, chiefly with hysterical women, who often send their servants beforehand to secure their turns. Gruby is a very different man among his anatomical and chemical preparations at his laboratory in Montmartre, and his hospitality to foreign visitors is boundless. *Leibreich*, the former assistant of Von Graefe, at Berlin, has advanced far more rapidly than most practitioners at Paris. He has established an opthalmic clinic, with sixteen beds and Dispensary, in the Quartier Latin: and here he not only sees the poor gratuitously, but gives five-franc consultations to those of slender means in an adjoining room. This clinic is amply supplied with patients, and foreign Physicians from all parts of the world flock to his lectures. His ophthalmoscopic demonstrations are skilfully performed, and he is always ready to enter into explanations. In the afternoon the richly-decorated waiting-room of his residence in the Champs Elysées is frequented by rich and fashionable patients; for, combining most polished manners with profound knowledge of his specialty, he has acquired a large practice in a remarkably short time. Mandl also enjoys a good reputation both as teacher and Practitioner, the laryngoscope especially of late occupying his attention. With a good consultation practice, and his Dispensary in the Quartier Latin, he yet finds time for the scientific pursuits which have given him an European reputation. Besides Leibreich, there are three other pupils of Von Graefe who are making their way in Paris as oculists, and Von Graefe himself always passes a month every year in that capital, during which he of course sees many patients. A Dr. Lowenberg, a pupil of the celebrated Politzer, has also established himself as an aurist in Paris, and founded a clinic for diseases of the ear.

HUDSON ET UXOR *v.* NORTH EASTERN RAILWAY COMPANY.—In a case tried at Durham, on July 13, before Chief Justice Cockburn, the difficult question was raised, whether a mammary cancer was developed as the effect of an injury received in a railway accident. The jury, it will be seen, decided in the affirmative. The following are the particulars:—In a collision on the Stockton Railway Mrs. Hudson "received a blow, which broke the comb in her hair at the back of her head to pieces, pitched her on the opposite seat, and when she came to herself she found she was seated in the corner at the opposite side of the carriage, no one else but herself and her son being in it. How long she remained neither herself nor her son could tell." After considerable exposure and fatigue and suffering she arrived at her home. "She could not rest or sleep, and felt shaken and ill all over. She had several bruises about her arms and in other parts of her body, and was attended by her family Surgeon, who gave her some medicine and recommended rest and quiet. She was getting better apparently, but on the Sunday after the collision (her sister coming to dine with her that day) she for the first time observed a blue mark on the upper part of her left breast, and showed it to her sister. She thought it a bruise, like others which she had received, and that it would go away. She rubbed it with oil for two or three days, at the expiration of which time she felt a hard lump like a nut. The blackness disappeared, but the swelling and hardness increased, and, after several weeks had elapsed, as the bruise or injury was getting worse, she sent for her doctor, Mr. Atkinson, who treated her for some time, and then pronounced the injury to be cancer of the breast, and in his opinion it had been caused by the blow which she had received in the collision in the railway train. The disease proceeded, and at last he recommended that the breast should be removed, and its removal took place in April, two other Surgeons assisting him in the operation. The cancer was then in its third stage, and on the point of ulceration, and as large as a turkey's egg." The plaintiff's case was that, assuming that there had been a cancerous diathesis in the plaintiff, yet the blow she had received had been the exciting cause which had led to the development of cancer, without which the disease of cancer might never have shown itself. But it was also proved that the plaintiff had been a remarkably healthy woman up to that time, and, although she had a family of four sons, the Doctors' bills of the family for twenty-six years had only been £13. The case for the defendants was that the plaintiff must have had the disease when she was in the collision, otherwise it would not so rapidly have developed itself; and Sir John Fife, Mr. Annerdale, and Mr. Raine, eminent Surgeons of Newcastle, were called to prove that the blue mark observed on the Sunday after the accident must have been the discoloration often exhibited in cancer in its third and last stage before suppuration. On cross-examination, however, Sir John Fife, who said he had attended 600 cases of cancer, admitted that he should expect the patient to suffer pain and inconvenience from it before it arrived at that stage; whereas the plaintiff had never in her life felt any pain whatever in her breast till after she observed the blue mark a week after the collision. His lordship having carefully summed up the evidence, the jury found a verdict for the plaintiff. Damages, £400.

CONIUM IN CHRONIC MONARTICULAR SWELLINGS OF SCROFULOUS SUBJECTS.—Professor Laboulbène relates some cases in proof of the efficacy which he attributes to the external and internal employment of conium in chronic inflammation of the joints, usually a consequence of monarticular rheumatism in scrofulous subjects threatening to degenerate into white swelling. In his cases the elbow, wrist, or knee was the joint implicated, the tumefaction around it exactly resembling in its characters that of commencing white swelling. He employed the hemlock exclusively, giving pills composed of a grain of the extract, and a grain of the powder of conium from two to four times a day, and using an ointment formed of ten parts of the extract to thirty of lard.—*Bull. de Thérapeutique*, vol. lxiii. p. 298.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

J. B. W.—We satisfied ourselves that our correspondent's antecedents were respectable.

C. W. F.—40, Endell-street, Long-acre, W.C.

F.R.C.P.—Dr. Robert Barnes's lecture was published in the *Medical Times and Gazette* for October 17, 1863. We know of no later communication by him to any Medical Journal.

C. Cornish, Polperro, Cornwall.—Valentine Greatrakes was an Irish gentleman who cured diseases by touching or stroking the parts affected. See "Hutchinson's Biography."

Percy, Fowey.—The number of Fellows who recorded their votes at the College election in 1863 amounted to 313, of whom only 59 were Provincial Surgeons.

W. D. S., M.D.—The British Medical Association will hold its thirty-second annual meeting at Cambridge on August 3. The halls alluded to will be thrown open to the visitors.

Associate, King's College.—The circumstance alluded to is quite accidental. Mr. Lawrence is the senior Member of the Council. A few years ago the four Surgeons of the Westminster Hospital on the Council were Sir Anthony Carlisle, Mr. Lynn, Mr. White, and Mr. Guthrie. They were all Examiners.

A Fellow by Examination.—There is no mystery in the matter; the statement made in *this* journal is officially correct. The receipts of each member of the Court of Examiners is about half the amount stated in the journal alluded to—viz., £300 per annum.

E. T., Cantab.—Yes, the Dr. Brady, M.P., alluded to by our correspondent, died in 1700. He was chosen representative for the University of Cambridge in that Parliament which met at Oxford. Consult "Hutchinson's Biography." The present Dr. Brady represents Leitrim, and has considerable property in Ely, Cambridgeshire.

A Caution.—Professional men and others are cautioned against a limping, farmer-like man, dressed in a black coat, drab vest, and trousers, charged with purloining from my consulting-room a stout silver-mounted cane. Notice has been given at the Police-office, Scotland-yard.—J. K. July 17, 1864.

E. S. Sandom, Aberystwith, *A. S.*—Recollecting to have seen the observation either in Johnson's or D'Arblay's Memoirs, we have been unable to find it until this week. You will read it in the 6th vol. of the Memoirs of the latter, p. 104—viz., "I next went to the Garrick house, and after examining well I tried to find the residence of Dr. James, inventor of the admirable fever powders which have so often saved the life of, etc., etc., and others without number. But the ungrateful inhabitants knew nothing about him. I could find but one old man who remembered that he was a native of that city!—that man who has lengthened life, whose skill in physic will be long remembered, to be forgotten at Lichfield! I felt indignant." He was a correspondent and attached friend of John Hunter and Edward Jenner.

Machaon.—1800 when Charles Hawkins was "*Master*;" the title ceased in 1820 with Thompson Forster. The first "*President*" was Sir Everard Home, Bart. John Abernethy filled the office in 1820. The following members of the Council, past and present, have been elected on *two* occasions to that high post—viz., Sir Astley Cooper, Bart., in 1827 and 1836; Sir Anthony Carlisle, 1828 and 1837; Mr. H. L. Thomas, 1829 and 1838; Mr. R. Keate, 1831 and 1839; Mr. J. P. Vincent in 1832 and 1840; Mr. G. J. Guthrie was three times elected, viz., in 1833, 1841, and 1854; Mr. A. White in 1834 and 1842; Mr. J. G. Andrews in 1835 and 1843; Mr. W. Lawrence in 1846 and 1855; Mr. B. Travers in 1847 and 1856; Mr. E. Stanley in 1848 and 1857; Mr. J. H. Green in 1849 and 1858; Mr. J. M. Arnott in 1850 and 1859; Mr. J. F. South in 1851 and 1860; Mr. C. H. Hawkins in 1852 and 1861; and Mr. J. Luke in 1853 and 1862.

We are glad to see the Weekly Return of Births and Deaths in Dublin. One such extract as this will do a world of good:—

"The Registrar of No. 3 District, North City, states 'that no house drains exist in Greek-street, although a main sewer runs through it!' He adds that 'Bull-lane is a filthy alley, ill-ventilated and overcrowded;' and that 'cases of small-pox, fever, and scarlatina have occurred in the house 39, Bow-street, since January 1, 1864.'"

The Indian Army Medical Service.—We extract the following from an able article in the *Indian Athenæum and Daily News* of May 21:—

"We say nothing of the trials to the patience of some 800 commmissioned officers, who, for upwards of four years, have been building upon Sir Charles Wood's promise that the revision of the pay of rank, furlough allowances, etc., 'should be taken up in connexion with the reorganisation of the army,' a promise which has most notoriously been broken, seeing that the Army amalgamation and staff corps arrangements were disposed of more than three years ago, while to this day the Medical officers have been debarred the enjoyment of the pay of their position. It speaks strongly in favour of the forbearance of the Medical servants of the State that they have borne their grievances so long in the patient expectation of meeting with redress at the hand of the autocrat of Westminster Hotel, who has so shamefully neglected their interests. The injustice to the present members of the service, however, is having an effect which some of these days will cause the British nation bitterly to rue the day when its officials commenced to treat its Medical staff with contumely. The list of officers lately passed out of the Netley school for army service shows very clearly that the great metropolitan schools of Medicine no longer furnish candidates for a service the members of which are treated with every possible indignity. When we see the Hibernian and Caledonian elements prevailing so largely, and when we know, too, that only the lower class of students from schools of the sister provinces seek admission into the Army Medical service, we may be well assured that the department does not offer sufficient attractions for educated gentlemen to desire to enter it. Educated labour all over the world has a market value, but it seems that gentlemen of Sir C. Wood's mental calibre are rather slow in comprehending the fact. The Home authorities apparently will not see that the condition of the Medical Profession in Great Britain has so improved of late years that men will not enter a service which exiles them from home and friends, without any commensurate *quid pro quo*. Instead of meeting the difficulty fairly and honestly, the authorities of the War Office are now trying to secure a supply of Medical men, by lowering the standard of Professional qualifications, and by allowing candidates to come forward up to the age of thirty instead of twenty-four. It is no doubt very considerate of them to offer an opening in life for men who have endeavoured to live by civil practice at home, but who have failed in carrying out this laudable desire; but whether the soldier in his hour of need will appreciate the efforts of his superiors to palm off Practitioners of this class—the failures of civil life—upon him in lieu of highly educated gentlemen is another matter.

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"But leaving the consideration of the probable future effects of the present short-sighted policy of the War Office in regard to the officers of the Medical Department, we may remark that nothing can excuse the shameful apathy of Sir C. Wood in neglecting to do justice to those already suffering the penalty of official mismanagement. We have pointed out on a former occasion that the more pressing of the evils under which the Medical service groans might have been remedied four years ago as easily as now, without a Royal Warrant or any communication with the Horse Guards. We allude to the bestowal of *pay of rank* in India, as in the Medical service in all other parts of Her Majesty's dominions. This might have been, and still may be, remedied by Sir Charles Wood himself with a stroke of the pen. The new arrangements he speaks of, for aught we know, may be liberal, but they can never compensate men who for upwards of four years have been defrauded of their dues. Delay in settling matters of this kind cannot but be ruinous to the welfare of the service."

Medical Graduates and the College of Physicians.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—It is a matter of much surprise to me that the Medical graduates are not bestirring themselves with regard to the *ad eundem* admission to the College of Physicians: they are, to say the least, as well deserving of the honour as the licentiates of the Apothecaries' Company, and I think the College would be acting in an unfair and partial manner if such are excluded.

Let all Practitioners, whether licentiates of the Apothecaries' Company or not, who are legally qualified to practise Medicine, Surgery, and Midwifery, have the option of becoming licentiates of the Royal College of Physicians on the payment of a moderate fee. Let this be done or nothing.

Begging that you will have the goodness to insert this letter in your journal,

I am, &c.

July 19. M.D., but not L.S.A.

Army Medical Department.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I am one of those who would fain believe that the Director-General is sincerely desirous to improve the condition of the Army Medical Department, and rectify the mistakes of his predecessor. Nevertheless, I think it would have been more creditable had he *proprio motu* discontinued the practice of imposing fines for passing objectionable recruits, and his officers would have honoured their chief had he respectfully tendered his resignation rather than sanction the infringement of that provision of the Warrant which regulates the issue of forage allowance in relation to relative rank.

Surely the attendance of Medical officers at executions and in branding deserters is a relic of the dark ages, and might be safely discontinued without injury to the public service.

But the certainty of promotion to the rank of Surgeon after a definite and limited period of service, and advancement to the administrative grade by seniority, *quamdiu se bene gserint*, are unquestionably the measures most conducive to the alleviation of discontent in the Department, and to the acquisition of an adequate supply of qualified candidates.

The extrusion of Surgeons at the age of 55 when able and willing to serve is very generally condemned, as alike injurious to the individual and to the service, and retirement at 20 years has many advocates.

I am, &c. A Regimental Surgeon.

P.S.—A warrant including the foregoing recommendations, if published during the present month, would favourably influence the August examination.

Professional Remuneration.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I read with pleasure your *resumé* of Dr. Herpin's paper on this subject, and the letter from your Derby correspondent (July 2) induces me to ask your insertion of the following remarks on the same. I entirely agree to the principle of annual contracts, and can adduce the experience of many years in its favour. No difficulty was found in determining the amount to be paid; in my own case it was determined by a friendly talk over the past average sickness, the distance from the patient's residence, the frequency of visits required, even when there was no special disease to be treated, the (of course) social position of the family; confinements were paid extra. I have mentioned the matter since I have come to reside here, but both by Professional brethren and others the idea has been looked upon as impracticable. This way of viewing it arises, I must believe, simply from its strangeness; and, so far as I can yet learn, there need be no real difficulty in the way. As to that feature of Dr. Herpin's—prepayments—I would certainly neither expect it nor stipulate for it. Let the payments be made quarterly or half-yearly, and, keeping in view this truth, that business principles need not be violated even in Professional matters, all just security on behalf of both sides may be safely preserved. That patients may occasionally, under this arrangement, exact attendance beyond what is really necessary is very possible; but even this, which I take to be the strongest objection to the system, would be found, by-and-by, to disappear, and that from the very same reason that operates at present—the reputation of the Medical man

for attention to his patients. I am not desirous of blinking the converse of this supposition, that in any given case he has no direct pecuniary motive urging him to the full performance of his duty. I believe that, practically, this would not be found to exist. He must be fully sensible of so many reasons acting upon him, though indirectly it may be, that experience would not confirm the supposition above adverted to. I should read with pleasure any views adverse to the system now advocated, and I am confident that such views could be shown to be untenable either as hypothesis or practice.

I do not enter into any detail of the advantages of the system now recommended, because I am unwilling to intrude so much upon your space; but should a more complete discussion be entered into, I should gladly give the results of my own (eighteen years) experience of it.

I am, &c.

Hanley, July, 1864. J. J.

Griffin Testimonial Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The following subscriptions have been further received on behalf of the above fund:—

Dr. Burchell, Shoreditch, 10s. 6d.; Dr. G. W. H. Coward, Shoreditch, 10s. 6d.; Dr. M. Greenwood, Shoreditch, 10s. 6d.; G. Pound, Esq., Hartley, Witney, £1 1s.; J. R. Gibson, Esq., Holborn, £2 2s.; Dr. A. Brown, Weymouth, £1 1s.; Dr. M. Coucher, Weymouth, £1 1s.; W. Fowler, Esq., Weymouth, £1 1s.; Messrs. Fox and Rhodes, Weymouth, £1 1s.; Dr. J. Lithgow, Weymouth, £1 1s.; Dr. J. Moorhead, Weymouth, £1 1s.; H. Nathan, Esq., Weymouth, £1 1s; Dr. W. Smith, Weymouth, £1 1s.; Dr. H. Tizard, Weymouth, £1 1s.; Dr. T. Parker, Abbotsbury, £1 1s.; J. W. Pridham, Esq., Broadway, £1 1s.; Dr. U. P. Brodribb, Portland, £1 1s.; Dr. T. N. Nicolas, Portland, £1 1s.; Dr. F. J. Brown,, Rochester, £1 1s.; J. Kenworthy, Esq., Oldham, 10s.; R. T. Morris. Esq., Wigan, £1 1s.; J. E. Beckinsale, Isle of Wight, £1; C. A. M., 10s, Amount previously announced, £16 18s.; Received at "Lancet" office, £2 18s. Erratum, July 9, *read* "J. Clarke, Esq., Shoreditch, £1 1s.," *instead of* "£1."

I am, &c.

Robert Fowler, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, July 20.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Acting on behalf of the gentlemen whose names are subjoined, I have had much pleasure in forwarding Dr. Fowler a cheque for £13 13s. as a contribution to the above fund.

Resident, as we are, in Weymouth and its vicinity, and, therefore, the better able to appreciate not only the incalculable amount of labour entailed upon our *confrère*, Mr. Griffin, by the collecting of facts and working of figures in support of the cause of Poor-law Medical Reform, but also the pure unselfish motives which have inspired him throughout the arduous struggle in which he has so long been engaged, we gladly avail ourselves of this opportunity to unite with the Profession in paying him a well-merited tribute of respect for the ability, energy, and zeal with which he has invariably advocated this important question; and, though it is to be regretted his efforts have not as yet met with that success they have so eminently deserved, still it must be admitted that the concessions recommended in the report of the select committee are mainly due to the persevering advocacy of our indefatigable townsman.

Impressed by these feelings, and convinced that Mr. Griffin by his disinterested, self-sacrificing labours, extended over a period of nearly ten years, has done honour to our calling, we trust that not only the Poor-law Medical officers, but our brethren generally, will display such *esprit de corps* on this occasion as to demonstrate that as a Profession we are capable of appreciating such noble Herculean efforts made on behalf of suffering humanity. In the name of the following contributors to the fund, I beg to subscribe myself,

Your obedient servant,

Weymouth, July 18. J. Moorhead, M.D.

	£	s.	d.		£	s.	d.
A. Brown, M.D., Weymouth	1	1	0	T. Parker, M.D. Abbotsbury	1	1	0
M. Coucher, M.D., do. . .	1	1	0	J. W. Pridham, Esq., Broadway.	1	1	0
W. Fowler, Esq., do. . .	1	1	0	U. P. Brodribb, M.D., Portland	1	1	0
Messrs. Fox & Rhodes, do.	1	1	0	T. N. Nicholas, M.D. do. .	1	1	0
J. Lithgow, M.D., do. . .	1	1	0				
J. Moorhead, M.D., do. .	1	1	0				
H. Nathan, Esq., do. . .	1	1	0				
W. Smith, M.D., do. . .	1	1	0		13	13	0
H. Tizard, M.D., Weymouth	1	1	0				

Spirit Rapping.

We have received the following circular, and publish it as a *bonne bouche* for our readers:—

"Spirit-Power Institute,

"*Established February* 25, 1864.

"A great change is passing in the minds of thousands of persons respecting the possibility of obtaining satisfactory proof that their deceased relatives still live and love. Their affections yearn for evidence. Those who have frequently witnessed the phenomena of spirit-power produced by unseen, living, intelligent beings, have on every hand been called upon and earnestly entreated to produce similar evidences. This in many, very many, instances, they have not been able to effect, because the phenomena are not produced by the will of man; and there not being a *centre* to receive and distribute the knowledge of events transpiring around them, much mental pleasure has been lost. It is also found that the principle of spirit life and action is denied by many; and the press has been the ready instrument to distribute incorrect statements, and harsh, unseemly sentences, against those who affirm that spirits, good and evil, live and act for and against man.

"The Spirit-Power Institute has been established to defend the principle of spirit action on substances animate and inanimate; to cluster together the witnesses, and to encourage the formation of spirit-power circles.

"Freely the Council have received, freely they give. They neither give nor receive salaries. The unavoidable expenses for printing, postage, etc., they will receive in due course through the channels hereinafter detailed.

"The test for candidates for admission as members of the Institute is:—

"'*I believe that good and evil spirits can and do communicate with man.*'

"The objects and plans of the Institute are as follows:—

"*Objects*:—1st. To defend, by means of written articles in the press, and by oral declarations on the platform and elsewhere, the cardinal fact that unseen, intelligent, spiritual beings, are ever near, and frequently acting on man, physically and mentally, for good or for evil, as certainly as unseen and unperceived electricity acts on the human body.

"2nd. To uphold:—That man dies not when his visible body is unfit to carry on its usual mechanism; but is separated therefrom, and continues to live possessed of memory, mind, and will.

"3rd. To uphold:—That man in his continued life has the power to revisit his friends, and minister to them under established spiritual laws as we in the physical body do under established physical laws.

"4th. To uphold:—That the spiritual laws are in the course of unfolding by means of the phenomena of spirit action on mind and visible substances, as truly and as effectively as the physical laws are in the present day unfolding under an attentive examination of physical phenomena.

"5th. To assist, by means at the disposal of the Institute, all movements having the foregoing objects in view.

"*Plans*:—6th. To centralise the operations of spiritualists by enrolling as members all persons accepted by the Council of the Institute who agree to the 'test.'

"7th. That the Council consist of not more than three persons elected by ballot from the most active and leading spiritualists in each of the ten postal districts of the metropolis, who would by the members of each district be acknowledged as its representatives.

"8th. To collect evidences of the action of spiritual beings on substances animate and inanimate that have recently taken place in each postal district, and narrate them orally or by written statements at the meetings of the Council.

"9th. To circulate a knowledge of facts at meetings, public and private, by means of the representatives in the several districts, and by the press.

"10th. To encourage the formation of spirit-power circles in each postal district by means of district committees, and throughout the whole empire by the more direct action of the Council.

"11th. To appoint visiting committees from the Institute to accept invitations to attend district circles.

"12th. To collect and register the names of mediums, public and private, who are willing to co-operate with the Institute.

"As to financial details, the Council have to state that no entrance fee is charged for membership. If the Institute is a useful auxiliary for the development of Divine power, *that* power will influence the holders of wealth to yield heartily the funds to carry on the operations of the Spirit-Power Institute.

"Those friends wishing to become members of the Institute, or having communications for the Council, may forward their names or communications under envelope directed to the Chairman, 15, Basinghall-street, E.C., or Enmore-park, S. Norwood, till June 25, 1864.

"Jno. Jones, Chairman.

"Henry Bielfeld, Hon. Sec."

COMMUNICATIONS have been received from—

M.D.; Dr. Baesjou; A. Carnfield; Dr. Wilmot; W. H. Folker, Esq.; Dr. Moorhead; A Regimental Surgeon; The Faculty of Physicians and Surgeons, Glasgow; J. Peeke Richards; Dr. Wm. Roe; Mr. J. Knaggs; C. W. Finney; J. B. W.; D. O'Brien, Esq.; Apothecaries' Hall; Dr. T. Downie; Dr. J. Fayrer, Calcutta; Dr. James Young; Royal College of Physicians, London; Dr. C. R. Bree.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 16, 1864.

BIRTHS.

Births of Boys, 955; Girls, 919; Total, 1874.
Average of 10 corresponding weeks, 1854-63, 1677·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	667	633	1300
Average of the ten years 1854-63	572·1	530·1	1102·2
Average corrected to increased population . .	..	..	1212
Deaths of people above 90	..	1	1

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West . .	463,388	2	8	9	1	5	4	20
North . .	618,210	4	5	11	4	4	13	20
Central . .	378,058	..	18	10	..	4	10	11
East . .	571,158	1	38	20	1	7	16	28
South . .	773,175	7	12	8	4	5	24	18
Total . .	2,803,989	14	81	58	10	25	67	97

APPOINTMENTS FOR THE WEEK.

July 23. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

25. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

26. *Tuesday*.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

27. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.

28. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

29. *Friday*.

Operations, Westminster Ophthalmic, 1½ p.m.

SAVORY & MOORE,

Chemists to Her Majesty, H.R.H. the Prince of Wales, and His Majesty the King of the Belgians.

PRIZE MEDAL, INTERNATIONAL EXHIBITION, 1862,

"For Excellence of Manufacture of Medicine Chests, and for an Ingenious Method of Fitting Military Panniers."

ATROPISED & CALABARISED GELATINE, as Prepared for Mr. ERNEST HART.

CAUSTIC POINTS, Diluted with NITRATE of POTASH, in Glass Tubes, for OPHTHALMIC USE.

THE IMPROVED EYE DOUCHE

HAS THE FOLLOWING IMPORTANT ADVANTAGES OVER ALL OTHERS:—

It is used with the greatest ease with one hand only.
Is readily adjusted to the eye in every position.
Any quantity of fluid can be used, and no Reservoir required.
Is free from the complications and derangements liable to the improperly-called double-action Syringes, fitted with air-chambers and valves.

"Most useful in many affections of the eyes."—THE LANCET.

MANUFACTURERS OF

GRANULAR EFFERVESCENT PREPARATIONS.

Introduced by SAVORY & MOORE.

Granular Effervescent
,, Citrate of Iron and Quinine.
,, Citrate of Quinine.
,, Citrate of Potash.
,, Ammonio-Citrate of Iron.
,, Citrate of Lithia.
,, Carbonate of Lithia.
,, Salts of Vichy.
,, Seltzer, Carlsbad,
And other Mineral Waters.

Granular Effervescent
,, Citrate of Magnesia.
,, Citro-Tartrate of Soda.
,, Iodide of Iron.
,, Bromide of Ammonium.
Granulated Gregory's Powder.
,, Cubebs.
,, Dr. Belloc's Charcoal.
,, Ergot.
&c. &c. &c.

DR. HARLEY'S CAPSULES OF PURIFIED PIG'S BILE.

Cod-liver Oil with Quinine, Cod-liver Oil with Iodide of Iron, Hypophosphite of Iron and Quinine Syrup, &c., &c. Essence of Sumbul. Datura Tatula (*not Datura Stramonium*), for Asthma. Sarracenia Purpurea, for Small-pox. Liquor Bismuth, *Schacht.* Solution Magnetic Phosphate of Iron, *Lightfoot;* &c. &c.

143, New Bond-street; 1, Lancaster-terrace, Hyde-park, London.

Testimonials from the Nobility.

TIDMAN'S SEA SALT

FOR PRODUCING

A REAL SEA BATH IN YOUR OWN ROOM!

The urgent want of a preparation which should be REALLY A SUBSTITUTE FOR SEA BATHING, and which should produce, when mixed with ordinary water, a fluid possessing all the important properties of Sea Water, induces the Proprietors to submit to the notice of the Profession their SEA SALT.

In cases of Muscular Swellings, Sprains, Weak Ankles, &c., &c., the greatest benefit is frequently obtained by its daily application in solution. For weakly infants it is admirable.

The Proprietors request attention to the fact that the Salt is not chemically manufactured, but is actually evaporated from the water of the ocean, and therefore contains the constituents of the oceanic element in the most concentrated form possible.

REPORT BY DR. HASSALL,

"74, *Wimpole-street, Cavendish-square, April 3rd,* 1862.

"I have made a careful quantitative analysis of Tidman's Sea Salt. I find that it contains the various saline substances characteristic of sea water.

"Added to fresh water in the proportion of about 3 per cent., or 5 ounces to the gallon, a mixture is obtained having the specific gravity of sea water—namely, 1·026, and very closely resembling it in its composition and properties.

"Tidman's Sea Salt is, therefore, a valuable adjunct to the bath, and a useful remedial agent in cases where Sea Bathing is unattainable, being very superior to the Rock and other Salts commonly used.

"ARTHUR HILL HASSALL, M.D. Lond.,
"Analyst of THE LANCET Sanitary Commission; Author of 'Food and its Adulterations' 'Adulterations Detected;' and other works."

Sold by the principal Chemists in bags containing 7 lb., 14 lb., 28 lb., 56 lb., and 1 cwt.; or forwarded direct from the Depôt on receipt of Post-office Order, payable at the Bishopsgate Office; ½ cwt., 8s.; 1 cwt., 16s.

Sole Proprietors, TIDMAN & SON, Chemists, 10, Wormwood-street, London, E.C.

ORIGINAL LECTURES.

THREE CLINICAL LECTURES ON IRIDECTOMY AND GLAUCOMA.

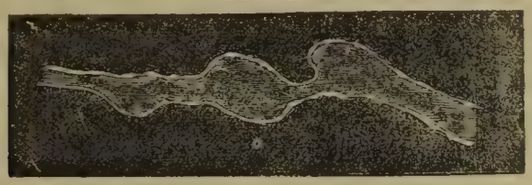
By T. WHARTON JONES, F.R.S.,
Professor of Ophthalmic Medicine and Surgery in University College, and Ophthalmic Surgeon to the Hospital.

Lecture II., delivered March 14.

Gentlemen,—At my lecture last Monday I stated that great venous congestion appears to be the fundamental morbid condition of the eye in glaucoma, the retina and choroid being especially affected. We saw represented in Liebreich's ophthalmoscopical figures the arteries of the retina constricted and pale, whilst the veins are very turgid and dark. That there is a similar condition of vessels in the white of the eye, I stated to you, is evident; for while the rectal veins are turgid and tortuous, corresponding arteries are scarcely to be seen.

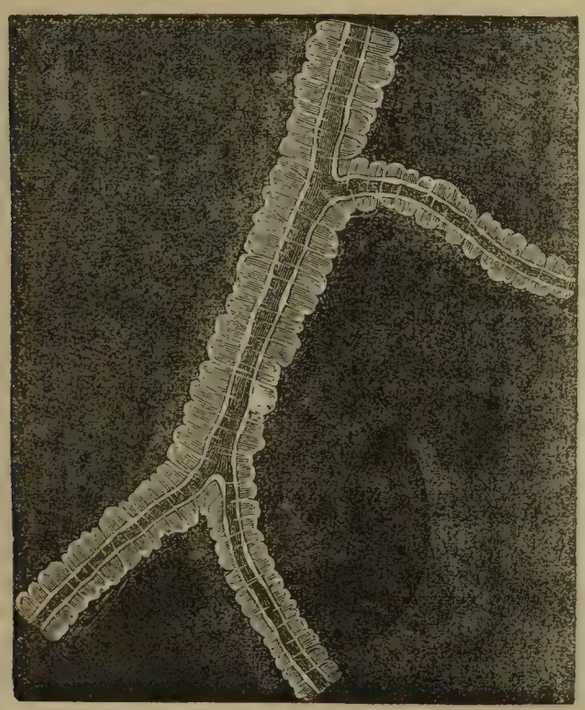
On subjecting the retina of a glaucomatous eye to microscopical examination, I have found the radicles of the veins with varicose dilatations, or pouches, like what is represented in this figure:—

Fig. 1.



The capillaries have been said to be varicose, but I did not find them so, and I do not remember, in the course of all my researches into the state of the bloodvessels in inflammation, to have found anything you could call a varicose condition of the capillaries. Constricted arteries appear as is represented in this drawing (Fig. 2), with their walls much thickened from

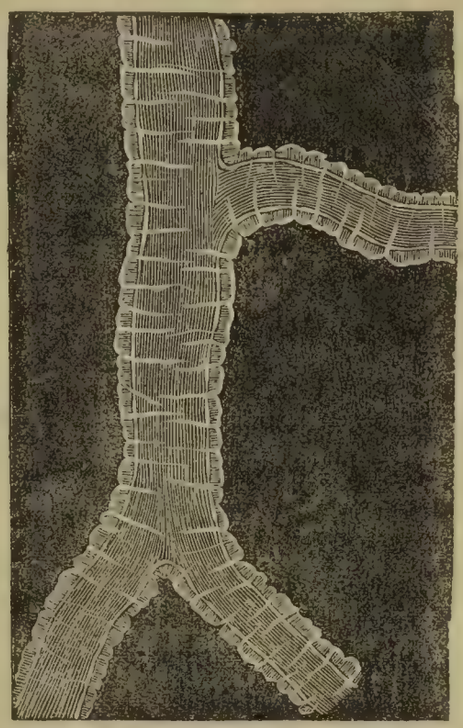
Fig. 2.



contraction of their circular muscular fibres. This thickening of the walls of the arteries must not, however, be called hypertrophy. In the web of the bat's wing or frog's foot under the microscope, you see the thickening of the walls of the artery take place when the calibre of the vessel becomes constricted by contraction of the circular muscular fibres; and, on the other hand, you see it superseded by thinning, when the calibre of the artery becomes widened by relaxation of the circular muscular fibres (Fig. 3).

The varicose state of the venous radicle, represented in the drawing which I showed you (Fig. 1) I saw take place in the mesentery of the living mouse, under the microscope, by the walls of the vessel here and there becoming much constricted and here and there much dilated. This was towards the end of the observation. The corresponding arteries were constricted, except where their last ramifications opened into the capillaries. Here the flow of blood in them was retrograde and sluggish. In the varicose venous radicles there was congestion of red corpuscles.

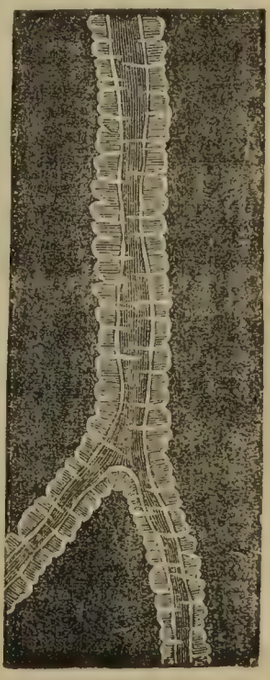
Fig. 3.



The observation to which I refer illustrates the relation between constriction of the arteries and congestion of the veins. An artery becoming constricted, the blood is propelled through it with diminished *vis a tergo*. In consequence of this, the corpuscles are seen gradually to accumulate in the capillaries and venous radicles to which the artery leads, and thus congestion of blood-corpuscles is established. In a case of this kind I have seen a small incision at the place by emptying the distended vessels, relieve the congestion of the surrounding parts. To this observation, which I first made on the tail of the tadpole, under the microscope, many years ago, I shall have occasion to refer in my next Lecture.

Seeing that constriction of the small arteries of a part causes congestion of the capillaries and venous radicles to which they lead, and seeing that the fundamental morbid condition of the eye in glaucoma is great venous congestion, with constriction of the small arteries, we can understand how it is that belladonna or atropia applied to the eye in glaucoma aggravates the symptoms.

Fig. 4.



The action of belladonna on the small arteries of a part to which it is applied is, as I have over and over again explained, to excite the circular muscular fibres composing their middle coat to contraction, and, consequently, to produce constriction of their calibre (Fig. 4). It is on the same principle, as I have also explained, I may here remark, that belladonna causes dilatation of the pupil. It excites the radiating muscular fibres of the iris to contraction, they being like the circular muscular fibres of the arteries acted on through the sympathetic nerves. The circular muscular fibres of the iris are under the control of the nerve of the third pair, and are not excited to contract by belladonna. They are, however, excited to contract by the Calabar bean, as you know. It has been fancied that belladonna acts by paralysing the circular muscular fibres of the iris, and so allowing the uncontrolled action of the radiating to come into play, but there is no good foundation for such an opinion.

To return to the injurious action of belladonna in glaucoma. Belladonna, by increasing the constriction of the arteries of the eye, determines an increase of the congestion in the veins.

When the glaucomatous state of the eye is not much developed, the eye slowly recovers from the injurious operation of the belladonna. This may not, however, prove to be the case in an advanced stage of the disease. In a stage in which the sight is already much deteriorated, a single application of belladonna to the eye is likely to deteriorate it still more, and that irrecoverably, to the great horror and distress of the patient and his friends and to the discredit of the doctor. Be cautious, therefore, of applying belladonna or atropia to the eye in glaucoma. A late venerable and esteemed friend of mine used to tell me, in disparagement of the application of belladonna to the eye, of the case of a distinguished author whose sight—it must have been but a glimmer of sight—was destroyed by a single application of belladonna for a supposed cataract. The case, I have no doubt, was one of glaucoma in an advanced stage, and the application of the belladonna acted merely like the last feather on the overladen camel's back.

To resume our theme from which these observations on the action of belladonna in glaucoma have been a digression. The venous congestion of the choroid and retina in glaucoma, as we have seen, causes some degree of intra-ocular distension. And as an effect of the continuance of this congestion there supervenes an increase of the fluid of the cells of the vitreous body, which occasions a corresponding increase of the intra-ocular distension.

Whilst in anterior internal inflammations of the eyeball, in which evacuation of the aqueous humour is often so beneficial, the intraocular distension has its seat especially in the anterior segment, as may be seen by the prominence of the cornea and depth of the aqueous chambers; here the intra-ocular distension has its seat chiefly in the posterior segment.

One effect of the distension in the posterior segment of the eyeball is seen to be that the lens and iris are pressed forward, and the aqueous chambers thus diminished in depth. Another effect of the intraocular distension implicating the posterior segment appears to be the excavation of the *papilla optica* as seen with the opthalmoscope—an effect the possibility of which may be conceived if we call to mind that the optic nerve enclosed in its neurilemma lies within its fibrous duro-matral sheath (which is continuous with the sclerotica) to a certain extent free, like a viscus in a serous cavity; for such a connexion could allow of the nerve being slid slightly back into the sheath by the long-continued intraocular pressure bearing on the lamina cribosa. Some degree of atrophy of the optic nerve appears also to have a share in the production of the excavation at its entrance. Perhaps, also, on the other hand, an elevation of the retina, in the manner of chemosis, by the congested and thickened choroid.

In the earlier stages of glaucoma the sight varies, being sometimes better and sometimes worse. The improvement of sight occurs in fine weather, after rest of the eyes and when the digestion is good and bowels free. These and other similarly favourable conditions, we can understand, promote diminution of the intraocular congestion, and thus determine a corresponding relief of the pressure on the retina. The deterioration of sight, on the contrary, occurs under the influence of opposite conditions, and especially mental depression, whereby the intraocular congestion is increased, and the pressure on the retina correspondingly aggravated.

In a more advanced stage, when the retina has suffered in its integrity, any occasional diminution of the intraocular congestion affords but small amelioration.

Photopsy, or the appearance of luminous spectra before the eyes, is a common symptom in glaucoma. It arises from pressure on the retina by the congested choroid. Such spectra may continue to present themselves even after sight is lost. From seeing them the patient is apt to flatter himself with the delusive hope that sight is still in the eye, and may yet be restored.

The hardness of the eyeball in glaucoma has appeared to me to be owing sometimes not alone to introcular distension, but also to extraocular pressure arising from a condensation and shrinking, with loss of elasticity, of the tissue of the sclerotica. This view, I find from the French translation of my work on "Ophthalmic Medicine and Surgery," has also suggested itself to M. Cusco, who designates this extraocular pressure *concentric*, whilst to the intraocular distension he gives the name of *excentric*.

I have said that arthritic posterior internal ophthalmia is identical with what is named acute glaucoma.

In its typical form glaucoma is a chronic affection, and presents itself in various degrees of development; from the case in which the patient's attention is drawn to his eyes only by experiencing an occasional dimness of sight, by seeing luminous spectra, on stooping perhaps, more readily than usual, and by a feeling of fulness in the globe;—from the case in which, if the patient be led by the subjective symptoms I have enumerated, to take advice on his case, the Medical man, on examination, will find the eyeball unnaturally hard to the touch; the sclerotica dark-looking; the veins on the white of the eye I have before spoken of, turgid and tortuous, the iris inclined towards the cornea and behind the rather dilated and sluggish or immovable pupil, the characteristic greenish appearance as if of opacity. From such a case to the case in which the sight is very much impaired or altogether lost,—in which luminous spectra may, notwithstanding, still be seen—in which there is pain in the eyeball and around the orbit—in which, behind the much and irregularly dilated pupil the Medical man sees, on examination, the glaucomatous opaque appearance strongly marked, if there be not actual glaucomatous cataract—in which the tissue of the sclerotica, besides being dark and dirty looking, presents here and there a condensed and whitish aspect—in which the turgid veins are unusually large and tortuous—in which the iris itself is pervaded with tortuous veins, though properly speaking not inflamed—in which the eyeball is of stony hardness—in which the cornea is dim and rough, perhaps, with its epithelium occasionally rising up in the form of large phlyctenulæ—in which, lastly, sclerotic staphyloma presents itself, perhaps, in some part of the front of the eyeball.

In the course of the disease, intraocular hæmorrhage may occur. The extravasated blood may be in the substance or on the surface of the retina, and may extend into the vitreous body. In this ophthalmoscopic figure of Liebreich, which I show you, you see blood filling the excavation of the papilla optica and extending into the vitreous body. Sometimes blood shows itself in the aqueous chambers, or in the interstices of the cornea.

The various organic alterations in the eye, with the corresponding subjective symptoms, in chronic glaucoma, which I have now recapitulated, take place more or less gradually; and it may be, perhaps, only after many months that the extreme stage of development is attained. The acute form of glaucoma, on the contrary, is of sudden invasion and rapid development, though, be it remembered, that the affected eye may not have been for some time previously altogether sound, nor the patient's general condition satisfactory.

At the commencement of an attack of arthritic posterior internal ophthalmia or acute glaucoma there is often vomiting and diarrhœa; the vascular injection of the eye, both sclerotic and conjunctival, is great and of a purplish tint; there is excruciating pain all over the side of the head; the sight rapidly fails, and may perhaps be lost in a single night; the cornea is dim and rough, and the other characters of glaucoma present themselves in an exaggerated degree.

I should now direct your attention to the treatment of glaucoma by iridectomy, but as our time has expired, all that I can do to-day is to submit the patient operated on ten days ago to your examination, reserving my comments on his case until next lecture.

Iridectomy, you will remember, was performed on the right eye three months ago, on account of glaucomatous blindness, which had come on suddenly the month before, though not with acute symptoms. No improvement of sight resulted from the operation, but some irritation existing in the left eye was relieved. The sight of this eye, however, began some time after to fail rapidly, and the man came back to the Hospital at the beginning of this month, affected with arthritic posterior internal ophthalmia or acute glaucoma, with severe pain and great deterioration of sight. I performed iridectomy on it, as you saw, on Friday, the 4th.

Since the operation the inflammation has diminished, and the pain been much relieved. As to the sight, the patient thinks it is better, but we cannot yet determine what may be the degree of its improvement until the blood, which you saw was effused into the aqueous chambers in considerable quantity at the time of the operation, has been all absorbed.

THE HUNTERIAN ORATION.—Professor Partridge, F.R.S., has consented to deliver the biennial oration in memory of John Hunter in the theatre of the College of Surgeons on the 14th of February next.

COURSE OF
LECTURES
ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D.,
Professor in University College, and Assistant-Physician to University College Hospital.

Lecture V.

Hippuric Acid $C_{18}H_9NO_6$.

(Continued from page 88.)

Physiology.

Common salt plays an important part in the human organism. It is found in every animal fluid and solid, and seems to be quite indispensable to the development and growth of the body. The presence of this substance in the different fluids and tissues is not merely accidental, for it is in a state of chemical combination with the constituents of the flesh and blood. This is proved by the impossibility of separating the salt from many of them by mere washing, and by its being invariably found in their ashes.

It is highly probable that chloride of sodium takes an important share in the metamorphosis of the animal tissues by adding to the solubility of some, and preventing the decomposition of others. For example, it dissolves pure casein, assists in retaining albumen in a liquid state, and has the power of preventing the coagulation of the fibrin of the blood. While these effects may be regarded as the result of chemical action, there are others, no less important, which appear to be dependent upon its physical properties. It has, for instance, a powerful influence upon the colour of the blood, and Scherer thinks this is due to its mechanical relations. The bright and dark tinge of blood, he says, principally depends upon the form of the blood-corpuscles, when they are biconcave the blood is of a bright colour, when biconvex of a dark hue. The form of the corpuscles again depends chiefly on the endosmotic relations existing between their contents and the fluid in which they are suspended, and this is materially influenced by the amount of chloride of sodium present in the circulation.

I cannot venture entirely to endorse this view, for the simple reason with which you are all familiar—namely, that blood changes its colour when shaken with air and carbonic acid alternately, quite independent of the amount of chloride of sodium contained in it.

Although the quantity of chloride of sodium present in the system varies at different times, yet, like all the other important constituents of the frame, it obeys established laws which regulate the amount. In fact, if we examine into the source from whence the body receives its supply, we shall at once find that the quantity present in the blood must be subject to great fluctuations. The salt is very generally distributed over the earth, in the animal, vegetable, and mineral kingdoms, and, consequently, finds its way into our bodies with the food and drink. All civilised nations use salt very largely as a condiment, and some say that the amount so employed is far greater than the wants of the system demand, for they believe that the food and drink furnish the requisite quantity to the organism. There are others, again, who hold an opposite opinion, which they rest upon the fact that certain tribes in the interior of Africa willingly exchange gold-dust for an equal weight of salt, and that whole herds of animals travel miles and miles to drink at the salt springs, thus proving that the system must feel an inordinate want of that substance.

Those who take the opposite view assert that, so far from the system feeling a want of it, there are whole tribes in South America and elsewhere flourishing without even the knowledge of the existence of salt.

This mode of reasoning appears to me most unphilosophical, for each party seems entirely to overlook the source from whence the food receives its supply. Is it not the soil which furnishes the chloride of sodium to the water and to the plants, and from them to the animals we consume? Now, if the soil in a particular district be poor in that material, the water and the vegetables will contain a minimum quantity—perhaps insufficient for the wants of the human body, as well as for the wants of the herbivorous animals. We know very well that mineral substances are distributed unequally over the earth, and it is quite probable that there is plenty of salt in South America, and yet not enough in the interior of Africa; and thus it is not in the least degree surprising that the negroes in Africa should value salt more than they value gold-dust, and that the cattle, feeling an equal want, but being unacquainted with any system of barter, should travel thousands of miles to supply themselves with a substance which they cannot otherwise obtain. In civilised countries we have not the same facilities of ascertaining whether or not our food contains sufficient salt, for we always add a quantity in order to please our palates. There is one thing that makes me think the soil of this country scarcely contains sufficient, and that is, that oxen fatten better and quicker when salt is added to their food, so long as too great an excess is not given. Yet no one can doubt but that we take far more than we require, for there is always a very large amount present in the urine,—a quantity greater than could result from the elimination of the merely *effête* material; and the more salt we eat, the greater is the amount excreted by the kidneys.

When salt is injected into the blood it is rapidly eliminated from the system by the saliva, the mucous membranes, and by the kidneys, which elimination would not occur so rapidly did the system require it.

The uses of salt in the animal economy must be manifold, for, as before said, it occurs everywhere. One remarkable thing is, that while the chlorine is chiefly combined with soda in the blood and all the different fluids of the body, it is principally united with potash in the muscles.

Lehmann lately advocated the idea that salt plays a most important part in cell development, and supported the view with many ingenious arguments. That it has important uses is evident enough, but to indicate them individually is very difficult. It seems to have an influence, as already said in a previous lecture, on the excretion of urea, for where much salt is eaten an excess of urea appears in the urine. The two substances, in fact, constantly go together, for in the sweat, in the blood, in the humours of the eye, in the flesh, and in the urine they are always found together.(b)

In starvation, where no salt is taken into the system, none is found in the urine, so it seems as if the body felt an absolute want of it, and held back what it had until it received a fresh supply.

During health the amount of chloride of sodium excreted by the kidneys is always less—(Bischoff says $\frac{1}{3}$, Kaupp $\frac{1}{4}$)—than what is taken into the stomach; and this is easily enough understood, as a quantity of it is decomposed, the chlorine going to form the hydrochloric acid of the gastric juice; the soda, the glycocholate of soda of the bile. Besides this, a quantity of it must pass away with the fæces, as well as a little be lost by the sweat, and other excretions, all of which contain chloride of sodium. Then, again, in the growing animal a portion must also remain in the system to assist in building up the frame, into the composition of which it so largely enters.

The quantity of chlorine passed in the twenty-four hours' urine is variously given by different observers. Parkes, after comparing the statements of different authors, puts down the mean amount at 8·21 grammes, or 126·76 grains, in the twenty-fourhours, but I agree with him in thinking that these figures are too high; about 5 grammes, or 77·5 grains, of chlorine appears to me to be the average amount passed by Englishmen.

Pathology.

The quantity of chlorine daily excreted varies very much in disease, and in certain affections the variation is attended with such a marked change in the symptoms of the disease that the state of the one may almost be guessed at from a knowledge of the condition of the other.

In certain affections, as first pointed out by Heller, there is not only a diminution, but sometimes an absolute absence of chlorides from the urine. This is more particularly observable in inflammations with exudation, such, for example, as pneumonia. During the course of the pulmonary hepatisation the chlorides may be totally deficient for two or three days together, but no sooner does resolution occur, and the redux crepitation over the diseased part become perceptible, than they are again detectable in the urine. At first it was thought that the diminution of the chlorides

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—Ed. *Med. Times and Gaz.*

(b) Beale says that the presence of urea in the urine causes common salt, which usually crystallises in cubes, to crystallise in octohedra, and chloride of ammonium, which crystallises in octohedra, to crystallise in cubes.

in the urine during the course of pneumonia and other acute inflammatory affections might be explained on the ground of the low diet to which the patients are usually in such cases subjected. This has, however, been ascertained not to be the case. Folwarczny found that in the urine of a patient who, for the purpose of experiment, partook of an abundance of salt with his food—salted soup, salted meat, and salted water—no chlorides could be detected during the exudative stage of the disease. The absence of chlorides from the urine in inflammatory affections, therefore, is due to some other cause than their mere diminution in the ingesta, although that diminution also exerts some influence on the result. Beale made the interesting observation that in cases of pneumonia where no chlorides are to be detected in the urine, the sputa contains them in abundance.

Chlorides are occasionally absent in fevers. Parkes found them totally absent in typhus, greatly diminished in typhoid and in pyæmia, and somewhat reduced in erysipelas. In the urine now before me from a case of acute phthisis (c) they are entirely absent.

The absence of chlorides from the urine may also aid in the diagnosis of cases of heart disease. Folwarczny while studying the urine in a case of acute articular rheumatism observed one day that the chlorides suddenly disappeared, while a small quantity of albumen became detectable, and on that day an attack of pericarditis came on.

Chloride of sodium is greatly diminished in choleraic urine. When it begins to increase in a case of cholera, it is a most favourable symptom, as much or even more reliable than the increase of urea.—(Buhl, quoted by Parkes.)

It is far less common to find the chlorides increased than diminished. Ringer and Parkes found them increased from ten to twenty fold in the cold and hot stages of ague; but, although increased at these times, there was still no total increase in the twenty-four hours' urine.

Chlorides are never found in the urine as a spontaneous deposit, in consequence of the combinations of chlorine with soda, potash, lime, and magnesia—all being exceedingly soluble salts. Hence the presence or absence of chlorides from the urine can only be ascertaained by chemical means such as those already described.

Chloride of Sodium as a Remedy.—Some have thought that certain diseases might depend on an insufficiency of chlorides in the system, and consequently that the administration of common salt might be attended with beneficial results. Dr. Cotton, who experimented with it at the Consumption Hospital in cases of phthisis(d), came to the following conclusions: 1st. From ʒj. to ʒij. gradually administered seldom produces nausea, thirst, or derangement of the digestive organs; but larger doses cause sickness and vomiting. 2nd. In some cases common salt increases the appetite and acts as a general tonic. 3rd. Its tonic influence in phthisis is equal to that of bitters. 4th. It does not appear to be deficient in the tubercular crasis, or to have any direct action on the disease when fully developed.

ORIGINAL COMMUNICATIONS.

ON THE TREATMENT OF DELIRIUM TREMENS, AND OF DELIRIUM IN FEVERS.

By THOMAS LAYCOCK, M.D.,

Professor of the Practice of Medicine and Clinical Medicine; and Lecturer on Medical Psychology and Mental Diseases in the University of Edinburgh.

My attention has been called to a book lately published by Dr. Handfield Jones, in which he discusses the treatment of delirium tremens, and of the delirium of fevers, with special reference to the facts and conclusions I made public in the *Edinburgh Medical Journal* for November, 1862 ("Practical Notes on Diagnosis, Prognosis, and Treatment in Cases of Delirium Tremens"). Dr. Handfield Jones, in honouring me with a notice, has, however, made me responsible for statements and principles of treatment which I do not recognise; and since a paper in a journal is not usually of easy access by the Profession in general, I trust he will pardon me if I indicate as briefly and clearly as possible what I think he has erroneously attributed to me, and what I hold.

1. Dr. H. Jones makes it appear that I recommend the "expectant" method of treatment, in the sense of a "do nothing" method. This, I submit, is erroneous. I open the paper in question with this remark (I underscore noticeable words):—"The treatment of delirium tremens is still so much a matter of discussion, that I think it will be useful to examine into the ascertained effects of treatment and point out *what help a more careful diagnosis and prognosis may afford the Practitioner.* Four years ago (*Edin. Med. Journal*, Oct., 1858) I endeavoured to show how successful the *expectant and rational* method of treatment is, *when compared with that in which opium and stimulants are freely administered.* . . . . The obvious conclusion from these results is, that the mortality from delirium tremens under a *rational and expectant treatment*, from which the *free use* of opiates and stimulants is excluded, is extremely small."

What, then, I advocated was, a *rational* as well as an *expectant* method; the word expectant being used in opposition to the routine and "heroic" use of opium and stimulants, and the word rational to the empirical use. I exclude neither when there are rational or reasonable indications for their administration. Now as these indications are founded upon the diagnosis and prognosis which we are enabled to establish from the history and symptoms of each particular case, I discuss them very fully both as to the administration of opium and stimulants and as to the treatment of various exigencies by drugs. Yet Dr. H. Jones remarks "It is also, we think, to be considered that we need in the practice of medicine not only to have general rules for the management of ordinary cases, but special directions for various exigencies. Dr. Laycock is scarcely consistent with himself in allowing the use of alcoholic stimulants (4 to 6 oz. of brandy daily in one case) where there is prostration, and in admitting that in one class of cases opium and its salts have the most beneficial effect. This seems to me to concede nearly all that a judicious Practitioner, who was not prepared to adopt expectancy, would contend for."—P. 177, 178.

The inaccuracy of this criticism is easily shown. I devote a special paragraph to the administration of "alcoholic stimulants," which begins thus:—"These are available in *all asthenic forms of delirium, however caused.*" And, after showing the nature of the depression in drunkenness and delirium tremens, and distinguishing between "the blues" and "the horrors," I lay down practical rules for administering this class of remedies as follows:—"The indications, therefore, for the administration of alcoholic or *habitual* stimulants must be drawn from the then condition of the patient, just as in other diseases in which remedies of this class are useful. When food has not been taken for several days, and the hallucinations are of a frightful or distressing kind, and especially when the pulse is very quick and feeble, the first sound of the heart heard indistinctly, the tongue coated, œdematous, and flat, or indented at the edges, wine and brandy may be administered with advantage. Sometimes this state of prostration is due to the combined influence of drink and of opium or its salts, or of opium alone. In either case alcoholic stimuli may be given. The following is an example:—" I then give the details of a case of delirium tremens from laudanum and brandy, and which I observe is "an example of the most severe and troublesome type of the delirium," and that case is precisely the "one case" referred to by Dr. H. Jones, as to which he concludes "Dr. Laycock is scarcely consistent with himself." I presume Dr. H. Jones had not read the preceding paragraph with sufficient care, otherwise he could not have failed to see that the treatment could be not otherwise than consistent with the method I had laid down, and which professes to be a rational method as opposed to routine, and not a mere expectancy in the sense of doing nothing, which is also routine.

2. Again, the expectant and rational method is founded upon prognosis—that is, upon a reasoned anticipation of the probable course and termination of the disease. To render these points as clear as possible, I quote Dr. Ware, Dr. Watson, Dr. Craigie, and others, so as to show the nature of the initiatory stage and of the characteristic delirium, when and how it comes on, how long it continues, and how and when the patient recovers. Dr. Ware states that the delirium usually terminates favourably and spontaneously "at a period seldom less than sixty or more than seventy hours from the com-

(c) In this case, curiously enough, while the chlorides were absent, the urea was very greatly diminished. In a case of pneumonia in a lad, aged 19 (Hospital case), the absence of chlorides was immediately followed by an excess of uric acid; such an excess, too, that the simple addition of nitric acid to the urine produced a copious deposit of amorphous uric acid, which at first sight was mistaken for albumen. The lad had been leeched, and was taking antimony.

(d) *Med. Times and Gaz.*, May 28, 1859, p. 548.

mencement of the paroxysm." Dr. Ware says also that the stage antecedent to the delirium "continues for one or two days, and the night is then passed with only one or two short naps." From this state the patient passes on to that "of complete wakefulness and delirium;" and it is, therefore, at this point that the characteristic paroxysm of delirium begins. So that in this disease we note the primary stage and the developed stage; just as in small-pox we note the initiatory fever and the day of eruption. Now, I do not attempt to set forth the duration of the *delirium*, as Dr. Ware did; I only state the duration of the *disease* as I have observed it, and I thus remark:—

"*Medicinal Treatment.*—Since a case of delirium tremens tends, independently of active remedies, to a favourable termination in from four to fourteen days (the cases I have treated have averaged six days' duration), the great indication of medicinal treatment is to favour this tendency in *expectation* of early recovery. It is favoured by preventing, as well as by helping. . . . It is certain, however, that drugs have, and do exercise, an influence over the intensity of the symptoms, although they may not either cause sleep or shorten the duration of the disease. Of these opium and its salts, tartar emetic, digitalis, chloroform, purgatives, alcoholic and other stimulants are examples."

The *disease* being thus carefully distinguished from the *delirium* with a view to prognosis as a foundation of treatment, it is difficult to understand how Dr. H. Jones came to write the following:—"The statement which is of main importance is the assertion that the paroxysm of delirium tremens is self-limiting, ceasing, as Dr. Ware affirms, in from sixty to seventy-two hours. Dr. Laycock, indeed, extends this period considerably to from four to fourteen days (his cases averaged six). This is certainly a considerable discrepancy, the shortest period assigned by Dr. Laycock being a day longer than the longest given by Dr. Ware. It would, indeed, require a considerable faith in the spontaneous tendency of the disease to a favourable termination to allow a man to remain sleepless and raving day after day without making judicious efforts to procure sleep."—P. 175.

That this is not a haphazard statement is clear from the following comment on a case of "sthenic delirium tremens," quoted by Dr. H. Jones:—"We cannot think that an expectant treatment, involving prolonged delirium for many days (Dr. Laycock gives a limit of fourteen), would have been preferable to the above sharp and short cure."

I have nowhere written anything to warrant these statements; nor can the conclusion be reasonably drawn from any of my observations that I would recommend the Practitioner to "allow a man to remain sleepless and raving day after day without making judicious efforts to procure sleep." The whole gist of my remarks and of my experience is that we *should* make "judicious" efforts, and have faith in *them*. And as prognosis is so important an element in judging what ought to be done judiciously, I lay down the probable course and termination of the disease accordingly as the symptoms of the delirium vary, under eleven heads, indicating at the same time the diagnosis from drunkenness, mania, melancholia, and insanity.

3. The importance of careful diagnosis to a sound prognosis is obvious, and I consequently took the utmost pains, in the paper referred to, to indicate the chief points in diagnosis, whether as to causes or symptoms. I was surprised to observe, therefore, that Dr. H. Jones affirms:—"Dr. Laycock does not appear to distinguish, certainly not pointedly, the disease termed by some delirium ebrietatis from the more chronic affection attended with depression." I presume the delirium ebrietatis to which Dr. H. Jones refers is the state of being "mad-drunk," as distinguished from ordinary drunkenness, for this state is not attended with depression, and runs a much shorter course than the delirium tremens. It is, in fact, a short fit of maniacal excitement, due to drink as the immediate exciting cause, and ceases, therefore, so soon as the drunkenness ceases. The true delirium tremens differs not only in the symptoms, but in the important particular that although it may affect a man when drunk, it continues after the drink is eliminated, or, according to some, comes on when stimulants are no longer taken.

In accordance with this view, I remark:—"If the breath smells of drink, it will be expedient to await the elimination of the poison." Again—"After the direct effects of the alcoholic or other drink have passed off, the Practitioner will be able to determine the true character of the case, or, at least, in so far as they are modified by the intoxicant used." Again—"Inquiry should be made as to the habits of the patient, and the kind and amount of intoxicant taken; as to the previous treatment, especially with reference to opium and stimulants; and as to any predisposition to cerebral disorder. When the case has been thus examined as to its course and complications, and when the true character of the hallucinations, etc., is manifested *independently of the direct influence of the intoxicant drinks* or drugs, as opium or other nervines (and this is most important) the Practitioner is in a position to establish his diagnosis and prognosis." The case of "sthenic delirium tremens" already referred to, as quoted by Dr. H. Jones, illustrates the importance of this kind of diagnosis; it is as follows:—

"A publican habitually intemperate, a strong, thick-set man, was walking about his shop in a state of considerable excitement, incoherent and wild, flourishing a knife, and refusing to take any medicine. He was coaxed to take a pot of porter in which were dissolved six grains of tartar emetic. The result of this 'quietner' was that he was subdued so as to take willingly gr. iij. of opium, which put him to sleep and he awoke after six hours perfectly well."—P. 180.

This case would not have been described by me as delirium tremens. I should have said the man was drunk, or that it was a case of ebriositas or delirium ebrietatis, which would be slept off as a matter of course; but in the subject of it I recognise a kind of case in which habitual drunkenness is inducing a state of brain likely to end in homicidal or suicidal mania, and should not have reported that he was "perfectly well" when he was only sober. The chronic condition termed alcoholismus is to be diagnosed in these cases as well as the delirium.

4. Lastly, as to the essential cause of delirium tremens, I have never said that the disease was specific and dependant necessarily and exclusively on alcoholic poisoning, as some remarks of Dr. H. Jones would seem to imply. I explicitly state that "the typical form offers the pathognomonic symptoms of an acute melancholia—is exactly such a mental affection as is sometimes seen to arise in temperate persons from other causes; the chief difference being that in acute methystic melancholia, the visceral symptoms which are the result of drunken habits complicate, while in ordinary acute melancholia they are absent. In both the mental condition is the same. This fact is of so much practical importance that I think it will be well," etc., etc. Case 5 in my first paper (*Edin. Med. Journal*, October, 1858) is an example of delirium induced by fright continuing for the unusual period of six days. All who have seen cases of acute melancholia in the temperate cannot fail to recognise its resemblance to the typical delirium tremens. I must now add a few words on the delirium of fevers.

In my first paper I suggest that we are too anxious about our patients sleeping, and say that "continued sleeplessness, although highly predisponent to morbid action, does not necessarily destroy a man. . . . *It is the causal and concomitant conditions of the sleeplessness which are to be dreaded.*" As to the first statement, none with much experience will doubt it. But Dr. H. Jones observes:—

"Drs. Watson, Latham, and Grattan think very differently as regards the state of fever patients, which the former expressly compares with that of delirium tremens. They state that two or three nights spent in restless delirium are followed by the worst consequences, and that patients who pass three nights in succession in that way almost invariably die."

As Dr. H. Jones gives no references, I have not been able to examine more particularly the true bearings of this statement. I think, however, there must be some mistake. Is it that they die if treated for the delirium by opium and other narcotics? In my own experience, and it has been very considerable, I have found nothing of the kind when these were abstained from. I have before me a summary, drawn up by my friend Dr. Duckworth, Resident Physician of the clinical wards of the Edinburgh Infirmary, of fifty-one cases of fever, chiefly typhus, which I treated in the presence of my class during the last winter session, and of which only three (all females) died. One half of the cases had delirium of various degrees of intensity; one patient was actively delirious for eight days, another for five days. Two of my clinical clerks (Mr. Evans and Mr. Nankivell) had a very smart attack, and both were delirious—one for five or six nights in succession, if not more. *None of these had opium or any of its salts; none died.* I steadily refused to prescribe them. Of the three cases which terminated fatally the cause of death did not appear to be delirium; it was nothing more than the muttering kind so common in bad cases. Nay, there was hardly reason to

attribute death to the fever, as the patients were already highly predisposed to die. In one case—a young female, aged 18—the cause of death was intense capillary bronchitis; another fatal case was in the person of a woman, aged 56, an habitual drunkard, already under treatment for Bright's disease, and of broken down constitution; and a third in a woman, aged 44, exhausted by lactation, diarrhœa, and albuminuria, with diphtheritic throat. The cases which recovered were not selected cases; on the contrary, several of them presented the gravest symptoms. The mortality being less than 6 per cent. must be considered low; but I am of opinion that if I had prescribed or permitted the use of opium or its salts for the treatment of the delirium the mortality would have been doubled at least. A large experience in the epidemic typhus of 1846 convinced me thoroughly of the danger of such treatment, and I have since seen no reason to change my opinion. There are doubtless cases in which opium may be given with advantage, but wine is much more useful and much safer. Not a few do very well without any alcoholic stimulants whatever, some recover in spite of them, but there are others in which wine and opium are very dangerous, and cause death. In the young, especially students, or in-patients of a neuro-vascular diathesis, nocturnal delirium is often a prominent and very distressing symptom; but opium or its salts is to them a most dangerous drug, for if they sleep under it they are apt to pass into coma and die. Then the delirium is blamed.

Edinburgh.

CASES OF SOFTENING OF THE BRAIN AND SPINAL CORD.

By JOHN W. OGLE, M.D., F.R.C.P.,
Assistant-Physician to, and Lecturer on Medical Pathology at, St. George's Hospital.

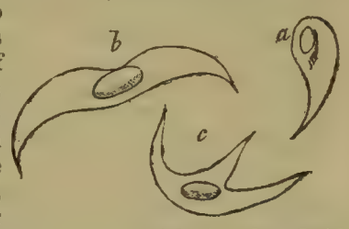
(Continued from page 560, vol. i. 1864.)

Case 26.—Charlotte A., aged 20, admitted March 8, 1854; stout, well-made, but having a more or less purulent discharge from, and pain in, the left ear. For two weeks she had had pain in the head, and had often been sick. There had been no shivering, and no cause could be assigned for her illness. There was thirst and loss of appetite, and the tongue was foul, Bowels not confined. Pulse weak and small. Face flushed and eyes heavy, and there was slight strabismus and deafness. Catamenia regular. She said she was "confused in the head," and evidently had a difficulty of comprehension; but she spoke rationally, though with preternatural *slowness*. Purgatives, with salines, and subsequently ice to the head, and leeches, were ordered. Two days after admission she became quite insensible, and on the day afterwards (the 11th) lividity, and coldness of the surface came on, with "rattling" in the throat, and she died.

Post-mortem Examination.—Cranium: Superior longitudinal sinus containing firmish blood-clot. Meningeal veins full, and cerebral convolutions flattened. Plentiful sub-arachnoïd fluid, and much turbid fluid in the lateral ventricles. Fornix and septum lucidum and the superficial parts of the corpus striatum very softened. Thorax: Lungs contained much frothy fluid. Abdomen: Kidneys streaked, with adherent capsules.(a)

Case 27.—Frederick F., aged 25, an intemperate public-house man, was admitted June 25, 1855, with loss of power in the *left* leg and arm, which was said to have followed "a fit" three days previously. For a week before the fit he had been subject to numbness down the right side. The muscles of the left arm were, on his admission, very rigid, and the limb was firmly clenched against the breast. The pupils were sluggish, but equal in size; the mouth drawn to the right side, the left eyelids only partially closeable, and the left ala nasi inactive. There was slight convergent strabismus of the left eye. Sensibility of the skin, whose temperature was higher than natural, not at all impaired. He laughed wildly and joked. Heart sounds natural. Evacuations passed involuntarily, and it was said that he was a very long time indeed before he could empty the bladder, sometimes making the effort for an entire hour. Leeches were applied to the temples, and he was blistered at the back of the neck; but after being in the Hospital three days, there was great pain in the forehead and a peculiar "flickering" movement of the muscles of the left side of the face and left eyelid, as also of the muscles of the left arm. On the next day he had two epileptic attacks, attended by foaming at the mouth, and convulsive action of the *right* arm. Subsequently, the arms remained fixed to the chest, partly resisting extension, and he lay insensible, both eyeballs rolling about, the left upwards and inwards, and the right upwards and outwards. He was cupped on the left temple, and calomel given every three hours. On the 29th he had a severe general convulsive attack, and this was followed by three or four others, leaving the right arm violently quivering. Considerable reflex movements followed on tickling of the feet. He lay in a stertorous comatose state with dyspnœa until he quietly sank and died on the 30th.

Post-mortem Examination.—All the limbs were rigid; the left eye three-quarters open, the other one closed. Cranium: Veins and sinuses of the brain very distended, and in the superior longitudinal sinus was a small, discoloured, oldish fibrinous clot. The arachnoïd was in places opaque, and much fluid was beneath it. Much turbid fluid, containing shreddy white particles, existed in the ventricles, and the corpus callosum, and inner surface of the ventricles, as also the fornix and septum, were very softened. A slight amount of yellow, opaque, and fibrinous material existed beneath the arachnoïd covering and upper part of the cerebellum. Other parts of body quite natural. (b) *Microscopical Examination* of the fluid in the ventricles showed broken-down nerve-tubes, and numbers of delicate round and oval layers, and small cell-forms containing from one to three nuclei. Some of the cells were elongated into a kind of process at one side (see Figure, *a*); others appeared as if two opposite sides had been supplied with processes (*b*); others, again, were conducted in three directions, as *c*. No compound granular corpuscles and no blood-vessels were met with in the fluid and no glomeruli in the softened walls of the ventricles, only a quantity of fatty matter.



Case 28.—John G., aged 62, admitted August 27, 1856, with loss of speech and of muscular power in the right side of the face, and in the limbs on the right side. Eight days previously he had had a fit, when he lost consciousness; on recovery the loss of power was noticed, and he was unable to articulate. He had much pain in the loins, and the urine contained a large amount of albumen with pus and "casts" of renal tubes. He was purged and wine and ammonia given. In the course of two or three weeks he was able to rise from bed, and there was a slight return of power in the arm, but the loss of speech and paralysis of the face continued. Later on after the use of counter irritation he could utter a few words. A large abscess at a late period formed at the lower part of the back, and on the 9th of October he had a convulsive attack, in which both the arms were very convulsed for an hour, followed by a semi-comatose state, having at intervals fits of excitement. There was never any vomiting or dysphagia. He went on afterwards much the same as regards paralysis, etc., until the 13th of November, when he was suddenly, whilst walking, affected by twitching of the muscles of the right side of the body and became insensible. He became very noisy for a time, and after sleep died on the 19th.

Post-mortem Examination.—Body emaciated; cachectic stains and bed sores found. Cranium: Skull rather thin. Inner surface of dura mater here and there covered with thin layers of blood-stained fibrine; and arachnoïd at vertex and base of the brain thick, and opaque in patches, with much sub-arachnoïd fluid. The upper and middle part of the *left* cerebral hemisphere was very "boggy," and of a yellowish hue; extensive softening of a large part of the *middle* portion of the same hemisphere also existed, extending from the surface internally as far as the optic thalamus and corpus striatum, the lower part of which was involved in softening. Most of this softened brain was of a grayish colour, but here and there streaks of a light pink colour existed. The fornix was softened and the lining of the outer part of the left ventricle was of a light yellow tint. Much ventricular fluid existed. *Microscopical Examination* showed the presence of a large number of "exudation corpuscles" in the softened brain. Thorax: Left ventricle of the heart thickened, and the coronary artery and mitral valve atheromatous. Lungs gorged. Abdomen: Kidneys granular and cysted, and in the left one was an abscess communicating with a large quantity of purulent

(a) "Hospital Post-mortem Book," 1854, No. 66.

(b) "Hospital Post-mortem Book," 1855, No. 201.

matter behind the kidney, passing among the lumbar and psoas muscles. No disease of the neighbouring bony structures was found; but this purulent accumulation appeared to have been connected with the extensive bed sores of the back. The supra-renal capsules were unusually large and heavy and of a bright yellow colour. (c)

Case 29.—J. B., aged 35, admitted December 2, 1857. He had had three paralytic attacks, the first of which occurred three years previously, when the *right* arm and leg were paralysed. One year previously the *left* leg had become paralysed for a few hours; and six months later the *left* upper eyelid had become partially paralysed, and the *left* leg almost powerless.

On admission the tongue was dirty; the pulse 93 per minute; the hands cold; the urine pale and full of mucus globules, but free from albumen. He was quite deaf on the *left* side, and partially so on the right side; and there was ptosis of the left upper eyelid with divergent squint of the left eye. The neck was blistered.

A week later there was "tingling" of the *right* arm and hand, and a few days later the urine, which was albuminous, was passed with difficulty, but at times involuntarily. The counter-irritation was repeated, and he was treated with iodide of potassium. Pus was passed in the urine, and he became affected by rigors and acute pain in the penis and in the *left* renal region. Semi-coma succeeded. The alvine evacuations became passed involuntarily, and he gradually sank, and died January 10.

Post-mortem Examination.—Cranium: Pia mater in places opaque. Brain "wet" with many "puncta." Posterior and outer parts of the left cerebral hemisphere softened and very vascular. Ventricles dilated, containing much fluid; and many gritty granular bodies were met with beneath the lining of the *right* one, a few only being found in the left one. Vessels at the base of the brain atheromatous. Thorax: Organs natural. Abdomen: Kidneys with their pelves enlarged and very vascular, and coated with fibrine, as was also the lining of the ureters and bladder. Prostate gland contained a small abscess. (d)

Case 30.—John K., aged 50, who had been subject to carbuncles for five or six years, was seized with a fit and found insensible May 15, 1860. On recovering he was not hemiplegic, but became so shortly afterwards. When admitted into the Hospital on the next day the left arm and leg were wanting in motor power and in the sensibility of the skin, but unaffected by rigidity. He was sensible, but could not articulate anything. The urine became retained and albuminous. He gradually became comatose, and died on the 24th.

Post-mortem Examination.—Cranium: Much fluid under the sub-arachnoïd existed, and the central part of the pons Varolii was very softened and of a cream colour. The large cerebral arteries were very atheromatous, and the basilar artery dilated and tortuous, and in one of the cerebellar arteries was a large and firm clot of dark-coloured fibrin. Thorax: Heart and appendages natural, except slight atheroma of aortic flaps. Pleural adhesions. Abdomen: Kidneys congested.(e) The case is recorded by me with fuller details in the *Transactions* of the Pathological Society, vol. vi., p. 4.

Case 31.—John C., aged 6, admitted February 13, 1861, with disease of the hip of six weeks' standing, having also had diarrhœa at intervals for six months. He much improved under the use of steel and alterative aperients, but on March 4 he was attacked with vomiting, intermittent pulse, and head-ache. The pupils became dilated, and he died on the 8th.

Post-mortem Examination.—Cranium: Much clear fluid existed in the ventricles and sub-arachnoïd spaces. Excessive softening of the fornix and septum lucidum existed. No scrofulous deposit existed within the cranium. Thorax: Caries of the lower part of the sternum existed, having scrofulous matter connected with it under the integument and in the anterior mediastinum. A large scrofulous mass also found in the lung. Abdomen: Scrofulous deposits found in the liver, kidneys mesenteric glands, and peritoneal adhesions; there was ulceration of the ileum and colon(f).

Case.—Isabella J., aged 25, admitted February 17, 1862, in a state of low, muttering delirium, and complaining of pain in the head and back. There had been swelling of one knee and a finger (evidently rheumatic fever). Febrile disturbance existed, and a systolic bruit was heard at the base of the heart, and the urine was very albuminous; strabismus of the right eye came on, and epistaxis, with a tendency to drowsiness, and fixedness of pupils. She passed into a semi-comatose state, and died on the 21st.

Post-mortem Examination.—Cranium: There was a large amount of red softening of the *right* cerebral hemisphere, with a clear line of demarcation bounding it, extending from within half an inch of the top of the hemisphere to the roof of the lateral ventricle; one or two other, but much smaller, patches of softening existed near the main one. The thick arteries in the pia mater corresponding to the softened part of the brain were plugged up by fibrinous material, and many fibrinous particles existed in the vessels at the base connected with the vertebral and carotid arteries. Thorax: Traces of old pericarditis existed, and much loose fibrine was attached to the margins of the mitral orifice. Abdomen: A fibrinous mass existed in the substance of one kidney and liver(g). The case has been related, with all details, by Dr. Dickinson in the *Transactions* of the Pathological Society, vol. xiii., p. 10.

Case 33.—Isabella B., aged 17, admitted November 19, 1862, having been ill two weeks with debility, breathlessness, pain in the chest, and latterly having been delirious, and in a state like "fever." She had twice had acute rheumatism. A systolic bruit was heard at the apex of the heart. She fell into a muttering delirium, and soon became comatose, and died five days after admission.

Post-mortem Examination.—Cranium: Brain anæmic. A portion of brain at the posterior extremity of the right cerebral hemisphere, to the extent of above an inch, and reaching almost to the surface of the brain, was so softened as to be quite diffluent. The small arterial vessels in the neighbourhood were full of fibrine, but the vessels at the base of the brain were natural. Thorax: Pericardial adhesions extensive. The lining of the left auricle of the heart was at one part vascular, and showed that fibrinous granulations had been attached. Abdomen: One kidney and the spleen contained fibrinous masses of deposit in their substance. Their blood-vessels were in a natural state(h). This case, with all details, has been related by Dr. Dickinson in the *Transactions* of the Pathological Society, vol. xiv., p. 1.

(To be continued.)

(c) See "Hospital Post-mortem Book," 1856, p. 259.

(d) See "Hospital Post-mortem Book," 1858, No. 10

(e) See "Hospital Post-mortem Book," 1860, No. 149. Also Pathological Catalogue Series, viii., No. 55.

(f) See "Hospital Post-mortem Book," 1861, No. 70

(g) See "Hospital Post-mortem Book," 1862, No. 45; also "Hospital Pathological Catalogue Series" (?).

(h) See "Hospital Post-mortem Book," 1862, p. 308.

CLINICAL NOTES AND OBSERVATIONS.

By F. A. BULLEY, F.R.C.S.,
Senior Surgeon to the Royal Berkshire Hospital, Reading.

HARD NODULATED TUMOUR OF THE TONGUE, APPARENTLY OF A CANCEROUS NATURE, WHICH DISAPPEARED UNDER THE USE OF THE GALIUM APERINUM.

Jane C., a married woman, aged 60, residing at Ramsbury, in Wiltshire, was admitted into the Hospital April 5, 1864, on account of a hard, firm, somewhat circumscribed tumour of about the size of a boy's marble flattened, imbedded in the substance of the tongue, on the right side, about an inch from its apex, which had been gradually increasing in size since she first observed it, five weeks before, when it was about as large as a hemp-seed.

The upper surface was nodulated and uneven, and the swelling generally had the appearance and feel of a scirrhous formation in the organ. It had all along been extremely painful, so much so as entirely to prevent her sleeping at night; it was exquisitely tender to the touch when handled, and latterly she had experienced a throbbing beating pain in it, which had induced her to think it was about to burst. There was no appearance of its having been caused by injury to the tongue through a decayed tooth. She had always been in the habit of living tolerably well, but had been suffering a good deal from general debility and languor for some time before the commencement of the swelling. Her countenance did not indicate any peculiar cachectic condition of the system, and there was no history of any hereditary cancerous taint in her family. The tumour had increased rather rapidly lately, and she was quite unable to masticate solid food on account of

the pain it induced, which had added much to her original weakness.

She was ordered to have strong cold beef-tea frequently during the day for diet, with a pint of porter daily, and to take the following medicine:—℞ Extract Galii aperini solidi, ʒij.; aquæ ad. ℥jss. M. ft. extract fluid. Of this extract a drachm and a half was given twice a day in a wineglassful of water.(a) She was also ordered to use the above mixture as a warm lotion to the mouth several times during the day, keeping it in the mouth for some time during each application.

A month after her admission she had completely recovered from the languor and debility under which she had previously been suffering; her face, instead of being pallid and sallow, had recovered a healthy and somewhat florid appearance, which was natural to her; the pain in the tumour had been gradually diminishing, and the tumour itself had become so much reduced in size as to be scarcely discernible to the touch, and as she was now able to take solid food without discomfort and with an appetite, she was, at the end of five weeks, discharged from the Hospital. A fortnight afterwards, having continued the remedies prescribed, she presented herself as an out-patient, when it was found that the tumour had entirely disappeared, and the tongue had recovered its natural structure and appearance.

There are, doubtless, some swellings occasionally occurring in the tongue which are of a comparatively innocent nature, and which usually give way to very simple treatment. Professor Fergusson, in his "Epitome of Surgery," speaking on this subject, remarks,—"Sometimes it is necessary to remove portions of the tongue for supposed scirrhous indurations or cancerous ulcers. Before, however, resorting to mutilations of this organ, it will be well to ascertain the effect of various local remedies and of constitutional treatment in such cases. The mucous membrane here sympathises in a remarkable manner with functional derangement of digestive organs, and often, when it may be least expected, a change of treatment will avert all cause of alarm." It might be thought that such was the case in the present instance; but there was something about the appearance of the swelling—its density and painful nature from the beginning, and its nodulated surface—which led me to believe that it must either have been a true scirrhous formation in the part, or an epithelial growth of unusual hardness (either of which might have become equally dangerous by destructive ulceration), especially as I was afterwards informed by the patient that an experienced Practitioner in the town where she lived had considered her disease to be of a malignant character, and had recommended her to apply for admission into the Cancer Hospital, for the purpose of its more effectual treatment by operation or otherwise.

The galium aperinum or cleavers has long been employed as a popular remedy in cancerous affections. Some years ago Dr. Wynn directed the attention of the Profession to the remarkable effects he had observed from its use in the treatment of some inveterate cutaneous affections which had come under his notice, and related several cases in the *Medical Times and Gazette*, which clearly showed that it was a remedy of considerable efficacy in such diseases, and more recently Dr. Ogle has published some interesting cases of epilepsy in which its employment had been followed by the most successful results. Like many other recent vegetable juices, it appears to have the power of correcting that peculiar dyscrasy of the blood which is found to prevail more or less in all cases of cancerous disease, whatever form it may assume, acting, I suppose, in the same manner as the same kind of remedy seems to act in scurvy, by altering and improving the disintegrated and broken-down condition of the blood which always accompanies that disease, and restoring it to its natural healthy state.

I have for many years past been in the habit of employing this remedy in the treatment of cancerous affections of different kinds in my Hospital practice, and have not failed to observe that in some cases it has seemed to favour the production of healthy granulations on the ulcerated surface, whilst in others complete cicatrisation has ensued, and having performed operations for the extirpation of some tumours under these favourable circumstances, I have reason to believe that in these instances the disease has not returned, at least to my knowledge, the patient having, of course, persevered in the use of the remedy for a considerable time after the operation, and although I do not consider that the remedy is capable in every case of effecting the resorption or removal of already existing cancerous deposits, I still believe, from what I have observed, that it has the power of suspending, or at least modifying, in some measure the cancerous action going on in the system, and thus placing the patient in a more favourable position for the performance of an operation for the removal of the local disease, either by the knife or the application of caustic. It appears to me to be quite contrary to reason to expect that an operation can be certainly, or even commonly successful, when performed while the cancerous action is proceeding unchecked in the system; and as, according to our present knowledge on the subject, we are not in possession of any certain means of arresting its constitutional progress, it is not surprising that the disease should so frequently return, either in the part itself, in the neighbouring glands, or in some organ at a distance predisposed by some accidental irritation to become the seat of a cancerous deposit.

That Nature occasionally exercises a power of arresting or suspending the cancerous action in the system for a very long period, and even altogether, the records of Surgery fully prove, and it is not too much to hope that sooner or later some remedy may be discovered which may be capable of imitating the operations of Nature in this respect, and that thus a class of cases hitherto deemed to be almost beyond the resources of our art, may ultimately become amenable to some rational mode of constitutional treatment.

(a) An excellent preparation of the recently expressed juice may be procured of Mr. Ayscough Thomson, the eminent pharmaceutical chemist, of Chiswell-street, Finsbury. The dose is from one to two drachms of the fluid extract in a wineglassful of water or new milk two or three times a day.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

FAVUS—TREATMENT BY EPILATION—CURE.

(Under the care of Dr. HILLIER.)

J. J., aged 10 years, an unhealthy-looking boy, with pasty look, and sallow complexion; always breathing through his mouth from chronic thickening of the nasal mucous membrane, with strumous scars on his neck. He has light hair and long eyelashes.

The affection from which he now suffers has existed three years. He never complained of itching of the head. Over the whole scalp, except round the margins, is a dry, sulphur-yellow deposit, with irregular outline, and of nearly uniform thickness, say a line or a line and a-half; the hair is matted together, and over the vertex there is an admixture of white and yellow colour. There are no patches of complete baldness visible. Slight enlargement of posterior cervical glands. Ears very dirty; no pediculi. No rash on trunk or limbs.

The crust can be removed by means of forceps, leaving a depressed, smooth, glazed, and pink surface, from which clear fluid exudes. The hairs are not many of them loosened in their sacs.

Under the microscope the hairs are not found much altered; over some are oval bodies having all the characters of sporules of Achorion Schœnleinii. The hair root-sheath is ragged, and has a granular look; there is in many hairs a sharp curve of the hair bulb upon its shaft. The dry crust from the scalp is found to be made up of epidermic cells with spores and mycelium of a fungus.

January, 1864.—The scalp is cleaned by the use of oil of tar, one ounce, with iodine, one drachm, and subsequently by iodide of sulphur ointment.

27th.—The whole scalp is now free from crusting. There are no bald patches. Most of the scalp is coloured pink, and the hair follicles are slightly prominent. Some of the hairs have lost their lustre, and look greyish and thicker than natural. There are a few spots on the head which look pale and less thickly covered with hair than other parts. Extraction of all the hairs on his head by means of a forceps is now ordered, and a lotion of the following composition, to be used freely after each operation:—Hydr. bichloridi, ℈j.; ammoniæ muriatis, ℈j.; aquæ, ʒv., misce.

April 8.—Epilation has been continued, but not very regularly. The head has been washed every other day with soft soap, and an ointment containing hydrargi nitrico-oxidum, fifteen grains to the ounce, applied. The whole scalp is now smooth and dry, with a little erythema in patches. The hairs, few of which have been allowed to grow, look glistening, tapering,

and healthy. A few stubby dark hairs are seen, and at once pulled out. Some hairs come out too easily, some have an imperfect bulb, others are surrounded by a loose, very granular epithelium. In one case distinct mycelium is seen in the epithelium of root-sheath.

May 9.—The same treatment. Head now quite smooth, but still disposed to get covered with branny scales.

June 22.—The head is now covered with fine light-coloured glossy hair. There is but little or no tendency to undue formation of cuticle, and no redness of scalp at any part. He is to present himself every fortnight for inspection, lest there should be any reappearance of disease.

FAVUS — TREATMENT BY EPILATION — GREAT IMPROVEMENT—STILL UNDER TREATMENT.

(Under the care of Dr. HILLIER.)

A. J., aged 4 years, brother of J. J. Said to have been always strong till the last six months. Has now been suffering for two years from a disease of the scalp. There are seven children in the family; they are poor and dirty, and have used the same towels, brushes, and combs. Arthur and James are the only two who have any disease of the skin. It began on his head. He once had a similar diseased patch on his shoulder, which got well of itself. He has been under treatment elsewhere, and has had the head several times cleared of crusts, but very speedily to relapse into the same state. Itching has not been a marked symptom until quite lately. There are now on the head some thick, irregularly-shaped, uneven, mortary, yellow deposits. One large mass has a circular outline, and there are several small isolated masses, with circular outline, but not umbilicated.

He came under treatment on October 16, 1863. A sulphurous acid lotion kept constantly applied. Ol. juniper pyroxylicum applied to part of the scalp previously to epilation.

October 21.—Epilation begun. An ointment containing in the ounce six grains of corrosive sublimate to be used. Internally cod liver oil and iodide of iron.

November 4.—About one-third of scalp epilated.

21st.—About half of scalp epilated; the bald portion covered with very small vesico-pustules; the rest of scalp free from crusts, and the hairs have almost a normal appearance. Sulphurous acid lotion has been kept constantly to the head. Some small erythematous furfuraceous rings on body. Omit lotion.

December 24.—About four-fifths of head cleared. A tendency to excessive formation of epidermis where the operation has been performed.

January 3.—A few distinct umbilicated favi in front of head. There is more soreness and tendency to serous exudation at the back of head. The Ol. juniperi pyroxyl. to be applied for two or three days.

27th.—Made an out-patient. There is no roughness on scalp. In one or two places the scalp is reddened. There are straggling hairs growing all over the head, which look fine and glistening. To apply iodide of sulphur, ten grains to the ounce of lard, and continue internal medicines.

February 10.—The head generally smooth; a few patches reddened, which show a tendency to excessive production of epidermis, especially around the hairs as they emerge from their follicles; some hairs still too loose in their sacs, and root-sheaths thickened; epidermic cells more granular than in health.

21st.—A few small favi appearing in left parietal region; some of the hairs thickened and broken off short; some spores detected in epidermis around the lower part of shaft of hair; the hair frequently makes a sharp curve just as it emerges from the follicle; some of the hairs, which are very opaque, have a fibrous fracture like the hairs of tinea tonsurans.

March 10.—Has been at home, where he is much neglected; some of the hairs loose; a number of red patches and dry scales; under the microscope many of the hairs are bent on themselves at an acute angle near the bulb; the epidermic cells of root-sheath very granular; here and there a spore or mycelial thread is seen in root-sheath, or in the loose epidermic scales near the commencement of hair-shaft.

April 20.—Head covered with almost healthy hair; a tendency to formation of dry scales; no fungus detected by microscope. To be kept washed with soft soap and oil.

May 12.—Some distinct favi on left temporal region.

21st.—The hair over nearly the entire head looks healthy; the scalp is in places covered with fine white scales; here and there a sulphur-coloured umbilicated favus is seen.

June 27.—The scalp has once more been epilated over its entire extent, and a lotion of bichloride of mercury, four grains to the ounce, rubbed in after each epilation. The head is now bald, smooth, and of natural colour. It is to be kept well oiled and watched. If any signs of disease show themselves, the hairs so affected will be pulled out.

Remarks by Dr. Hillier.—It is worthy of note that, out of seven children in a family, all poor and dirty, living together, only two contracted this disease, showing that, although it is a contagious malady, yet many persons are not readily susceptible of it, even though they are dirty in their habits and live badly. In the Children's Hospital, where I have had cases under treatment for many months, there has been only one case of contagion, and this was at once cured. There was a difference in the course of the two cases just reported—one being more superficial, spreading mainly in the epidermis, and not rapidly extending to the hair follicles so as to cause baldness; the other forming more distinct favi, depressed in the centre, loosening the hairs, and more rapidly inducing baldness. I have at the present time two other cases of favus under treatment, on which I hope to report in a future number. This disease is not very common in London at the present time; but within the last eighteen months I have had under my care six cases of it. This is not the affection described by Willan and Bateman as porrigo favosa, which was a form of impetigo, a pustular disease: it answers to porrigo lupinosa, and is the most striking example of parasitic disease. It is not primarily pustular.

HOSPITAL FOR SICK CHILDREN.

FAVUS—CURE.

(Under the care of Dr. HILLIER.)

J. B. D., aged $2\frac{1}{2}$ years. He has usually had good health. He is the eighth in a family of nine children, of whom five only are living. About two months before he came to the Hospital he had a small pimple on the top of his head, which soon broke out into a scab; his mother was advised to use white precipitate ointment, which removed the crust, but others very speedily formed, until his whole head was covered. On admission the child's general health appeared good. The scalp was covered with a dirty brownish-yellow material, looking like an admixture of dry and amorphous favus with dried crusts of impetigo. The smell from it resembled that of white mice. There was but little hair on the head, and this was so matted down that it could be scarcely seen. A few of the dried crusts had a sulphur-yellow tint, but were none of them cupulated. When examined by the microscope they were found to consist of epidermic cells, with numerous oval bodies insoluble in liquor potassa and ether; some detached and others adherent to each other, end to end. They had the characters of sporules of Achorion Schœnleinii; no mycelium was observed. The bulbous ends of the hair were thick and very opaque; some of them studded with clusters of sporules. About the neck and upper part of the trunk were numerous small scaly patches varying in size from a pin's head to a split pea in diameter, very much like desquamation after scarlatina.

June 1, 1863.—A lotion, containing in four parts of water one part of a saturated solution of sulphurous acid, is to be kept constantly applied to the head on lint under oil-silk.

11th.—The dry incrustation has been softened, and in great measure removed, leaving the scalp bald in patches, and of a pink colour. A few isolated yellow crusts are seen, but not cupulated; on removing them with the finger-nail, the subjacent surface is depressed and much redder than surrounding skin. When the crusts are removed the hair comes out by the roots. There is eczema behind the ears, also of the nose and upper lip. Appetite is bad.

12th.—Mixture containing quinine given; an ointment applied containing sulphur and white precipitate.

17th.—Steel wine substituted for the quinine. The scalp is cleansed of ointment and crust by benzole on lint. The sulphurous acid lotion to be freely applied, as at first. The hair under this treatment began to grow quite vigorously and without any formation of crusts or scales. In about a month he got quite well.

Ten months later I saw him, and found that he had a beautiful crop of auburn hair, quite free from disease. He was suffering at this time from strumous ophthalmia.

This case is an exception to the usual rule, inasmuch as it was cured without extracting the hairs, but by the employment of a parasiticide lotion and the administration of tonics.

ST. THOMAS'S HOSPITAL.

CASE OF TYPHOID FEVER FATAL BY HÆMORRHAGE FROM THE BOWELS.

(Under the care of Dr. PEACOCK.)

A CASE has recently occurred at St. Thomas's Hospital which affords an example of a very unusual mode of fatal termination in typhoid. The circumstances are as follow:—A female, 27 years of age, was admitted into the Hospital, under the care of Dr. Peacock, labouring under symptoms of fever, on July 2. She was reported to have been ailing for about three weeks, but seriously ill for only two days. She was then somewhat prostrated and torpid, the pulse slightly accelerated, and the tongue covered with a whity-brown fur; and a few spots, rose-coloured, elevated and distinctly typhoid, were observed on the thorax and abdomen. There was no pain or tenderness in the abdomen, and the bowels were acted upon naturally once daily. On the 4th the symptoms had progressed—she was more prostrated and torpid, the tongue was somewhat dry and brown, but still the bowels acted naturally. On the 6th, at 7 a.m., she suddenly passed from the rectum about a pint of blood, and discharges continued at intervals, so that she voided altogether about two quarts. She rapidly became collapsed, and died at 5·35 p.m.

On examination after death no disease was found in any part of the body except in the alimentary canal, and there the disease was in a very early stage. Some of the Peyerian patches at the lower part of the ileum were enlarged, with slight appearances of ulceration, and near the cœcum there were one or two very small specks of yellow slough. The solitary glands in the cœcum were some of them enlarged and beginning to ulcerate; the lower part at the small and the large intestine contained much blood, but the vessel from which it had escaped could not be detected.

Dr. Peacock remarked in reference to this case that the termination of typhoid by immediately fatal hæmorrhage was, so far as his observation extended, very unusual. Though he had seen many cases in which large losses of blood had taken place from the bowels, he had usually found such cases do well, and he had never previously met with a case in which the hæmorrhage had been immediately fatal. Curiously enough, it was mentioned that within a few days another case almost precisely similar had occurred in the Hospital in the practice of Dr. Barker.

WEST LONDON HOSPITAL.

CASE OF FRACTURE OF THE SPINE—DEATH IN FORTY HOURS—AUTOPSY.

(Under the care of Mr. WM. FAIRLIE CLARKE.)

JACOB H., single, aged 32, was admitted into the West London Hospital early on the morning of Sunday, June 12, 1864. He is a native of Germany, but for some time past he has lived at Hammersmith, and worked at a sugar refiner's in the neighbourhood. He is a tall, muscular, heavy man.

It appears that he went home about midnight on Saturday, the 11th, in a state of partial intoxication. While waiting for admittance he sat down on the wall of the area in front of his house, lost his balance, and fell backwards into the area, a distance of some twelve feet. Soon afterwards he was brought to the Hospital.

On admission he was perfectly conscious. At the back of the head he had a lacerated wound, but it only extended through the scalp. There was no fracture of the skull. He had lost all power of using his legs, and no reflex movements could be excited by tickling the soles of the feet. The abdominal and intercostal muscles were fixed. He could move his arms, though he did so languidly and with some degree of pain. Sensation was entirely gone from the toes as far upwards as a line drawn across the nipples. On the upper part of the chest and over the arms there was partial, thought not complete, sensation. Nowhere was the sensibility exalted. His skin was cold and clammy; his pupils dilated, and sensible to light; his pulse full but slow (50); his breathing quick (30), laboured, and carried on entirely with the diaphragm—neither the walls of the chest nor of the belly undergoing any movement except what was communicated to them by the action of the diaphragm. As long as he lay on his back he was easy, but when his position was changed he felt shooting pains about the shoulders and arms. When pressure was made on the lower cervical vertebræ he complained of great pain. No displacement could be detected, nor did there appear to be any unusual interval between the spinous processes. The symptoms, however, clearly indicated that the function of the cord had been arrested between the origin of the phrenic nerve and the upper part of the dorsal vertebræ.

He was put upon beef-tea diet. Five grains of calomel were given at once; and a large quantity of urine was drawn off with the catheter. During the whole of the 12th he remained in the state that has been described. There was no apparent alteration in the power of motion or sensation. Gradually, towards evening, he began to cough a little, and to spit up thick viscid mucus. As the bowels had not been relieved, the calomel was repeated, with the addition of a drop of croton oil. The catheter was passed from time to time, as occasion required. The urine was tested for sugar, but none could be detected. During the night he had some snatches of sleep.

On the morning of the 13th an enema was given, which produced a slight action of the bowels. But the patient experienced no relief. The general symptoms underwent no change. The cough became gradually more and more troublesome. The lungs seemed to be gorged, and the bronchial tubes choked with secretion. Coarse crepitation and mucous râles could be heard all over the chest. The face was dusky; the lips livid; and strength was evidently failing. He retained perfect consciousness until a few minutes before his death, which took place at 3 p.m.—forty hours after the occurrence of the accident.

At the post-mortem examination—made twenty hours after death—a transverse fracture was found running quite through the upper part of the body of the first dorsal vertebra. The spinous process of the seventh cervical vertebra was completely separated from that of the first dorsal; but the laminæ and the spinous processes themselves were uninjured. The cord appeared to be intact; the coverings were not torn in the slightest degree, and there was no evidence of inflammatory action.

BRADFORD INFIRMARY.

PARTIAL EXCISION OF THE LOWER JAW.

(Under the care of Mr. TERRY.)

ANN P., aged 27, a healthy-looking country girl, admitted into the Bradford Infirmary October 13, 1863, with a growth from the side of the lower jaw about the size of a hen's egg, apparently bony in texture, involving a portion of the jaw from the last molar tooth to the mental foramen. On examining the inside of the mouth we also found springing from the alveolus opposite the second molar tooth an irregular growth, like that of epulis. She first noticed the growth about two years before her admission, and never experienced pain, but sought admission into the Hospital simply from the deformity it produced.

October 14.—Chloroform having been given, a semilunar incision was made over the tumour, beginning about an inch in front of the lobe of the ear and continuing to the commissure of the mouth. The facial artery being divided and immediately secured, three molar and one bicuspid having been previously removed, the jaw was sawn through with a small metacarpal saw, about half an inch anterior to the angle of the jaw, and in front over the mental foramen. After the hæmorrhage had ceased, several ligatures being required, a dossil of lint was introduced between the ends of the bone. The wound was then brought together by means of several wire sutures, water dressing was applied, and the patient ordered to suck ice frequently. A section having been made of the growth which sprung from the surface of the jaw, it was found to be composed of sarcomatous tissue with a great deal of osseous deposit.

15th.—Patient doing well, lint removed, ordered beef-tea, milk, etc. The dossil of lint renewed daily, and the mouth washed out with a weak lotion of Condy's solution.

20th.—All the sutures removed, and the whole length of the wound having united, except at the point of exit of the ligatures.

November 15.—Granulations were noticed to be springing freely from both the cut ends of the bone, and the space gradually becoming diminished by new growth.

December 23.—Can masticate ordinary kinds of food. She was then made out-patient, and continued to attend monthly until June 28, 1864, when she was discharged cured. The space is so much diminished that the end of the finger can scarcely be admitted between the ends of the bone.

EXCISION OF THE KNEE-JOINT—DISEASE OF TWENTY YEARS' STANDING—RECOVERY.

(Under the care of Mr. TERRY.)

Daniel D., aged 25, admitted into the Bradford Infirmary, October 15, 1863, for disease of the knee-joint which had existed from childhood, and he had been compelled to lay up at intervals for about twenty years. At the time of his admission into the Hospital he was suffering from great pain in the joint, which was more acute at night, and wasting of the leg and thigh. There was a little enlargement of the joint, but not to any considerable extent, along with displacement of the tibia backwards, and the patella was pushed very much to the outside. On pressure there was distinct fluctuation; the limb was contracted and perfectly useless; excision was resolved upon.

30th.—Chloroform having been given, the operation was performed by making the horse-shoe shaped incision, the patella being removed, and a considerable portion of the tibia and fibula. Partial anchylosis was found in the joint, with scarcely any trace of cartilage left; the synovial membrane thickened; bone very vascular, much infiltrated with pus, with a great escape of pus from the joint. Put up in the usual manner, as recommended by Professor Fergusson, the edges brought together by wire sutures.

31st.—Pulse quick, with vomiting; wound looking well; ordered ice and soda-water.

November 1.—No tension; edges of the wound a little puffy, with great thirst; vomiting ceased.

2nd.—Very feverish; tongue moist; pulse full and frequent; knee very tense and swollen, with a little sanguineous discharge from the wound; several sutures removed.

5th.—Wound looking better; discharge healthier; tongue moist, rather red on the edge, and furred on the dorsum.

6th.—There was a great deal of erythema affecting the joint and thigh, even up to the buttocks; thigh tense, brawny, with suppression of discharge from wound; had several rigors. Ordered tincture of sesquichloride of iron to be applied freely, and twenty minims of the same, with fifteen of chloric ether, every four hours; beef-tea and brandy *ad libitum*.

8th.—Much better; no extension of erythema. Ordered a chop and port wine, eight ounces daily. Wound discharges freely.

December 27.—Incision healed; knee acquiring firmness and a good position; general health good.

January 26, 1864.—Was allowed to get up, the leg supported by a gutta-percha splint. The length of limb about an inch and a half shorter than the other; axis of the limb quite straight, and the knee-joint slightly flexed forward.

February 12.—Discharged cured; able to leave the Hospital with the aid of a crutch; can bear some weight on the limb, which is quite firm.

June 27.—Presented himself at the Hospital; able to walk several miles daily.

MEDICAL PRACTICE IN FRANCE.—Matters do not seem to be working quite satisfactorily for the Medical Profession in France any more than with ourselves. During the late session of the French Senate, petitions were presented with respect to the regulations in force concerning Medical and Pharmaceutical practice, especially as regards the restrictions placed upon the inferior order of Practitioners termed *officiers de Santé*. These were referred to the Minister of Public Instruction, who has just appointed a commission to consider and report to him upon the subject. In the list of members of the commission, thirteen in number, we observe the well-known names of Dumas, Brongniart, Denonvilliers, Tardieu, Regnault, Ehrmann, and Gintrac.

ATTEMPT AT SUICIDE BY DRINKING CHLOROFORM.—A Doctor in Medicine, 40 years of age, who, although most comfortably placed in the world, suffered from melancholy and hallucinations, in a moment of exacerbation drank off 10 grammes ($2\frac{1}{2}$ drachms) of chloroform, under the idea that it would produce speedy death. He felt an acrid sensation in the throat, and a burning at the epigastrium. Emollients were administered by the mouth and in lavements, and abundant currents of air were admitted. The stools, which were soon passed, were much impregnated with chloroform, but none of the symptoms usually met with after inspiration of chloroform were observed.—*Union Méd.*, July 23.

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Medical Times and Gazette.

SATURDAY, JULY 30.

THE INDIAN MEDICAL SERVICE BILL.

THANKS to the thunders of the *Times* and the persistent courage of Mr. Hennessy, the House of Commons has been forced to see the meaning and drift of Sir Charles Wood's Indian Medical Service Bill, and, as a necessary consequence, has rejected it. That it lived so long as it did can only be attributed to its introduction at so late a period of the Session, and just during the reaction consequent on the excitement of the late political battles. We will not do our readers the injustice of pointing out the weakness, inconsequence, and inconsistency of Sir C. Wood's arguments in support of his bill—they must have struck every one, and every one must have observed with astonishment and dismay that Minister's success in nursing his bantling so long. It is almost incredible that an English Government—a "liberal" Government, too, Heaven save the mark!—should have deliberately and publicly proposed to do away with tests of education and efficiency, and to return to a system of private patronage and nepotism. But what were the reasons or excuses offered for this deplorably retrograde movement? Truly the strangest that were ever yet proferred to cover failures of official incapacity and obstinacy,—"The Medical Service of the army was an honourable and highly popular one; it was so much sought after that we were able, by means of competitive examinations, to obtain for it almost the flower of the Medical schools. But we have altered all this—we have made the service eminently distasteful and unpopular; we have made a Medical commission an opprobrium, and now no men will take it save only such as dare not face the exposure of their ignorance and incapacity by an examination; therefore, competitive examination has failed, and we must have the power of handing over the soldier to the tender mercies of any man who can manage to squeeze through any portal of the Profession." The revelations of Dr. Parkes and his colleagues have shown what sort of Medical officers may be obtained in this way; and yet it is into such hands that Government would commit the health and safety of an army. Had the bill passed, the next step would have been to have abolished competitive examination for the English army also, for it could not have been pretended that the Medical officer who was good enough for India would not be passable in England. Virtually, indeed, this has been done already, and, perhaps, it would be justice to say that the Indian bill was a logical sequence of the appointment of the Acting Assistant-Surgeons in England; it certainly was one of the necessary consequences of all that has been done of late to lower and degrade the position of the Army Medical officer. It would be a waste of time pointing out how this question of answering the needs of the Army Medical Department is one of ordinary demand and supply—how, if the service is made honourable and attractive in position and status, good men will always seek it in sufficient numbers, even though the pay be not very high, and some of the best men

will from temperament and tastes choose it in preference to civil practice; and how, on the contrary, if it is made, as now, odious and degrading, only those who are too indolent and too weak for private practice will seek it—only the failures of the Profession. The wonder is that Government should ever have dared to tell Parliament that they had reduced themselves to recruiting the Army Medical Service from such sources. The obtuse boldness of Sir Charles Wood may, however, have the happy effect of rousing the nation to an appreciation of the present state of things in a degree that nothing else could have done, and we are happy to see that Colonel North threatens to move for an Imperial Commission to inquire into the management or mismanagement of the department; so, no thanks to the Government, good may come out of evil.

THE COLLEGE OF PHYSICIANS AND THE GENERAL PRACTITIONER.

It is generally understood that the Council of the College of Physicians have, after full consideration, decided on recommending the College to adhere to the bye-laws of the Institution, which require all Practitioners seeking the licence to pass an examination, and thus to decline to accede to the proposal made in the memorial recently presented to them. There is no doubt that the College will adhere to the recommendation of the Council, which is founded on the arguments advanced by us last week—viz., that it would be unjust to the present Licentiates, who have acquired their distinction by a fair examination, to place others on the same footing without any examination at all; and, secondly, that the College has fully provided, in the bye-law which we quoted, for the admission of Practitioners of a certain standing, who can testify to the possession of a fair practical knowledge of the Profession. The examination is in the practice of Medicine, Surgery, and Midwifery—not in theoretical subjects; is *vivâ voce*, and lasts only for a short portion of one evening. To join the College is an honourable ambition; to join it after a fair examination is creditable and worthy of all praise; and we recommend all who desire to raise their position, and who are conscious of their own ability and worth, to pass this examination, and obtain the College licence without signing and sending forward memorials to which the College will not accede—in fact, could not accede without degrading the whole Profession, and rendering the coveted licence worthless.

We have known several Practitioners, who started with the M.R.C.S. and L.S.A. qualifications, and who after twenty years, or thereabouts, of successful practice, have determined to take some step upwards—usually by the acquirement of the M.D. degree from some Scottish University. In order to do the thing thoroughly, they took that most unusual indulgence—a six weeks' holiday, went to some Medical school—London, Edinburgh, or even Paris; went to the dissecting rooms and revived their fading knowledge of minute anatomy, attended the Hospitals, and witnessed the application of means of physical diagnosis, and then returned to their home with increased health and vigour of mind and body, and with a largely increased hold upon the confidence of their patients. And why? Because of the M.D? No; but because they had adopted the most unfailing remedy against mental degeneration and routinism; and were able to combine the dogmatic accuracy of diagnosis of the student with that ripeness and fulness of resource in therapeutics which can be got only by experience.

Quarantine.—By a recent decree consequent upon a convention between the French and Italian Governments, it has been determined that the passengers of vessels arriving at French or Italian ports, on board which yellow fever has prevailed, shall in future be subjected only to from three to seven days' quarantine regulations, or even less, if the authorities see fit.

THE WEEK.

THE WOUNDED GUARDSMAN AT WIMBLEDON AND THE VOLUNTEER SURGEONS.

On Thursday, the 21st, at the camp at Wimbledon, a guardsman, named Thomas Cooper, employed as marker at the butts, unluckily exposed himself and received a ball, which entered an inch and a-half below the angle of the left scapula, passed through the lung, and without perforating lodged between the cartilages of the third and fourth ribs, where it was wedged in, and could be felt about two inches obliquely above and internal to the left nipple. The man had all the symptoms of wounded lung: collapse, difficult breathing, intense pain, no great bleeding outwardly, some cough, and blood expectorated in frothy fluid mouthfuls. He was brought under the care of Dr. Westmacott, of the London Scottish Volunteers—formerly Surgeon to the New York Artillery, and well known as an accomplished Surgeon, and as adding the artistic talents of his family to his Professional acquirements—to that gentleman's own tent, where he was soon after seen by Dr. Buzzard, of the Queen's (an old Crimean man); Dr. Shepherd, of the Victorias; Dean, of the Middlesex; Dr. Halley, of the London Scottish; and Staff-Surgeon Guinness of the Guards, and others. When Dr. Westmacott had ascertained the facts as above stated, he and his colleagues decided that it would be better to leave the case without any attempt to extract the ball, although they had at hand, with commendable forethought, every instrument for the purpose that modern ingenuity could devise. Emphysema was beginning over the left clavicle and extending to the right. The exploration was made under the use of chloroform, and in view of the apparent hopelessness of the patient, it was continued from time to time to ease his sufferings. Curtis's chlorodyne also was given with good effect, iced water with brandy in abundance was administered, and the patient got through the night with great distress. The next day vomiting came on, but not of blood; on Saturday retention of urine; a few mouthfuls of dark blood were also expectorated. Surgeon Trotter, Mr. Prescott Hewett, and Surgeon-Major Wyatt were also called in consultation, and spite of the unpromising aspect of the case, the poor fellow is likely to do well. It is but bare justice to the Volunteer Surgeons, and it ought to be a source of satisfaction to the volunteers and their friends, to state that the former have many experienced Army Surgeons amongst them, and are capable of attending efficiently to every casualty that may occur. They were amply occupied at this review with lesser injuries to the eyes arising from the detonation of Government caps, bruises of the fingers, etc. One death is reported from sunstroke.

THE MAIN DRAINAGE WORKS.

Again the Metropolitan Board of Works has invited the vestries, Medical Officers of Health, parish surveyors, and representatives of the press, to inspect the progress of the Main Drainage works at their outfalls at Barking Creek and Erith. It is, we suppose, pretty well known that the sewage of London to the north of the Thames is to be intercepted by three sewers running parallel with that river, and called the Northern high-level, the middle-level, and low-level. Of these the northern is finished; the high and middle-level sewers are nearly finished; the low-level must wait for the Thames embankment. All three meet at Abbey Mills, where the lower level sewage is to be lifted by pumping to the level of the others, and then all run off by gravitation across the marshes through the Northern outfall sewer, a triple tunnel of huge dimensions, to the Northern outfall reservoir at Barking, where it is to be collected, and discharged into the Thames at the turn of high tide.

"The levels of the reservoirs are such that all the sewage which will be constantly flowing into them can be discharged into the river through culverts carried into its bed, within two hours of high water, and thus it will be diluted by the full

volume of the stream, and carried down by the full strength of the tide to a distance of twelve miles below the point of discharge, which is equivalent to having the point of discharge, at low water, twenty-six miles below London-bridge.

"Culverts are constructed at the head of each reservoir, which will be filled by the tide every high water; and by lifting penstocks after the reservoirs are emptied, the tidal water thus pent up will be discharged into the reservoirs, and will scour away all deposit."

This Northern Outfall was the point first visited; and after marvelling at the penstock house and the other machinery for regulating the flow of the sewage into the reservoirs, and thence into the Thames, the visitors descended into one of the four compartments into which the reservoir is divided. Imagine a cathedral crypt, seventeen feet high and two acres and a-half in extent, lighted by coloured lamps, which showed the contour of every arch without dispelling the general gloom. The beauty and symmetry of the structure, and the long avenues which opened at every angle, made it a sight to be remembered. Thence to the Southern Outfall, a mile lower down the river at Erith, where arises a towering edifice like some Lombardic Basilica, which is really the engine-house and pumping station, for here the whole sewage requires to be lifted into a reservoir, whence it is to flow into the Thames at the proper time. This reservoir was a thing to see. It has an area of about six and a-half acres, is seventeen feet deep, and is capable of holding 4,340,000 cubic feet, or 27,000,000 gallons of sewage in the four compartments.

Probably no building in the world is so marvellous, and the sight by the thousands of privileged persons who visit it during this week will be a thing to be remembered when this huge building shall have been devoted to its noisome duties, and be buried from human ken. Fancy a crypt, nine and a half acres in extent, gaily lighted up, and with a brass band and drummers promenading it! The reverberations made brought the walls of Jericho forcibly to mind; but, luckily, the masonry, though shaken, did not fall. As works of engineering skill and beauty of construction, these outfalls are unequalled; nevertheless, we still hold to the idea that it is wicked to spend so much money on pumping good sewage away. "This stuff is quite valueless to the agriculturist," said an eminent chemist in the party; "all the ammonia dissipated; it is little more than water." "How horridly the country is burnt up," said another; "not a drop of rain; no grass, no turnips. What the farmers will do I cannot think." These two statements may surely set men thinking; and, after the Main Drainage works are finished and acknowledged to be an eighth wonder of the world, and after Mr. Thwaites is made a baronet and Mr. Bazalgette a knight, probably some new scheme will arise for making the sewage of three millions of men fertilise Mother Earth.

THE CONTAGIOUS DISEASES ACT (AMENDED.)

We are disposed to consider the Bill for checking the spread of venereal diseases amongst our soldiers and sailors, which has just passed both Houses of Parliament, as the most valuable result of a very unfruitful Session. For the first time in its history Parliament has not shirked its responsibility in this matter, nor shrunk from recognising an evil which year after year has been damaging the efficiency of the public services, and undermining the powers of life of the class whose health the country takes under its peculiar care. It is to be observed that the measure offers no protection or encouragement to vice. It presents nothing analogous to the French system of licenses. It simply is an authoritative provision for segregating the sick, and is rather analogous to an ordinary measure of quarantine, or, at least, to such special enactments as have been put in force in times of epidemic sickness, than to the Continental machinery which gives a passport to sin with impunity. The Act is only to continue in force for three years. At the end of that time sufficient experience will have been gained as to its defects and successes to make it the groundwork for future legislation. We think the Government have acted wisely in utilising the existing means of treatment, rather than at the present stage saddling the country with the expense of a special Hospital in every garrison town and seaport. Hereafter, if the system work well, it may perhaps be found for the benefit of the general Hospitals and the public that every military and naval station should have its Lock Hospital. But at present Government would certainly not have been justified in incurring such an expenditure. The Act, although avowedly tentative, is an important onward step in legislation. Its principal provisions will be found in another part of the journal.

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE XXIII.—MARCH 24.

Among the Platyrhine apes, as a rule, there are no large air sacs connected with the larynx, but several exceptions are met with of a very singular character. In *Ateles* a single median sac is developed at the back of the trachea, opening into the air passage between the upper ring and the cricoid cartilage. In the Howling Monkeys (*Mycetes*) the hyoid and laryngeal apparatus is exceedingly developed and modified. The body of the hyoid is expanded into a great rounded drum with thin osseous walls, the larger cornua projecting backwards from it, though the lesser pair are quite obsolete. The thyroid cartilage is also exceedingly large, and the epiglottis undergoes an extraordinary development and change of form. The cavity of the glottis presents several prolongations; one long and narrow tube in front communicates with the chamber in the body of the hyoid bone, the two lateral sacculi are prolonged upwards on each side, and are only separated from each other above the larynx by a thin membranous septum, and in some species there is, in addition, a smaller inferior pair of sacs. That this vast and complex mass of bone and cartilage in connection with the vocal organs has something to do with the production of the loud and discordant sounds for which these animals (as their name implies) are remarkable, may well be imagined, but the *modus operandi* is a problem in acoustics not so easy to understand.

The brain presents great variations in different members of this group. The little value that can be placed, for purposes of classification, upon the length of the posterior lobe, and the amount of its projection beyond the cerebellum, is strikingly exemplified among them. In *Mycetes* like *Hylobates* among the Old World apes, the cerebrum is so short that it barely covers the cerebellum, while in *Chrysothrix*, as originally shown by Isidore Geoffroy St. Hilaire, one-fifth of its whole length is posterior to the cerebellum, much more than in man or in any other animal. This difference, moreover, does not depend upon the position or relative size of the cerebellum, but on the actual length of the posterior as compared with the anterior and middle portions of the cerebral hemispheres, as ascertained by a series of measurements of their internal parts. Besides the differences of form, there are also great differences in the arrangment of the gyri and sulci upon the surface. In the genus *Cebus*, these resemble very closely those of the Cynopithecini. *Ateles* presents a higher type, having the external perpendicular fissure almost obliterated by the great development of the annectant gyri. From these higher forms we may descend, through gradual steps, to brains almost devoid of convolutions, as in *Nyctipithecus* and *Chrysothrix;* and yet, with this simplification of structure, the essential characteristics of the brain of the Primates is retained, the posterior lobe is as well or better developed than in man, and with it the posterior cornu of the lateral ventricle, and as indicated externally by the constant presence of the calcarine fissure, the hippocampus minor. The cerebellum presents marked signs of degradation: its vermis is so large as to project posteriorly beyond the level of the lateral hemispheres, instead of being situated in a depres-

sion as in man and the anthropomorphous apes; the flocculus is large, and lodged in a fossa on the inner surface of the temporal bone. The narrowing of the pons allows the spaces on the upper part of the pyramidal bodies called "corpora trapezoidea" to be apparent on the surface.

Of the placentation of the platyrhine apes we know but little beyond the account published by Rudolphi. He describes the placenta of *Mycetes* as single, discoidal, and much resembling that of man, except that there are two umbilical veins instead of one.

In the directly descending series of the Primates which follow the human type is one other group, the *Arctopithecini*, or Marmosets; like the last (with which they are often associated in zoological systems), all inhabitants of the American continent. They are all small, elegant, squirrel-like creatures, covered with abundant hair, and with long, bushy, and non-prehensile tails. In common with the Platyrhini, they have widely-separated nostrils, and no ischial callosities or cheek pouches, but they differ from them in the character of their extremities and in their dentition. In the fore-limb there can be no longer said to be a thumb, in the ordinary sense of the word; the innermost digit is certainly present, but it lies in precisely the same plane as the others, and is not in the least degree opposable; moreover, its nail is like that of the other digits, strongly compressed, curved and pointed, ensheathing the compressed ungual phalanx on three sides. In the hind foot the hallux is very small, but it is still slightly divergent and opposable, and differs from the other digits in having a flat nail.

The skeleton generally much resembles that of the other New World Primates. There are usually nineteen dorso-lumbar vertebræ. The posterior are considerably longer than the anterior extremities; the foot is larger than the hand. The carpus has nine bones; the pelvis is long and narrow. The skull is elongated, the occipital portion projecting much. The hyoid presents a lower form than in the other monkeys; its body is narrow from side to side, and much arched, and the anterior cornua are much developed. The teeth are small; at first sight a recurrence of the dentition of the Old World forms appears to have taken place, but a more careful inspection shows that, although the number is the same as with these, the nature of the teeth is different, the dental formula being—

$$i\,\frac{2-2}{2-2}\quad c\,\frac{1-1}{1-1}\quad p\,\frac{3-3}{3-3}\quad m\,\frac{2-2}{2-2}=32$$

The relative number of premolars and of true molars has thus changed, and the milk dentition consequently is the same as that of the platyrhine monkeys—

$$di\,\frac{2-2}{2-2}\quad dc\,\frac{1-1}{1-1}\quad dm\,\frac{3-3}{3-3}=24$$

The pattern on the molars closely resembles that of the preceding group; in one section of the family the incisors of the lower jaw are long and much inclined forwards, and the scarcely longer canines placed close to them, with a very similar inclination.

The muscular system also closely resembles that of the platyrhini. Now that the thumb has lost its opposability, and the terminal division of the fore-limb become a paw rather than a hand, it is interesting to find that on the whole it retains the characteristic arrangements of the hand of the higher groups. The pollex or first digit has its proper adductor, abductor, and long flexor tendon, but an opponens has not been seen. The flexor longus is completely united with the flexor profundus digitorum, but the tendon comes off on its own side, instead of crossing, as in some of the higher forms. The extensor secundi internodii pollicis is united with the extensor indicis, and the extensor minimi digiti gives off slips to the three ulnar fingers, so that there is a complete double set of extensors. The opponens minimi digiti is distinctly developed. In the foot there are four peronei, longus and brevis, and one to each of the outer digits. The flexor accessorius is present, and gives almost the whole of the tendon to the hallux, the flexor longus digitorum supplying the second and fifth digits, and the flexor hallucis the third and fourth, but the tendons are much mixed up together. While the interossei of the hand retain the same general arrangement as in the highest groups, those of the foot have completely lost it, and even the hallux resembles the other digits in having a pair of short flexors attached to its metatarsal bone, and it completely wants the proper adductor.

The brain is long and depressed; the posterior lobes project considerably beyond the cerebellum; the olfactory lobes are large, and prolonged in front of the cerebrum. The surface markings are reduced to a few simple sulci, the greater part of the hemispheres being quite smooth. The outer surface has only the Sylvian fissure, and a faint trace of the antero-parietal. On the inner face the calcarine fissure (indicating the hippocampus minor within) is deeply marked. The corpus callosum is much reduced in size.

The reproductive organs resemble generally those of the platyrhine apes; the penis is pendant, the scrotum distinct, and the uterus undivided. The placenta, according to Rudolphi, is circular, remarkably thick for its size, showing distinctly the difference between the fœtal and maternal portions, and with a double umbilical vein. They have two or three young at a birth, a sign of degradation, all the preceding forms having habitually but one.

PARLIAMENTARY.

In the House of Lords on Thursday, July 21, the Weights and Measures (Metric System) Bill was read a second time.

The Poisoned Flesh Prohibition Bill was read a second time.

The Contagious Diseases Bill was read a third time and passed.

On Friday, July 22, in the House of Lords, the Poisoned Flesh Prohibition Bill passed through Committee.

In the House of Commons the adjourned debate upon the India Medical Service Bill was resumed.

Mr. Hennessy moved the addition of the following clause:—"Any person, being a natural born subject of Her Majesty, who may be desirous of being appointed an Assistant-Surgeon in the said forces, shall be admitted to be examined as a candidate for such appointment." He believed that the right hon. gentleman and himself differed very little as to their opinions upon the subject, and his motion, if carried, would only put into the Act what the right hon. gentleman had declared to be the intention of the Government. His motion was taken verbatim from the existing law, and would prevent the exercise of arbitrary power, which would be warranted by the Bill in its present form. The present Bill was only a device to cover the misconduct of the Government in reference to their treatment of these officers, for in respect to rank, pay, and general position they had been so badly treated that there was a difficulty in procuring officers in that department of the service. As regarded the system of competive examination, Sir John Lawrence in 1860 or 1861 said that its results had been within his own experience eminently successful. He would ask the right hon. gentleman distinctly whether he was of opinion that the competitive examinations ought to be kept up. He wished to have an explicit answer, because they must not put their faith in princes, much less in Secretaries of State. He begged to move the addition of the clause.

Colonel Sykes could not understand the objection which his right hon. friend entertained towards the clause, because it was almost word for word a portion of the Queen's proclamation to the people of India. He was glad to find that his right hon. friend had removed many of the grievances under which the old service had laboured. He thought that the new officers should be grafted upon the old service. He had heard that day that a native had been appointed to the office of judge of the High Court of Bombay. That appointment did the right hon. gentleman great credit, and such a course would do more to conciliate the people of India than the neighbourhood of 80,000 bayonets, and for each such appointment the Government might rest assured that they might remove a regiment.

Sir C. Wood could not allow the hon. and learned gentleman to imagine that he was averse from the principle of com-

petitive examination, because he was the first to introduce the principle into this branch of the service by an Act which he passed in 1853. A return of the last three examinations, however, showed that for 90 vacancies there were 72 candidates, of whom only 50 succeeded in passing, so that the supply for the last 18 months had fallen short of the demand by 40 men. What he proposed by the bill was to enable the Assistant-Surgeons in the Queen's army, all of whom obtained their appointments by competition, to volunteer, if they so pleased, into the Indian service. Some remedy was absolutely called for, and the motion of the hon. and learned gentleman did nothing but restore a system which had already been found to fail. Sir John Lawrence stated that the Medical service in Bengal was short by 20 officers, and that the deficiency elsewhere was still greater. He believed the bill in its original form would be of great benefit to India, and he could not, therefore, consent to the addition of the clause proposed by the hon. and learned gentleman.

Colonel North believed that the argument used by the hon. baronet would be a very good one if our own army found no difficulty in obtaining Medical officers. The Government had been compelled to extend the age of admission, first to 25, and latterly to 40; and now they had been compelled to introduce a new class of officers, entitled Acting Assistant-Surgeons. The failure in the number of the candidates had partly arisen from the hard and unnecessary examinations which the candidates had been compelled to pass. On a former occasion he had been told that the system would be changed, and an increase of pay given to the Medical Department. He could not see how the deficiency in the Queen's service could be obviated by the Assistant-Surgeons in that service volunteering into the Indian army.

Dr. Brady said that the competitive system had failed solely from the inferiority of the pay and treatment accorded to the Medical service.

Sir J. Trelawny expressed himself in favour of the competitive system of examinations.

The House then divided upon Mr. Hennessy's motion, and the numbers were:—

For Mr. Hennessy's motion	11
Against	31
Majority against the motion . . .	—20

The motion was consequently lost, and the Bill passed through committee.

On Saturday, July 23, in the House of Lords, the Contagious Diseases Bill was read a second time.

The Poisoned Flesh Prohibition Bill was read a third time and passed.

In the absence of Sir C. Wood, the third reading of the Indian Medical Service Bill was moved by Lord Palmerston.

Mr. Hennessy said that petitions had been addressed to the House by Medical officers in Her Majesty's Indian service, complaining that the Indian Government were treating them very badly. Only a few days ago a petition was laid on the table from the College of Surgeons, reciting the grievances of these gentlemen, the gist of the statement being that changes had been introduced by the Government to the disadvantage of Medical officers, belonging not only to the Indian, but also to the Home service. Under these circumstances the number of candidates for Medical appointments had declined in proportion as the Government injured the service. In 1858 an Act was passed providing that all Medical appointments in India should be given by open competition. The Secretary of State alleged that open competition had failed, because the number of candidates had fallen off; but that result was attributable not to the failure of competition, but to the ill-treatment of the service. (Hear, hear.) The right hon. gentleman, instead of redressing the grievances of these Medical men, proposed to do away with open competition and to appoint an inefficient body of Medical officers, thus endangering the safety of the Indian army. The Bill had been brought in late in the Session, and hurried through without opportunity being given for discussion in anything like a complete House. It proposed, in lieu of the present statutory regulation under which these appointments were made, to place an old and arbitrary power of selection in the hands of the Secretary of State. The right hon. gentleman said he intended to obtain Medical men for India from the Queen's army; but as they had been informed by the gallant officer near him (Colonel North), the army of the Queen itself was at this moment inadequately supplied with Medical men. The right hon. gentleman asked them to repeal the only statute which established open competition, and then he said he would avail himself of a warrant by which such competition was established. But that warrant might at any moment be withdrawn, and, moreover, the provisions of the Bill made no mention of it whatever. He begged, therefore, to move that the Speaker leave the chair, in order that in committee he might move the insertion of words which might make the Bill a useful measure.

Colonel North, in seconding the motion of his hon. and learned friend, reiterated that the Queen's army, from which it was proposed to draw Medical men for India, was now most insufficiently provided with Medical officers. (Hear, hear.) If there was an army in the world which had a right to expect that no expense would be spared in supplying it with a proper Medical staff, it was the British army. Some foreign armies might be more exposed to the bullet than ours was, but there was no army so much exposed as ours was to every kind of climate. It seemed to be utterly impossible to make any impression on the Government on that subject. Even the disastrous experience of the Crimean war, in which thousands and thousands of our men were sacrificed in consequence of the inadequacy of the Medical staff, appeared to have been lost upon the Government. The Medical service of the army was composed of a body of gentlemen who had never failed in their duty at home or abroad; but now, owing to the treatment these gentlemen received, Medical men of good standing could not be got to enter the service, and the Government were obliged to resort to the introduction of an inferior class of men, who had never been found in such positions before. He protested on the part of the army against the manner in which the Medical department had been treated, and unless something were done in the interval he would move an address to the Crown on the subject early next Session.

Sir M. Farquhar wished to know from the Secretary of State for India whether or not he intended to do away with open competition. The refusal to answer that question distinctly created suspicion. He was informed on good authority that the competitive system had worked well in reference to the Medical service in India. He had that day received no less than fourteen petitions from Medical officers in India, complaining of the manner in which the warrant of 1858 had been carried out as far as they were concerned. Young men of ability were at present deterred from entering the service, and vacancies could not be filled up without employing an inferior class of men. The services of a large body of competent Medical men might be secured if they had only some guarantee that their rights would not be tampered with.

Sir C. Wood said that the hon. member who spoke last had mixed up matters which bore no relation to each other. He had said he had petitions to present from Medical officers in India with reference to the warrant of 1858, but he had entirely forgotten that there now lay on the table the copy of a despatch sent to India three or four months ago, and remedying the grievances of the existing Medical service of India by putting it entirely on the same footing as to pay and allowances as the Queen's army occupied, according to the rank which the officers held. The hon. member said the object of the bill was to get rid of the competitive system, and to introduce into the Indian service an inferior class of Medical officers. The hon. gentleman must either not have heard or had forgotten the statements that he (Sir C. Wood) had made on three or four occasions in that House. The competitive system had not failed in the Queen's army at home, but it had failed in respect to the Indian army. That was, of course, before the improvements had been made in the condition of the Medical officers in that country. The object was to get a better description of men for the Indian service. All the Assistant-Surgeons entered the Queen's army by competition. It was not possible to introduce into the bill all the regulations that would be necessary to be made, but those regulations would be laid before Parliament. The object of the bill was to enable the Secretary of State to make certain regulations under which Assistant-Surgeons of the Queen's army might be induced to enter the Indian army, and he believed that the advantages of Indian service were now made so great that many officers would be induced to avail themselves of the opportunity held out to them. There could be no object in requiring two examinations in such cases. The Assistant-Surgeon passed a competitive examination upon entering the Queen's army, and it would be useless to call upon him to undergo a second and similar examination upon transferring himself to the Indian service. After these explanations, he trusted the House would assent to the third reading of the bill.

Mr. Monsell, having listened attentively to the speech of the right hon. gentleman, still entertained a belief that the

object of the bill was to get rid of a system which had been deliberately adopted by Parliament—the system of competition in the Indian Medical Service—(hear, hear)—and to substitute for it the arbitrary will of the Secretary of State. (Hear, hear.) That was not an object which the House should sanction. It was said that there was a difficulty in getting Medical officers for the Indian service, and the right hon. gentleman told them that he was not going to get a worse class of officers than we had at present there. If so, there was no reason to depart from the present system. Let the right hon. gentleman hold out proper temptations, and there would be a hundred candidates for each appointment. Either there was no reason for the bill or the standard of efficiency was to be lowered. If, as the right hon. gentleman assured them, he had introduced many important improvements in the condition of the Indian Medical Service, there would be a sufficient number of candidates at the next competitive examination. It was a mere question of demand and supply. If terms were proposed such as men of education could not accept, the right hon. gentleman would not get a sufficient number of proper candidates. The right hon. gentleman said he wanted to get Assistant-Surgeons from the Queen's army to enter the Indian service, but they were told by the right hon. and gallant officer opposite that there was a difficulty in obtaining a sufficient number of Assistant-Surgeons for the Queen's army. This proposition had filled him with alarm, because he knew that there lurked in many departments a dislike to the whole system of competition. He believed that if this bill were carried, although he was quite sure the right hon. gentleman would not depart from his promises, yet in the course of a short time the competitive system would be destroyed root and branch. He implored the right hon. gentleman to withdraw the bill, and not to endeavour in the last days of the Session, by means of a Government majority, to pass a measure which could not be fairly discussed now, and which appeared to be so opposed to a system which had received the sanction of Parliament.

Mr. Lysley joined in the appeal just made. The provisions of the bill appeared to him to be clear to substitute a system of patronage for a system of competition. (Hear.) He protested against a bill which professed upon its face to confer unlimited powers, being explained by a promise that those powers should only be exercised within a certain limit. (Hear, hear.) If this bill were passed, he agreed with the right hon. gentleman (Mr. Monsell) in thinking that it would be fatal to the system of competitive examinations. As to the want of candidates for the Indian service, that was to be traced to the inadequate inducements that were held out; and he thought that nothing would be so unwise as to deal in a niggardly spirit with Medical officers in such a climate as that of India. Those arrangements which would procure the most efficient Medical officers for our troops in India would, in the end, be by far the cheapest arrangements this country could make. (Hear, hear.)

Sir E. Colebrooke hoped the right hon. gentleman would not attempt to force the bill through Parliament this Session.

Colonel Sykes insisted that the competitive system, as regarded the Medical service in India, had not failed. If this bill passed, there would be three Medical services in India. There could be no use for that. He hoped the bill would be withdrawn.

Mr. Clay thought if the object of the right hon. gentleman was so limited as he had stated there could be no occasion for a bill which would enable him to do so much more. If the improved condition and character of the Service did not bring an increase of candidates, he might next Session bring in a bill to enable him to do what he wanted and no more. (Hear, hear.)

Mr. H. Seymour hoped the Bill would be withdrawn. Would the right hon. gentleman lay the regulations on the table?

Sir C. Wood could not lay the regulations on the table.

The House then divided, when there appeared—

Ayes	44
Noes	46
Majority	—2

The order of the day was then discharged

The Bill is accordingly lost. Not only the Profession of Medicine, but the country at large are deeply indebted to Mr. Hennessy, Colonel North, and the other members who opposed and finally defeated this most disgraceful measure, which was nothing else than an attempt on the part of Government to relieve themselves from the consequences of their own misdeeds at the expense of the sick soldier.

In the House of Lords, on July 26, the Weights and Measures (Metric System) Bill passed through committee.

FROM ABROAD.—ELECTRICITY FOR NASO-PHARYNGEAL POLYPI—TRANSMISSION OF FAVUS—BACTERIDES AS A CAUSE OF CARBUNCULAR DISEASE.

M. Nélaton brought under the notice of the Academy of Sciences the treatment of deep-seated naso-pharyngeal polypi by electricity. Certain tumours of this kind defy all Surgical procedures, while even when of possible execution these give rise to great mutilations of the face, which are afterwards susceptible of only partial reparation. After having observed in experiments upon animals that an energetic and continuous electrical current induces the mortification and destruction of the parts into which the needles are implanted, M. Nélaton conceived the idea of employing these in deep-seated polypi. It was, however, not without some hesitation that he put the procedure into force, as it was doubtful whether hæmorrhage, excessive suffering, or injurious effects on the spinal cord or brain might not result. He nevertheless resorted to it in the case of a young schoolmaster, 20 years of age, employing Bunsen's pile, with nine plates and two platinum needles half a millimetre in diameter. Six *séances* were required, separated by intervals of ten days, the patient entering the Hospital in January and leaving it cured on May 28. There was neither pain nor hæmorrhage of any account, the chief inconvenience being produced by the falling of a white foam into the pharynx, produced by the decomposition of the parts into which the needles were implanted.

Favus, observes M. Lemaire, in a communication to the same learned body, one of the most repulsive of diseases, has been shown by Schönlein and Bazin to be due to the presence of an achorion, the destruction of which leads to its rapid cure. M. Bazin admits four modes of transmission—immediate or mediate contact, inoculation, and propagation by the air. The three first have been clinically proved, but the last has remained in the condition of a plausible hypothesis. M. Lemaire, having contrived an apparatus which conveys a current of air over the scalp affected with favus into receivers containing ice, has now been enabled to detect the achorion in the air itself so carried, and in the moisture which ensues upon its condensation in the refrigerators. He adds, "I am desirous to call the attention of the Academy to the fact that this is the first occasion that the presence of living bodies capable of reproducing a contagious disease which gave rise to them has been demonstrated in the air."

M. Davaine has recently made known to the Biological Society his later investigations respecting bacteria as the cause of the splenic-apoplexy or carbuncular disease observed in sheep (*Medical Times and Gazette*, 1863, vol. ii., pp. 170-257). His observations, now amounting to 137 in number, amply prove that these minute organisms are constantly developed during the life of the animals, and even after their death. They consist of minute filaments from four to twelve-thousandths of a millimetre in length, which disappear during putrefaction; and formerly he was disposed to consider them as belonging to the filiform infusoria, the bacteria or vibriones, from which they differed only in the absence of movements. Subsequent observation, however, has exhibited a great number of these corpuscles of far greater length than that assigned to bacteria or even vibriones. He now believes that they cannot be properly classed with any of the known confervæ, their *habitat* and the phenomena determined by their propagation entitles them to be considered as a well-defined species, which resembles the filiform protozoa by their mode of generation and propagation, the filamentous confervæ in form, appearance, and dimensions, and certain ferments by the phenomena which they induce. It would be, therefore, premature to attempt the definitive classification of these cor-

puscles of splenic apoplexy, and M. Davaine proposes to term them provisionally merely *bacterides*. There are considerable varieties in the size of the *bacterides* observable, without any condition of the inoculated animals explaining the fact. Their number also greatly varies, from myriads found in some instances, to their rare occurrence in others. A very peculiar condition in animals affected with carbuncular disease is the disposition which exists for the globules of blood to become agglutinated to each other, so as to present little islets in the serum. When the blood infected with *bacterides* begins to putrefy, these agglutinated globules separate again. The blood of the capillaries is far richer in *bacterides* than is that of the large vessels; but they have not been found to have passed from the mother to the fœtus, although existing in prodigious numbers in the placenta. When putrefaction has commenced and the *bacterides* can be no longer recognised, the blood ceases to possess the power of inoculating the carbuncular disease, although if used in sufficient quantity it may still cause the death of the animal, with other accompanying phenomena. This carbuncular disease, or splenic apoplexy, is, then, not of a putrid nature, as has been supposed when microscopical examination has not been made; and to induce this disease the blood inoculated must be fresh or living. The power which the blood possesses to communicate the disease continues for a longer or shorter time after death, according to the temperature, this faculty disappearing during the heat of summer in less than two days. Dried blood may retain the power of propagation providing it be rapidly desiccated prior to putrefaction; and it is highly probable that dried *bacterides* transmit the disease in flocks of sheep through the medium of the respiratory organs. The disease may, too, be transmitted by the agency of the digestive organs, though less certainly than by subcutaneous inoculation. The duration of the period of incubation, after inoculation with fresh blood, has, in the author's experiments, varied with the size of the animal, but the rapidity of the occurrence of death has not been found to be in proportion to the number of *bacterides* produced. The author's experiments have conclusively shown that the seat of the disease is not, as supposed heretofore to be, in the spleen, but in the blood of the economy which has become infected with *bacterides*.

DR. LIVINGSTONE.—The following letter appeared in the *Times* of July 25:—

"*To the Editor of the Times.*

"Sir,—The public will be glad to learn that this great African traveller will shortly be at home. By a letter which I have just received from him, and which was finished at Malta on the 17th inst., I learn that he reached Bombay on June 13, after a voyage of forty-two days from Zanzibar in his own little steamer, the *Lady Nyassa*.

"Far from being downcast at the failure of the efforts hitherto made to check the slave trade on the east coast of Africa, my dauntless and energetic friend writes that he 'cannot find it in his heart to abandon his object.' He is therefore bent upon returning to Africa, after a stay of about four months at home, during which time he will consult friends on the subject of those future labours in which he purposes to employ his steamer, now left at Bombay. Of this vessel, built at his own expense for river and lake navigation chiefly, Dr. Livingstone writes:—'The *Lady Nyassa* is a first-rate little sea-boat, and she rose like a duck on the huge waves of the ocean.'

"The projected new expedition of Dr. Livingstone is not, he says, 'so much exploration, as to set in train operations by merchants and others by which the slave trade shall be eventually worked out.'

"I trust that at the meeting of the British Association, to be held at Bath on September 14, this truly disinterested and good man will give us an account of his last bold adventures.

"Your obedient servant,

"RODERICK I. MURCHISON."

"Belgrave-square, July 22.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF BIRMINGHAM.

THE QUEEN'S HOSPITAL.—*Continued.*

THE number of out-patients treated at the Queen's Hospital is on an average 100 a day: many of these are cases of injury, or, as they are called, urgent cases. The cost of the out-patients stands at 2s. 11½d. per patient per annum, and many cases are admitted free. Last year 14,660 out-patients were admitted, including 3432 children under seven years of age, all of whom came under treatment without a subscriber's ticket.

SANITARY ARRANGEMENTS.

The position of the Hospital is good; the frontage faces the south, and the entrance-hall is spacious and open.

The Wards.

The wards are fifteen in number. They consist of a male accident ward, holding twelve beds; of a female accident ward, holding four beds; of two double wards, holding each eighteen beds, and containing mixed Medical and Surgical cases; and of smaller wards for Medical and Surgical cases. It is a peculiarity of this institution that Medical and Surgical cases are mixed.

The main building, which consists of two wings and central body, and which faces the south, receives all cases, Medical and Surgical, that are not of an infectious character. To receive cases of fever, burns, and lock cases, there are eight detached wards sixty yards to the back of the main building. The space between the two buildings, under ordinary circumstances, forms an airing-ground for convalescents; at this moment, owing to the prevalence of small-pox, a strict cordon is established. None of the Surgeons or Physicians have separate wards.

A ward in the main building, marked Number 9, is set apart exclusively for the reception of patients professing the Hebrew faith. This ward, which contains four beds, was fitted up in the year 1860 by Jacob Phillips, Esq. At first an attempt was made to provide a special diet for the occupants of this ward—a diet cooked according to the rules of the Jewish race; but the plan was found not to answer, and is now given up.

At the back of ward Number 7 is a children's ward, containing ten cots. All the beds are usually occupied.

The bedsteads are of iron, with curtains at the head. *The bedding* consists of a hair mattrass, with under mattrass of straw.

There are no *decorations* in the wards: the walls are painted, rather more than shoulder high, of a stone colour, and above that are coloured. Here and there flowers are placed, but in limited numbers.

There are *small bath rooms* to every floor, on each side, male and female. The baths are of iron. There is no hot air-bath in the institution.

The *water-closets* open into the wards, and the *lavatories* also. In the cases of double wards these conveniences lie between the wards.

The *floors* of the wards are of deal; the process of cleaning is by scouring; dry rubbing has never yet been introduced.

Ventilation.—Cubic Space.—The ventilation is mainly natural, and, as the windows of each ward face each other, and the wings are open on two sides freely, there is not much difficulty in securing a free current of air through and through. There are, in addition, openings in the ceilings of each ward over the gas burners, the openings communicating, by shafts, with the external air. In the roof of the building, also, in the central wing, over the entrance-hall, there is a shaft or opening into the air which is said to answer well, and to be of essential service in the general ventilation. As regards the arrangements of the beds, I may state that the distances between the beds are tolerably equal, and there is no appearance of overcrowding. At the same time, presuming that every bed were full, the cubic space would be too small. From a measurement made for me at the time of my visit I find that the average cubic space is hardly 1000 cubic feet per bed.

The wards are *well lighted;* the sunlight is freely admitted, and the rooms, although not so cheerful as are the rooms of

the infirmary at Lynn, are much better than in most similar buildings. The *warming* is by the open fire-grate.

The water supply and drainage.—The water supply is from the Water Works Company. The water is received into two large cisterns, whence it is distributed over the house. The closet and sinks are thoroughly supplied with water for flushing, and the escape is free. The drainage is into a large sewer, and as the fall is sufficient, the sewage is conveyed away effectually. The presence of drainage smell in the air of the Hospital is not known.

The operating theatre.—The operating theatre is large and perfectly lighted. The seats for students are well arranged, and there is space for about 100 observers.

The out-patient department.—The out-patient department is neatly arranged, and the rooms for the patients and for the Medical officers are very convenient.

The Nursing System.

The nurses are fairly accommodated. Their rooms in the wards are in most places so situated as to command a view of the patients. The number of nurses is eight for the day, four regular nurses for the night, and extra nurses as may be required by the Medical or Surgical staff. The day nurses have fifteen beds each on the average.

Diet of the Hospital.

The extra diet of the Hospital is very full; the ordinary diet is limited. The following is the scale of diets:—

Diet Table

No. 1.—Extra Diet.

Breakfast.	One pint of tea and a quarter of a pint of milk.
Dinner.	Four days—twelve ounces of meat, roasted (weighed with the bone before it is dressed), and half a pound of potatoes.
,,	Three days—the same quantity of meat, boiled.
,,	Twelve ounces of bread, two pints of beer to men, and one pint and a-half to women, daily.
Supper.	One pint of gruel and a quarter of a pint of milk.

No. 2.—Ordinary Diet.

Breakfast.	One pint of tea and a quarter of a pint of milk.
Dinner.	One half the meat allowed for extra diet, and half a pound of potatoes.
Supper.	One pint of gruel and a quarter of a pint of milk. Twelve ounces of bread daily.

No. 3.—Broth Diet.

Breakfast.	One pint of tea and a quarter of a pint of milk.
Dinner.	One pint of broth and six ounces of light bread pudding.
Supper.	One pint of gruel and a quarter of a pint of milk. Twelve ounces of bread daily.

No. 4.—Milk Diet.

Breakfast.	One pint of tea and a quarter of a pint of milk.
Dinner.	Four days—a pint and a-half of rice milk.
,,	Three days—half a pound of bread, or rice pudding.
Supper.	Half a pint of milk. Twelve ounces of bread daily.

No. 5.—Fish Diet.

Breakfast.	One pint of tea and a-quarter of a pint of milk.
Dinner.	Four ounces of plain boiled white fish, as whiting, plaice, flounders, haddock, herring, or mackerel.
Supper.	One pint of gruel and a quarter of a pint of milk. Twelve ounces of bread daily.

No. 6.—Fever Diet.

A pint of tea morning and evening, with a quarter of a pint of milk; twelve ounces of bread daily; barley-water *ad libitum*. Bread, arrow-root, milk, gruel, etc., must be specially ordered.

The following calculations will be of use to those who are studying the question of Hospital diet. They are appended to the diet-table of the Queen's Hospital:—

	Dressed and carved.
100 lbs. of raw beef and mutton will produce, boiled,	60 to 62 lbs.
100 lbs. of mutton will produce, of cutlets . . .	45½ ,,
100 lbs. of beef will produce, roasted	51 ,,

To Make Rice Pudding, 26 lbs.—Use rice, 4 lbs.; sugar, 13½ oz.; milk, 14 pints; water, 6 pints.

To Make Milk Pottage, 28 pints.—Use oatmeal, 1 lb. 2 oz.; milk, 16 pints; water, 12 pints.

To Make Tea, 50 pints.—Use tea, 6½ oz.; sugar, 24 oz.; milk, 3 pints; water, 47 pints.

To Make Coffee, 12 pints.—Use coffee, 3¼ oz.; sugar, 11 oz.; boiled milk, 1 pint; water, 11 pints.

The average weight of a loaf of bread is 4 lbs. 5 oz.

The bag of potatoes weighs 160 lbs.; the pot of potatoes, 80 lbs.

The brewery barrel contains 36 gallons; the half-barrel, 18 gallons; and the quarter-barrel, 9 gallons.

100 patients, on ordinary diet, will consume 75 lbs. of bread, or 17 loaves 1 lb. 11 oz. per day, or 121 loaves 3 lbs. 3 oz. per week; 13 oz. of tea per day, or 5 lbs. 11 oz. per week; 3 lbs. of sugar per day, or 21 lbs. per week; 6 gallons 1 quart of milk per day, or 43 gallons 3 quarts per week; 37 lbs. 8 oz. of meat per day, or 262 lbs. 8 oz. per week; 50 lbs. of potatoes per day, or 350 lbs. per week—2 bags and 30 lbs.

Use of Alcoholics.

Alcohol is supplied in much the same proportion as at the Wolverhampton Infirmary. It is difficult to arrive at an estimate that shall be absolutely correct, but I believe on the average per patient, we may compute that the quantity of beer is a pint, of wine three-quarters of an ounce, and of spirit a quarter of an ounce per head.

From a comparison of the whole expenditure of the Hospital in 1863 and of 1848 that has been forwarded me, it would seem that the expenses for alcohol have increased in a remarkable degree of late years. In 1848 the cost for ale, beer, and porter was, in round numbers, £96; and of wines and spirits, £31. In 1863 the cost of ale, beer, and porter was £377; and of wines and spirits, £211. The figures are startling, and it becomes a great question whether under the present liberal system the success of treatment is commensurate with the excess in outlay. The difference is £471 in increase of expenditure for alcohol alone in the year 1863, as contrasted with 1848. There is a corresponding increase in other articles of diet of a sustaining character.

PRACTICE OF THE HOSPITAL.

Medical Practice.

The special features of the Medical practice of this Hospital, are—the prevalence of rheumatic fever, of rheumatic diseases of the heart, of chronic rheumatic arthritis, of chorea, of erythema nodosum, and markedly of exopthalmic goître and of tapeworm. The manufactures of the town furnish many peculiar disorders. Lead poisoning is frequent. Dr. Fleming has had two cases of aggravated dyspepsia and pyrosis in glass cutters, caused by the direct mechanical irritation of the fine glass powder getting into the stomach. Typhoid fever prevails only to a moderate extent. Cases of ague are seen occasionally, but chiefly in those who have just come from a malarious district. There has been a considerable number of cases of diseased spleen and of the splenic cachexia, and within the last seven years there have been several examples of Sarcina ventriculi.

In the treatment of acute rheumatism Dr. Fleming gives the bicarbonate of potash in effervescing mixture with lemon juice every three or four hours, or less frequently, according to the severity of the disease. If there be much pain and fever he adds the tincture of aconite to each dose, and gives an opiate at bed-time. If there be much muscular pain he adds the tincture of conium to the alkaline mixture. Dry cotton wadding is applied loosely to the joints, and the sheets are removed from the bed. In the palliative treatment of aneurism and of diseases of the heart, Dr. Fleming frequently obtains much advantage from the cautious use of aconite, and for neuralgia in all its forms this drug is still, according to this physician, the sovereign remedy. The subcutaneous injection of morphia has been used by Dr. Fleming in several cases of obstinate sciatica, and with marked benefit. At the same time he is of opinion that the practice is not altogether free from danger, and should not be had recourse to until all the simpler means have been tried and failed. Dr. Fleming has used atropia in the same way in this disease, but without good result. There is, however, much less risk of injurious action from atropia than from morphia when introduced into the cellular tissue.

In *epilepsy* Dr. Fleming has for the last eight years been using atropia, and he claims for it a success superior to that of any other known treatment. He gives it in solution thus:—Atropia, 1 grain; distilled water, 5 drachms. Dissolve thoroughly with the aid of a few drops of dilute muriatic acid, and add of rectified spirit sufficient to make ten drachms. This solution is so proportioned that 10 minims are the commencing dose for the adult, given in a little water once daily at bedtime, and on an *empty stomach*. The dose is increased daily by 2 or 4 minims, until the physiological action of the drug is produced. This treatment, which must be continued

for months, furnishes a larger percentage of cures than any other method which he has tried, and a marked improvement is obtained in at least the majority of the cases, as indicated by lessened frequency and severity of the fits and a better state of the nervous system. Dr. Fleming employs atropia also with much success in intestinal obstruction, in constipation, in asthma, and in pyrosis. In these diseases its beneficial action is often immediate, and leaves no manner of doubt as to the relation of cause and effect between the drug and the resulting improvement. The same medicine, in conjunction with iron and the tonic regimen, has proved in his hands the best treatment for the exophthalmic goître. Several of the milder examples of this disease have been thus cured, and nearly all have been benefited.

Chorea is frequent, and sometimes very severe; one case terminated in death. In a large proportion of the cases a connexion is found between this disease and acute rheumatism, but whether that connexion be of the nature of cause and effect, or whether, as Dr. Fleming suspects, a common condition of debility underlies both, has not been clearly made out. In the treatment of chorea Dr. Fleming employs arsenic (as recommended by Dr. Begbie), zinc, iron, and valerian, the shower-bath, and the tonic regimen. He uses the sulphate of zinc, and carries the dose sometimes to 16 or 20 grains three times daily, and he asserts that these large doses give a measure of success in chorea that is not obtained by smaller doses. His attention was first directed to this useful therapeutical fact by Dr. Evans. Dr. Fleming employs valerian in the form of tea—fresh and strong; so far as representing valerian, he considers the valerianates useless.

Cases of muscular wasting of the right shoulder and arm, with or without chronic rheumatic arthritis of the right shoulder-joint, are seen occasionally among the "strikers" of the "black" country, in whom it is obviously caused by undue exertion of the limb in their occupation. This class of men often furnishes examples of prematurely worn-out frames caused by labour, excessive both in force and duration. In the diagnosis of general paralysis, Dr. Fleming has directed attention to an important practical fact, viz., that one of the earliest symptoms may be disorder of micturition. The patient complains of being summoned to urinate suddenly and frequently, but when he goes to empty the bladder, the water is long in coming, and escapes slowly. Sometimes with this is conjoined a corresponding disorder of defæcation. Dr. Fleming has observed these irregularities in micturition and defæcation frequently in a more advanced stage of the disease; but the point to which he desires to draw especial attention is that they may be the very earliest deviations from health, and in two cases their presence aroused his suspicions, before any change in the gait, or speech, or trembling of the lips, or, indeed, any other symptom could be noticed.

Among other cases of much interest which have occurred in Dr. Fleming's practice, I may select for notice one of "measle" in a female. The worm was found in the voluntary muscles throughout the body and abundantly in the brain. The patient suffered from agonising paroxysms of pain in the head, attended by depression of the heart's action, and she died in one of these attacks of brain fainting. In a case of exophthalmia, goître, and organic heart disease, Dr. Fleming had an opportunity, after death, of examining carefully the orbit and its contents. The globe was not increased in size, though during life it had been very prominent, and looked as if it were much enlarged. The eye receded completely after death, and there was no serum nor increase of fat behind the globe. Dr. Fleming believes that the projection is not due to muscular traction, but to intra-orbital vascular turgescence, the result of arterial muscular paralysis, and hence undue relaxation of the vessels—the same cause, in short, which causes the throbbing, turgescence, and enlargement of the thyroid.

Diphtheria is treated by Dr. Wade with iodide of potassium and chlorate of potash, with copious administration of liquids to secure free urinary elimination. No topical applications are made to the throat. The effect of liquids was well marked in the case of one of the Hospital nurses. On the fifth day she ceased to drink freely; the urine was much reduced in quantity, specific gravity 1018. She was becoming comatose, and seemed to be sinking. She was persuaded to resume the use of diluents in large quantities. The next day the urine was much increased in quantity, and the specific gravity had risen to 1030; the symptoms of coma and sinking had passed off, and she made a good recovery. No stimulants were used, and the iodide and chlorate were used all along.

Dr. Wade also still employs his method of treating rheumatic fever, which consists essentially of a saline plan (nitrate and acetate of potash). As soon, however, as there is a distinct remission, which happens in from twenty-four to seventy-eight hours, the saline is diminished, and quinine is given in full doses every three or four hours. This seems to prevent those relapses which otherwise so often occur.

In many cases of renal dropsy Dr. Wade has found that the use of ordinary vegetable diuretics in large quantities produces diuresis when smaller doses fail. He gives, for example, sometimes a quart of the *compound decoction of broom*. Considering the known uncertainty of diuretics, this is a hint which should not be lost sight of. He has also found that iodide of potassium exercises a most marked influence upon the rather rare cases of albuminuria which have a syphilitic origin. The same drug he has recently employed with marked results in a case of painful enlarged and nodulated liver in a young girl who presented all Mr. Hutchinson's indications of congenital syphilis. Dr. Wade uses antimony freely in the bronchopneumonia of young children. The drug, he thinks, is not dangerous if the case be watched and the antimony suspended as soon as free secretion commences. Otherwise there is danger of collapse of the lung and asphyxia from the supersecretion and the depressing effects of the remedy. At this stage some stimulation is necessary, and then ammonia and senega with squill are given. I think if Dr. Wade would trust to ammonia all through he would find equally good results as regards secretion, and no depression.

From observation of several cases of retro-uterine hæmatocele, Dr. Wade has concluded that the altered blood is frequently evacuated through the Fallopian tubes. The discharge has been seen through the speculum to ooze from the os uteri. In one case it flowed faster when pressure was made upon the abdominal tumour. In others this tumour has been seen to get more solid and harder (always a favourable sign) when the discharge has been free. The discharge is often fœtid, and consists evidently of *decomposed* and *altered* blood, not of menstrual secretion. Besides, menstruation more often produces relapse than assists recovery. It often comes in gushes, preceded and attended by uterine expulsive pains, showing that it has collected in the uterus, which it must enter either by the Fallopian tubes or through a fissure of the fundus. Dr. Wade thinks the former a more likely channel than the latter. It is more copious, too, if the patient is allowed to get up and walk about. Dr. Wade has seen one case in which ascitic fluid emptied itself through the uterus. After death there was no mark of any false passage through the uterus, hence he inferred that the fluid passed through the tubes. In one case retroflexion followed hæmatocele. The uterus gradually recovered itself. From this and other cases of uterine peritonitis, Dr. Wade has arrived at the conclusion that retroflexion depends rather upon inflammatory contraction of the peritoneum covering the uterus than upon any form of metritis.

A case of menstrual epilepsy has recently been successfully treated by Dr. Wade with bromide of potassium, as recommended by Sir Charles Locock. In cases of vomiting from pregnancy or ovarian irritation, Dr. Wade has used with success Dr. Simpson's remedy—oxalate of cerium.

Dr. Foster, Assistant-Physician to the Queen's Hospital, has introduced a method of treating gastric ulcer purely by rest. He is of opinion that in ulceration of the stomach the abraded surface is ordinarily prevented healing, by

1st. The movements and great change in volume of the stomach necessitated by the ingestion of food.

2nd. The mechanical and chemical irritation to the ulcer produced by the food.

3rd. The solvent action of the gastric juice on the fresh lymph poured out for the repair of the ulcer, and on the weakened tissues forming its periphery and base.

To meet these difficulties Dr. Foster stops the ingestion of food altogether for a given time, and supplies nourishment entirely by enemata. The ulcer is thus placed in a condition for healing precisely as an ulcer on the surface of the skin would be under good treatment. Two cases recently treated by Dr. Foster on this principle have done well.

The first patient was supported by nutritive enemata alone for four days, even at a period when, from the excessive exhaustion consequent on the copious hæmorrhage, the treatment seemed hazardous; but seemed only, for the enemata afforded her sufficient nutriment; and far from feeling more

exhausted, the patient actually rallied a little day by day. The bodily waste was reduced to the minimum by the perfect rest observed, and great relief was felt from the cessation of the wearing and exhausting pain in the stomach. At the end of the four days, as the enemata had caused some irritation about the lower part of the rectum, they were discontinued, and the patient was fed on milk, mixed with lime water. Beef-tea, and, by degrees, the lightest kinds of solid food were allowed, and thus the patient was gradually brought back to her ordinary diet. From the commencement of the treatment the pain disappeared, and during all the time of her fasting did not annoy her at all. Up to the time of her discharge no pain had been felt; in short, no unpleasant symptom marred the slow and sure progress she made towards health. The patient still continues well, and shows herself from time to time on out-patient days.

In the second case the same treatment was adopted, and the patient was kept five days without any nourishment by the mouth, being wholly supported by nutritive enemata. After the first day the pain began to disappear, and, by degrees, left her altogether. During her long fast she felt low and weak at times, but not very hungry; and she bore her protracted abstinence with wonderful patience. Neither the pain nor the vomiting have recurred.

Dr. Foster has here alighted on a scientific method of treating a most troublesome disorder.

Surgical Practice.

Mr. Gamgee, a Surgeon whom London some years ago unfortunately lost, and whom the Queen's Hospital at Birmingham was so fortunate as to secure, has been laboriously pushing forward his method of treating fractures, by immediate reduction under all circumstances, circular compression, and *immobilisation*. His results in practice have been most striking, and promise—nay, must lead to—a revolution in the treatment of fractured limbs. The theory of the practice is that, as solidity is the great essential to the discharge of the functions of the healthy bone, as a column of support and the arm of a lever, fracture, and its attendant mobility, is the cause why these functions can no longer be fulfilled. If so, it follows that, were it possible, after replacing the broken surfaces in accurate apposition, to restore solidity to the bone, it would again be equal to its offices as the arm of a lever and a supporting column. The loss of the requisite solidity and preternatural mobility are synonymous expressions for one and the same condition; and it consequently follows that the fragments once fitted, the consequences of the fracture would cease so soon as an end were put to the preternatural mobility; in other words, so soon as the fragments were rendered immoveable. *Mobility* being the first and great character of the fractured bone, and the immediate cause of its phenomena, it follows that *immobility* should be the condition sought, *immobilisation* the principle of cure, and *immoveable* the means.

Theoretically considering the principle of action of an immoveable apparatus, closely fitting as it does to the elevations and depressions of the limb, the fragments having previously been placed in accurate apposition, it may be said to act the part of an outer skeleton. When a part of the interior bony framework is broken, what more rational than, during its repair, to support the soft parts by an investing shell? This is precisely what a Surgeon does in treating a broken thigh or leg with an immoveable apparatus.

Mr. Gamgee entirely ignores the necessity for the formation of a thick callus in the uniting of a fracture. He maintains that fractures in man sometimes unite by the first intention, that the union as a rule takes place by direct deposit between the broken surfaces, that *provisional* callus is exceptional, aud that, when it does occur, it is owing to extensive injury to the soft parts, at the time of the accident, or to their subsequent irritation by the fragments, when not kept perfectly at rest; whence it follows—that the treatment of a fracture is perfect, in proportion as the thickening at the seat of injury is slight.

The success that has attended Mr. Gamgee's method is very great, and its advantages are numerous. After the fractured ends of the bone are rendered perfectly immovable, he allows the patient to rise from bed, to walk with crutches, and, in a word, to recover his strength as rapidly as a man so placed can. The treatment has been applied as yet mostly in cases of simple fracture, but it has also been put into practice in the treatment of compound and comminuted fractures, and where there is hæmorrhage as a complication. In one case, to take a single example, a muscular man, in full vigour of health, suffered from the fracture, the result of great direct violence of both bones of the leg; the tibia was splintered, the skin was wounded, blood flowed freely outwards and within the substance of the limb, great displacement of the fragments was evidenced by the projection of one through the skin and by shortening of the limb, and, to add to these grave complications, the muscles of the big calf were in a state of violent spasm. Nevertheless, with the treatment employed, the patient, five days after the accident, felt no pain when the leg was lifted up by the foot, and allowed to drop on the bed; he was able to get up and walk on crutches on the eleventh day, and made a complete recovery without an untoward symptom. The starched apparatus has the approval mainly of Mr. Gamgee; plaster of Paris he finds in many instances objectionable, because it is difficult to manage with it in the course of the after treatment.

Mr. Furneaux Jordan has recently had a very successful case of *ovariotomy*. He has introduced certain original details in the operation; for instance, he makes the incision in the abdominal wall close to the pubes, so that if the pedicle of the cyst be retained in the wound it is less affected by traction, as during tympanitic distension the wall of the abdomen is much less implicated at its osseous attachments. He also turns the patient on to the side before the introduction of the trocar – a proceeding which offers the best safeguard against the entrance of fluids into the abdominal cavity.

A few days ago Mr. Furneaux Jordan removed from the bladder of a boy, aged 8, a peculiar hour-glass calculus. Two spheroidal fragments, each weighing a quarter of an ounce, were united by an intervening link of only two lines in diameter. The parts were extracted separately. Mr. Jordan, with Dr. Humphry, of Cambridge, explains the formation in this way. One part is formed in a sacculus and the other at a later period in the bladder. The constricted medium of union corresponds to the orifice of the sacculus. The lad is doing excellently.

For some time Mr. Furneaux Jordan has performed in cases of strangulated hernia an important modification of the ordinary extra-peritoneal operation. By an almost subcutaneous incision, the hernia knife is carried to the edge of the fibrous constricting margin. A very limited incision is made, and it is especially desirable not to carry the point of the knife needlessly beyond the margin of the structure to be divided. Pressure is then made in the direction of the incision, and *not towards the abdomen*. The success of this operation is very marked, and is applicable to all cases except where gangrene is present—a condition which permits of easy recognition. An important feature of the operation is that the inflammable extra-peritoneal tissue is left uninjured.

A case in which a ligature was applied to the external iliac artery recently occurred in the Queen's Hospital under the same Surgeon. Amputation of the thigh by Teale's method had been performed, and at the end of a month secondary hæmorrhage set in with violence from an unhealed corner of the stump on three occasions. All other means having been tried in vain, a ligature was applied to the external iliac artery. All went well for a few days, when a fatal hæmorrhage ensued from an ulcerated aperture close to and, as is usual, on the distal side of the ligature.

A case of bubo within the abdomen, which occurred in the Queen's Hospital, is described by Mr. Jordan. A man with (healing) ulcerative chancres died, apparently, from peritonitis. An abscess was found in the left iliac fossa in the extra-peritoneal fascia; at the bottom of the abscess was an enlarged external iliac gland completely excavated, the cavity being surrounded by rugged margins.

Cases of cleft palate and vesico-vaginal fistula have lately left the Hospital completely cured by operative interference. The staphyloraphy was performed on Mr. Fergusson's plan. After successful closure of the vesico-vaginal fistula in one case, a small vesico-uterine fistula was discovered. The inconvenience from this was very slight and only occasional; and as the patient was still young, Mr. Jordan did not deem it desirable to close the os uteri.

Ligature of the Common Carotid Artery in Progressing Compression of the Brain from Rupture of the Middle Meningeal Artery.—Several months ago Mr. Jordan proposed this treatment for a class of cases not infrequent—nor, in many instances, difficult to recognise. So far, such cases have been practically without treatment, and are invariably fatal. He will resort to the treatment he proposes in the first opportune case.

Resection of the elbow is followed in the Queen's Hospital by strong and completely-moveable joints for two reasons: no splint of any kind is used, and pressure motion is commenced not later than the tenth day. One of Mr. Jordan's patients can with his new joint perform every movement required in the examination of recruits—flexion, extension, and pronation.

In the numerous cases of acquired and hereditary syphilis in the out-patient rooms, Mr. Jordan has carefully noted that the only thoroughly bad cases—with diseased bones, sloughing, etc.—have been those *where not a particle of mercury* has been taken. There is no remedy in medicine more certain and wonderful in its results, he considers, than mercury properly given in properly selected cases.

Mr. West has recently had a case in which it is shown what severe Surgical manipulation may be carried out in the cavity of the peritoneum without serious results. The case in question was that of a girl, aged 23 years. A swelling was first observed nine years ago in the left iliac region, and appeared to grow from below upwards. In 1859 the tumour suddenly disappeared, and an attack of peritonitis occurred coincidently with its disappearance. It was thought that an ovarian tumour had burst into the peritoneal cavity, and that the fluid so discharged had thus excited inflammation.

She recovered from this attack, and followed her occupation of bootbinding until the beginning of 1864, when she again entered the Hospital. A tumour as large as a clenched fist, scarcely at all moveable, and that only from side to side, dull on percussion, and tender upon pressure, was found in the left iliac fossa. On March 3 it was considered justifiable to yield to the patient's urgent wish that the tumour should be removed. Mr. West therefore made an incision four inches in lengh in the median line through the abdominal wall, and having opened the peritoneal cavity, discovered a hydatid tumour as large as a good sized coacoanut, smooth, tense, and attached along its whole extent by a broad band of omentum, which held it firmly in the left iliac fossa and prevented its rolling about.

Although the nature of the tumour at once became apparent, he thought it right to remove it, particularly as he could at that time discover no other hydatid tumour in the omentum. The attached portion of the omentum was fixed by a silver suture in the upper part of the wound, and a clamp then applied around it. The wound, which was closed by three deep and four superficial silver sutures, healed rapidly. The "pedicle" separated on the fourteenth day, and at the end of three weeks the patient was able to walk about the ward.

A fresh development of hydatids took place in the course of the year, and their progress has been continuous up to the present time. The size of the abdomen is now enormous; the bowels are only relieved about once a week, and then only by the strongest enemata; the urine requires to be drawn off two or three times a day by the catheter; the œdema of the legs is so great as to threaten sloughing from pressure if the patient attempts to walk about.

In the *Medical Times and Gazette* of December 3, 1859, Dr. Simpson has referred to this form of case as one of the most difficult to diagnose from ovarian disease.

Mr. West has under his care a case of epithelial cancer affecting the right side of the head in a patient aged 22. There is no hereditary tendency to the disorder. It commenced five years ago as a pimple inside the ear, which he "picked."

In the treatment of hernia for the radical cure, Mr. West has given up Wutzer's method, having found that a relapse almost always occurred. He has followed out lately Mr. Wood's plan, and has performed Wood's operation fifty times with *one* fatal case. The patient who died refused to have chloroform, and strained very much during the operation. The intestine was thus forced down low into the canal, and was probably pricked by the needle. Death occurred from peritonitis.

Mr. Wilders, who has recently been appointed Assistant-Surgeon to the Hospital, uses moist mercurial fumigations in both primary and secondary syphilis. His method of administering the fumigation is very simple. He fills a basin with hot water, and places a spirit-lamp underneath, the mercury being put on a tin plate with a spirit-lamp below it. The patient is placed on a cane-bottomed chair, and a large, strong crinoline covered with a thick blanket is put over him. In the treatment of primary syphilis Mr. Wilders prefers calomel or iodide of mercury for fumigation; while in the skin eruptions of secondary syphilis he finds cinnabar (as recommended by Mr. Langston Parker) most efficacious.

In plastic operations, as in the operation for perineal laceration, Mr. Wilders uses deep interrupted silver wire sutures. He finds these to cause less irritation than the quilled or any other suture.

REVIEWS.

Clinical Observations on Functional Nervous Disorders. By C. Handfield Jones, M.B. (Cantab.), F.R.C.P. (Lond.), F.R.S., Physician to St. Mary's Hospital. Churchill and Sons. 1864. Pp. 585.

This is one of the most important and valuable works which the Medical press has produced this season. We all know how loose our phraseology is in all that relates to functional disturbance—how often a term is used to express a disturbance which merely corresponds with its apparent nature, and yet involves an idea which is really pathological. The tendency of Dr. Jones' book is to give to our ideas of functional disturbance some of that precision in which they are so grievously wanting, and to pave the way for the employment of more accurate terms when the ideas to which they should correspond become habitual to the professional mind. There can be no question that as the labours of Baillie and the pathological anatomists of his day, and those which succeeded him, gave precision to the doctrines of solidism, and as those of modern chemical Physicians have placed humoral pathology upon a basis of fact, so the present tendency is to investigate what we mean when we speak of vital force and nervous energy; all three classes of inquiries thus lending their aid to build up a substantial fabric in which every phenomenon of disease shall find its proper niche, and in which its true relation to every other shall be manifest. It is as a contribution to this good work that we hail the appearance of this book from the pen of one of our most accomplished Physicians and, at the same time, one of our most distinguished physiologists. What is neuralgia? what is hysteria? what is sciatica? what is epilepsy? what is the strict pathology of diseases the names of which are "classic," but of whose true nature we may safely affirm that we know positively little, just in proportion to our readiness to distinguish them at the bed-side, and to assign to each case its appropriate designation? And then, as to our treatment of these diseases. We are amongst those who regard therapeutics as an empirical art—empirical in its origin, empirical in its habitual practice,—but yet we hold that the empiricism of the Physician differs from that of the quack in the fact that the former is an enlightened empiricism, while the latter is irrational and dark. Often, indeed, alas! the ray of light which guides the intelligent Practitioner is but a glimmer; but still it is light. It is well for those who know how to use, without abusing it; who will patiently avail themselves of the broad features which it reveals without drawing upon their imagination to fill up the details which it necessarily leaves undefined. Patiently! for such a work as this is calculated to bring into view the mode of operation of many of those remedies which experience has taught us to value, while it encourages us to hope on and to work on until the good time comes, when empiricism and rationalism shall no longer be ranged in antagonistic schools, but when the Physician shall be able to state clearly the physiological grounds on which he anticipates the success of each remedy he prescribes for the relief of the sick.

All that our space will permit us to do in reviewing this work is to point out its plan, leaving our readers to study the work itself, as they must do if they would keep pace in any degree with the march of Medical science. Essentially, then, it is a record of experience—the experience of a man who is thoughtful, and asks "Why?" It contains more or less complete reports of 185 cases of functional disease. Like other thoughtful men, the author has arrived at the conclusion that diseases are not uniform entities, but varying and inconstant pathological conditions. He also has arrived at the conclusion that it is a hopeless attempt to determine the natural history of disease—a conclusion, however, in which we cannot altogether agree with him, inasmuch as he bases it upon the inconstancy of morbid phenomena; while we, on the other hand, hold that this very inconstancy has its causes, and that the investigation of these causes and their results constitutes one portion of the natural history which it is sought to acquire. At the commencement of the volume the author furnishes a chapter upon general pathology, the special application of which he finds in the morbid states which are discussed in the

rest of the volume. And inasmuch as the very nature of functional pathology debars the inquirer from the aids which structural pathology derives from the examination of organs after death, most of his conclusions are derived from reasonings based upon physiological data, assisted by the obvious operation of accepted remedies. "I have necessarily been led," he writes, "to set much value on the results of treatment as indications of the essential nature of a disease, in which I am supported by no less a name than Gooch, and this will explain why I have recorded few cases except those in which some definite conclusions can be drawn from the action of remedies."—*Preface.* In the chapter on general pathology Dr. H. Jones discusses among other subjects what has been termed "inhibitory influence," instances of which are familiar to Medical men who have been accustomed to regard them as in some way connected with reflex action. Such cases as local paralysis, the result of tænia or a portion of dead bone in a distant part of the body, amaurosis from irritation of the dental nerves, and cured by the extraction of a tooth, etc., would illustrate this action. Brown-Séquard, indeed, does thus account for these phenomena. With him they are instances of reflex paralysis, the irritation being reflected upon the nerves of the vessels supplying certain portions of the nervous system. The objections of Dr. Jones to the views of Brown-Séquard are thus stated:—"1. It is difficult to suppose that a spasm of reflex origin should be limited to such a very small extent of vessels as would be involved in some instances—*e.g.*, palsy of one sixth nerve, ptosis of one eye. 2nd. It is almost impossible to believe that a contraction of vessels should be so persistent as the hypothesis requires. Can we suppose in the case of amaurosis above cited that the arteria centralis retinæ was spasmodically occluded for thirteen months? 3rd. It has been found by Gull that irritation of the renal nerves does not cause contraction of the vessels of the spinal cord nor paralysis of the lower limbs, as Brown-Séquard stated in explanation of the paraplegia from renal disease. 4th. In some cases of paralysis from exposure to cold and wet, the paralysis continues long after the exciting cause has ceased, and is removed by stimuli applied to the sensory cutaneous surface. Here the paralysis must be non-organic; and yet it can scarcely be supposed to depend on anæmia of the centres resulting from arterial spasm. On the other hand, it is intelligible that the nerve-cells might be thrown into a state of enfeebled action by the cold, etc., from which they could not easily recover. These cases, though not typically inhibitory, seem to me very illustrative of the nature of the morbid action."—P. 13.

In this same chapter the author also discusses from his point of view the pathology of fevers, and argues in favour of non-organic neuralgia being a sign of nerve debility, from its obvious association with other symptoms which point to this as the essential character of the general disturbance of the nervous system.

We should have been glad to have followed Dr. H. Jones through that portion of his book in which he treats of special forms of functional disturbances, especially as this is the portion which, from its practical character, will be regarded with the greatest interest. Still this is in itself a sufficient excuse for our neglecting to do so, for the book *must* be read. We have said enough to indicate our opinion of its merits.

PROGRESS OF MEDICAL SCIENCE.

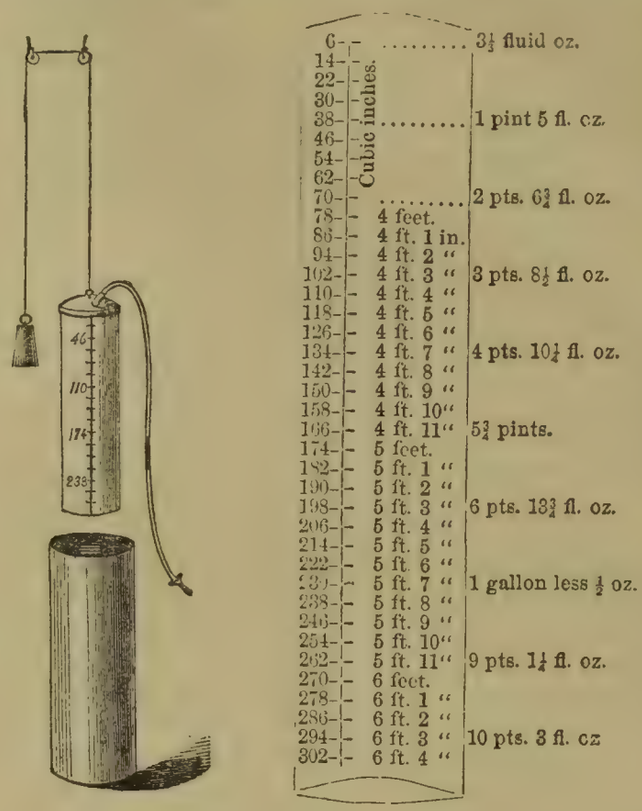
Selections from Foreign Journals.

A CHEAP SPIROMETER.

By W. E. BOWMAN, M.D.

A CHEAP spirometer may readily be made from two tin vessels similar in shape to the one figured in the accompanying wood-cut; the one should be about 20 inches long and 6 inches in diameter, and the other 18 inches long and 5 inches in diameter. The latter may be graduated into spaces of 8 cubic inches by means of our ordinary gallon measure, which is the old wine measure of Great Britain, and the one that is adopted by the United States Pharmacopœia; it consists, as everybody knows, of 8 pints of 16 ounces each, the ounce measuring 1·8 cubic inches.

Having placed the smaller vessel perfectly upright, measure into it a gallon of water less half an ounce, and with a rule ascertain the precise distance from the surface of the liquid to the brim of the vessel; then, placing this measure outside of the tin, mark the height of the water as 230 c. in. In a similar manner with half a gallon and 10¼ fluid ounces, mark 134 c. in.



Next, divide the space between these two points into 12 equal parts, which will be measures of 8 c. inches each, and with the compasses continue the graduation upwards and downwards, placing the figures on the inverted vessel as here shown. If its diameter be everywhere alike, the measure must be correct; its accuracy, however, may be readily tested by the annexed subdivisions of the same measure. The pulleys and counterpoise may now be adjusted to the graduated tin.

Next, fill the larger vessel with water, so that the smaller may be just covered when inserted as low as possible into it, and mark the height of the water on the inside of the larger tin. Then raise the small one gently until the 174 c. inch line appears even with the surface of the water, and make a second mark of its level. Finally, put the third graduation in the large tin when the smaller is raised completely out of it.

Lastly, affix two or three feet of flexible tubing and a mouth-piece to the top of the small tin, and the spirometer will be ready for use.

The graduation inside of the larger vessel is to detect and obviate any difference in the level of the water within and outside of the rising vessel, which, after receiving the breath, should be depressed until the water is at its proper level, the tube being closed by the fingers during the adjustment and reading off.

With this scale as a guide, the York Glass Company of England has made me a beautiful spirometer of this form entirely of glass, and correctly graduated into cubic inches. It differs somewhat from this one in having a perforated glass stopper in the centre, to which the silk-covered tubing is attached; and also in having two cords, one each side of the stopper, and four pulleys, which prevent it from turning. Thus arranged and mounted on handsome brackets, apart from its usefulness in ascertaining the presence and progress of phthisis, it forms an elegant addition to a surgery.—*Canada Lancet.*

POOR-LAW BILLS.—Two Poor-law Bills are passing through Parliament. One is for payment in future by the Metropolitan Board of Works (out of their general rate) of the expenditure in the various metropolitan unions in the relief of destitute wayfarers, wanderers, or foundlings during the night, the Poor-law Board to settle what shall be allowed for lodging where vagrant wards have been established. The other bill provides that in reckoning the three years' residence which confers irremovability time of residence in the parish of settlement shall not be excluded if it is in the same union.

GENERAL CORRESPONDENCE.

MR. FERGUSSON'S LECTURES—EXCISION OF THE KNEE-JOINT.

LETTER FROM MR. E. L. HUSSEY.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the lectures which Mr. Fergusson has just delivered at the Royal College of Surgeons, he has spoken of the excellence and success of excision of the articulation in diseases of the knee; and he talks of the great personal interest he takes in the operation.

Will you allow me, through your columns, to inquire of him whether he thinks such an operation—as a mode of treatment—is better than that recommended by his predecessor (Mr. Hilton), and in what respects he commends it in preference?

With some considerable field of observation in public and private practice, I can speak with confidence of the excellence of the treatment by rest and position. The principles of curative treatment which were long ago recommended by Mr. Abernethy and Sir Benjamin Brodie have been more lately enunciated with earnestness by Mr. Hilton; and he has supplied, more efficiently and with more minuteness than any preceding writer, the particulars of every matter of detail necessary for conducting the patient to recovery.

In estimating the success of the operation he so strongly recommends, Mr. Fergusson leaves out of sight altogether the patients who are treated by rest and position and constitutional treatment, without undergoing any operation. "It is a question of a totally different kind," he says.

In a well-managed Hospital the extirpation of a large articulation, such as the knee, may be—perhaps is—less fatal as an operation, and less unsightly in the resulting deformity, than the older operation of amputation through the thigh. But a large number of the members of the College believe that neither of these operations is justifiable (Surgically speaking) when the patient can obtain a more useful limb without undergoing either of these questionable remedies for his disease, that a small number only of the cases which come before a Surgeon can with justice be classed as "incurable," and that the true mode of making a comparison—"the true parallel, the true value of excision of the knee,"—does not consist in leaving out of the question the very large class of patients who regain a useful limb without the help of eradicating treatment.

I am, &c.,

Oxford, July. E. L. HUSSEY.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JUNE 28.

Mr. PARTRIDGE, President.

(Continued from page 104.)

Mr. J. A. KINGDON read a paper on

THE CAUSES OF HERNIA.

The object of the paper was to call in question the accuracy of the prevailing opinions concerning the causes of hernia. Instead of its being due almost entirely to mechanical causes, as most writers since the time of Scarpa have held, the author endeavoured to prove that hernia was the result of an abnormal condition of the peritoneum in its entirety, either from congenital malformation or inherent disposition to be relaxed. Without disputing the majority of the arguments that favoured the mechanical theory, the author attempted to show that mechanical causes could not operate without antecedent derangement of the peritoneum. So long as the mesenteries remained unrelaxed, in healthy bone, and with their normal attachments, the author held that hernia not only did not, but could not, occur, and that there was no disposable force that could stretch the mesenteries and dislodge the viscera. But when, from congenital defect or subsequent derangement, the mesenteries allowed the intestines to descend in the cavity of the abdomen below their proper sphere, then mechanical causes could act—then the arguments of those who advocated the mechanical theory would apply; protrusion would then be due to loss of equilibrium between the muscular parietes and the rings, but not till then. The author further attempted to show that hernia was fundamentally an affection of the peritoneum generally, by pointing out that the condition of the parietal layer determined the kind of hernia—*i. e.*, the aperture through which it escaped. The facts and arguments in support of these views were set forth in the paper.

A paper, by Dr. WILSON FOX, was read

ON THE ORIGIN, STRUCTURE, AND MODE OF DEVELOPMENT OF THE MULTILOCULAR CYSTS OF THE OVARIES.

The first division of the paper consists of a *résumé* of the views hitherto held with regard to the origin of these cysts. The author considers that the opinions hitherto expressed on this point may be divided into two chief classes. 1. Those which attribute the cysts of the ovary either to morbidly affected Graafian vesicles, or to secondary formations from these structures. 2. Those which ascribe the multilocular forms to a morbid process arising in the stroma of the ovary, independently of the Graafian vesicles. Under the second category there is a great variety and discrepancy of opinions. With regard to the former, it has long been doubted whether the number of the Graafian follicles normally existing in the ovary is sufficient to account for the whole of the cysts sometimes found in these tumours; while the proof of any fresh formation of Graafian vesicles taking place in the adult has hitherto been of a very dubious kind, nor has any account been furnished of the mode in which secondary cyst formations proceed from them. The author has studied these conditions in fifteen of the so-called "colloid cysts" of the ovary, for the opportunities of examining most of which he has been indebted to the kindness of Mr. Spencer Wells. He believes that all primary cysts of the ovary originate in the destruction of the ovum and subsequent accumulations of fluid in the follicle, the membrana granulosa acting as a secreting structure. From these cysts secondary cysts may originate in various ways, all of which, however, may be referred to one common type. Class A.—Cysts give off long tubular processes, lined by an epithelium similar to that of the cyst whence they spring; one cyst may give off two or three such processes at various parts of its circumference. These undergo constrictions in their course, and thus form secondary cysts. These processes and the cysts from which they spring are most easily found in the more dense parts of the stroma. Class B.—Thin-walled cysts give off diverticula analogous to those by which the lungs, the thyroid, and some other glandular organs, both of the gusto-pulmonary and genito-urinary system, originate in the embryo. These diverticula, which open by a narrow neck into the cavity of the parent cyst, expand as large pouches on its external surface, protruding into other and adjacent cysts. The neck may either expand into a large opening or may become constricted, in which latter case the original communication is destroyed. One cyst may in this manner give off numerous diverticula. These varieties (A and B) usually coexist in different parts of the same tumour. They were found by the author in three out of the fifteen tumours examined by him. They give rise to very compound structures, but not to the dense masses to which the names of "alveolar degeneration," "cystoid disease," and "adenoid tumours" of the ovary have been given. This variety (or Class C) results from the formation, on the inner surface of the cyst wall, of a series of tubular glands, analogous to those of the uterus, or the crypts of Lieberkühn, or the glands of the stomach. They are formed by the (1) epithelium lining, the parent cyst becoming stratified, and in its superficial layers assuming a columnar character. (2) Into this stratified epithelium, papillæ formed of connective tissue spring from the stroma of the ovary, in each of which a loop of vessels is formed. A series of densely-clustered villi is thus produced, which are converted into tubular glands by the growth upwards around these bases of the stroma of the ovary. The glands may become compound at their bases by secondary villi arising in them. They may be converted into simple cysts by the closure of their orifices; but more commonly the upward growth of the stroma surpasses that of the villi in which their summits end, and the glands become completely shut off and enclosed in the stroma, forming groups of a very compound form, of tubular structure, lined by a secreting epithelium embedded in the wall of the parent cyst. When distended by further secretion they form the smaller

and larger multilocular cysts scattered on the inner wall of the parent cyst. Other modes of cyst-formation resulting in dense cystoid masses were traced by the author to these structures. Class D refers to the cyst found in the cauliflower papillary or dendritic growths which spring from the interior of parent cysts. These growths originate in a number of delicate papillæ growing from a common basis, and uniting to form larger masses. They consist of a delicate stroma, derived from that of a parent cyst-wall, a loop of vessels, and a covering of epithelium. The irregularity of their growth causes spaces to be enclosed by them, lined by a secreting epithelium, and which, when completely shut off, become cysts. Various illustrations were given of this process. The author considers that in no case are the secondary cysts in the cauliflower growths of the ovary derived from single epithelium cells. The author then referred to the observations of Drs. Pflüger and Billroth on the origin of the Graafian follicles from tubular structures found in the embryonic condition of the ovary; and though not fully able to corroborate all Dr. Pflüger's views from his own observations, he has convinced himself that the Graafian follicles originate in tubular structures. He regards these cysts as resulting from a renewal in the adult of the early mode of development of the Graafian vesicle with various morbid aberrations from the type of embryonic growth, and thinks they must therefore be placed in the same category with other cystic tumours growing in structures having tubular glands and ducts, especially with those of the mamma, testicle, and thyroid gland. He regards the cysts mentioned under Class D as presenting essentially the same type, inasmuch as the large papillary and cauliflower masses can only be regarded, similarly to the Haversian fringes of synovial membranes, as everted glandular structures. He has not had any opportunities of examining any multilocular cysts of the ovary containing dermoid structures; but, inasmuch as these have been shown to contain both normal hair follicles and sebaceous and sudoriparous glands—all of which structures are the frequent seat of cyst formations—he believes that they will be proved to follow the same laws of growth as the colloid cysts. The author, from chemical examinations of the fluid contents of the cysts, has been led to regard the so-called colloid matter found in them, as the result of alterations depending on the varying conditions of pressure under which they are secreted from the inner surface; and he believes that this matter cannot be considered as the result of any special form of degeneration of the tissue of the ovary. The method which the author has pursued in studying the development of the cysts of the Classes A C D has been to make sections in the recent state with a Valentin's knife through various parts of the stroma. The glands of Class C are best displayed by sections made vertically to the inner surface of the cyst-wall. Observations on Classes C and D are much facilitated by hardening the tissues in chromic acid solution of 2 per cent., and subsequently treating sections made by a sharp razor with liquor of soda and glycerine.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JUNE 1.

Dr. OLDHAM, President.

THE following gentlemen were elected Fellows of the Society:—Dr. Waller Balls; Dr. A. Wahltuch, Manchester; and Dr. W. B. Woodman, London Hospital.

Dr. HALL DAVIS showed a Craniotomy Forceps, whose blade fenestrated, of the form of a very elongated horse-shoe. It was composed of two parts, male and female; the former serrated deeply, the serrations pointing backwards, and fitting into the depression in the female part. The lock like Naëgelé's, and the handles fastening by a spring and rack at their extremities. This instrument he had tested practically, and found it answered admirably.

Dr. MEADOWS exhibited a Bandage, which he recommended in place of the jack-towel usually applied after labour. It was made of stout calico, shaped to the abdomen and hips, having one bone for extra support in front. When adjusted, it could be fastened firmly either by bracket or laced like a corset, the advantages being facility of application, combined with comfort and greater efficiency.

Drs. Routh, Oldham, Rogers, Graily Hewitt, and Meadows discussed some points connected with bandaging after labour.

A paper, by Dr. AVELING, was read

ON IMMEDIATE TRANSFUSION.

The author stated that transfusion had been performed now for two hundred years, and that for the first hundred and sixty years of that time the immediate method had been solely employed. He described the numerous forms of immediate apparatus hitherto used, and pointed out their faults and advantages. He also exhibited an instrument of his own, which consists of two small silver tubes to enter the recipient and emittent vessels, and of an india-rubber tube to connect them. This has in its centre a small elastic receptacle holding about two drachms, by compressing and relaxing which the blood is made to circulate through the tube, and the quantity passing is measured. He believed that there was less chance of coagulation by the immediate method, and that it had advantages over the mediate mode. The blood was not exposed to the air; the operation was uninterrupted and the closest imitation of nature.

Dr. CLEVELAND thought there would be danger of introducing air in the apparatus shown by Dr. Aveling, which was not transparent.

Dr. GRAILY HEWITT said the subject brought before the Society by Dr. Aveling was one of great importance, and one moreover in which he was individually much interested. In the course of last year he (Dr. Graily Hewitt) had brought the subject of transfusion before the Profession in a paper read at the annual meeting of the British Medical Association held at Bristol, and he had exhibited at that meeting the apparatus for the performance of transfusion which he now begged to lay before the Obstetrical Society. He would remark that the great desideratum in an apparatus for transfusion adapted for use in obstetric emergencies was a simple, certain, and ready means of conveying the blood. The instrument which he had contrived fulfilled, he believed, these indications, and he had had an opportunity of using this instrument only a short time since in the case of a poor woman dying from loss of blood connected with placenta prævia. The instrument acted admirably, and by its means he was enabled to transfuse two successive portions of blood. The operation was unfortunately delayed, as it proved, a little too long, and the patient failed to derive benefit from the operation; but the experience afforded by the case was such as to justify him in expecting the best possible results from its use in similar emergencies. The apparatus devised by Dr. Aveling, which in principle, he believed, resembled one that had been recommended by Dr. Richardson, was, he considered, objectionable for a variety of reasons. The want of transparency prevented the observer ascertaining what was going on in the tube; it was not easy to connect, off-hand, the tube with the vein of the individual supplying the blood; and, further, it would be found very objectionable to bring the individual supplying the blood into close proximity with the individual dying from loss of blood. The person supplying the blood was often, in obstetric practice, the husband of the patient; and, unless under very exceptional circumstances, the nerve and fortitude of the individual in question would be likely so to break down as to interfere with the carrying on of the operation. For these reasons, therefore, he believed that, however ingeniously contrived, the "immediate" method could not become a practical operation. The instrument he (Dr. Graily Hewitt) had employed—constructed for him by Messrs. Whicker and Blaise—was a two-ounce glass cylinder, fitted at one end with a piston and rod, and at the other adapted to the tube entering the vein of the patient. The blood was received into the syringe itself, the piston being removed for this purpose, and the blood was then injected. The peculiarity of the instrument was that the blood was received directly into the syringe, without the necessity for a funnel or other apparatus; and the exposure of the blood to the air and to foreign objects—which hastened coagulation—was thus reduced to a minimum. The operation of transfusion required forethought and arrangement, and accurate appreciation of the difficulties surrounding its performance. These difficulties he had endeavoured to point out and to obviate, in the paper to which he had already alluded.

Dr. EASTLAKE was able to confirm Dr. Graily Hewitt's statement as to the applicability and value of this instrument, having assisted Dr. Hewitt at the operation in question. It would have been impossible in this case to have brought the husband, who supplied the blood, to the bed-side. His nervousness and agitation under such circumstances would probably have prevented the performance of the operation.

Dr. BRAXTON HICKS hoped he should be able some day to

bring before the Society a plan which he had employed with success in the lower animals, and also in a case of hæmorrhage in a lady. The principle of its action was to prevent fibrillation, thereby doing away with the greatest difficulty attending the operation.

Dr. AVELING, in reply, would remind the Society that the operation of transfusion had been successfully performed by the simplest means—such as quills; and he differed from Dr. Graily Hewitt in his estimate of the difficulties of the operation.

Dr. GREENHALGH read a paper on "Placenta Prævia," the discussion upon which was adjourned till next meeting.

An abstract of this paper will appear in the report of the next meeting.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary Examinations for the Diploma, were admitted Members of the College, at a meeting of the Court of Examiners, on the 26th inst.:—

George Henry Hills, Old Kent-road; Thomas Collier, Bridgend, Glamorganshire; George Henry Savage, Brighton; Henry James Dwelly, Wandsworth; John Coryton Roberts, Peckham; Richard Rothwell Daglish, Wigan; and Charles Edward Blair, Wandsworth, Students of Guy's Hospital; Augustus Square May, Plymouth; Alexander Hampton Breiver, Victoria, Monmouthshire; Thomas Henry Whitehouse Davies, Stroud; and George Covey, Basingstoke, of St. Bartholomew's Hospital; Walter Hugo Reed, Tiverton, Devon, and Thomas Henry Morris, Spalding, of St. Thomas's Hospital; John Hamilton Craigie, Finsbury-square, London Hospital; Frederick Turner, Buxton, University College; John Challen Duke, Leominster, Sussex, King's College; William Foster Vise, Middlesex Hospital; John Hargreave Wraith, L.S.A., Over Darwen; George Gill, Liverpool; John Hawkinson Gornall, Liverpool; John Moore Fisher, Hull; John Hedley, Newcastle; Wm. Matthew Benton, Shotley-bridge; Thos. Laffan, Dublin; and James More, Rothwell, Northamptonshire.

Admitted Members on the 27th inst:—

Messrs. Alfred Edward Wilmot, Ryde, Isle of Wight; William Thomas Hurd Wood, Notting-hill; Ebenezer Fulham Turner, Upper Clapton, and Ernest Last Fyson, Exning, near Newmarket, students of Guy's Hospital. Paulin Martin, L.S.A., Abingdon; Thomas Edward Roberts, Gibraltar; Thomas Fairbank, Islington; James Francis Hamilton Richardson, Down, Kent, and Henry Cripps Lawrence, Surbiton, of St. Bartholomew's Hospital; Lewis Wayne Morgan, Hafod, Glamorganshire, and William Bailey, L.S.A., Tipton, Staffordshire, of St. Thomas' Hospital. Stephenson Moreton Wightman Wilson, Mowsley, Leicestershire, and William Henry Harding, Wormley, Herts, of King's College. Charles Edward Heron Rogers, Westmeon, Hants, of the Middlesex Hospital; Joseph Edward Collingwood, Corby, Lincolnshire, of St. George's Hospital; Charles James Wright, Wakefield; Henry Barnes, Wigton, Cumberland; Richard Carter Goddard, Stockport; David Renton, M.D. Edin., Madeira; Thomas Renny Strachan Nivison, Edinburgh, and Joseph Hiram Shearwood, Spilsby, Lincolnshire.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, July 21, 1864:—

William Melville Knipe, Guy's Hospital; Richard Jackson, Birmingham; William Cubitt Lucey, Bermondsey; Philip Brookes Mason, Burton-on-Trent; William Frederick Ruttledge, London Hospital; Roderick William Henderson, Lower Halliford, Middlesex; William Yates, 20, Richmond-green.

The following gentlemen, also on the same day, passed their First Examination:—

Thomas Charles Murphy, University College; William John Laud, St. Mary's Hospital; William Le Gros Denziloe, St. Mary's Hospital; James Copland Worthington, Middlesex Hospital; William Griffith Jones, Middlesex Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BELL, JAMES B., M.R.C.S. Eng., has been appointed one of the Assistant Dental Surgeons to the Middlesex Hospital.

BLICK, THOMAS E., M.R.C.S. Eng., has been appointed House Surgeon to the Liverpool Workhouse Infirmary.

COLLES, JOHN, A. P., M.D. St. And., has been appointed to officiate as Professor of Anatomy, &c., &c., in the Medical College, Calcutta.

COOK, JAMES J., L.F.P. and S. Glasg., has been appointed Assistant Medical officer at the Liverpool Workhouse.

DIVER, THOMAS, M.D. St. And., has been appointed Coroner for Bombay.

LOANE, JOHN, M.R.C.S. Eng., has been appointed Assistant-Surgeon to the 1st Administrative Battalion of Tower Hamlets Rifle Volunteers.

MC GREEVY, NEIL, L.R.C.S. Edin., has been appointed Apothecary to the Workhouse of the Drogheda Union.

SEQUEIRA, JAMES SCOTT, M.R.C.S. Eng., L.S.A. has been appointed Medical Officer and Public Vaccinator to the South West District of the Whitechapel Union.

TURNER, JAMES S., M.R.C.S. Eng., has been appointed one of the Assistant Dental Surgeons to Middlesex Hospital.

DEATHS.

AMMER, NIKOLOUS, M.D., at P Presbury, Hungary on July 9, aged 56.

BATEMAN, JOHN ALFRED, M.R.C.S. Eng., at 174, High-street, Shadwell, E., on July 17, aged 46.

DON, JAMES, M.D., at Bearchill, Brechin, Forfarshire, on July 18, late Surgeon General Bombay Army.

ELLIOT, GEORGE, M.R.C.S. Eng., at Aspatria, Cumberland, on July 16, aged 68.

JONES, T. R., M.D., of Aberystwith, Cardiganshire, on July 7, aged 35.

THE COLLEGE OF PHYSICIANS AND THE "AD EUNDUM" DEGREE.—We have authority for stating that the Council of the College, to whom the several memorials on this question were referred, has resolved to advise the College not to grant the *ad eundem* degree of Licentiate.

SIR CHARLES LYELL A BARONET. — Whitehall, July 21. —The Queen has been pleased to direct letters patent to be passed under the Great Seal, granting the dignity of a baronet of the United Kingdom of Great Britain and Ireland unto Sir Charles Lyell, of Kinnordy, in the county of Forfar, Knight, and the heirs male of his body lawfully begotten.—*From the London Gazette, Friday, July* 22.

COLLEGIATE EXAMINATIONS.—At the last primary or anatomical and physiological examination at the College of Surgeons, no less than twenty candidates out of thirty-eight examined the first day were rejected, and on the following day seven out of twenty-four, making a total of twenty-seven out of sixty-two.

CONTAGIOUS DISEASES BILL.

THE following are the principal provisions of the Contagious Diseases Bill, as amended by the Select Committee:—

The Admiralty and the Secretary of State for War shall, on the passing of this Act, appoint a superior Medical officer of her Majesty's navy or army to be, during pleasure, Inspector of Hospitals certified under this Act, and may from time to time, on the death, resignation, or removal from office of any such inspector, appoint another such officer in his stead.

On the application of the authorities having the direction or management of any Hospital desiring that such Hospital should be certified under this Act, the Admiralty and the Secretary of State for War may direct the Inspector of Hospitals to examine and report to them on the condition of that Hospital, and on the regulations established for its direction and management.

If on such examination and report the Hospital appears to the Admiralty and the Secretary of State for War to be useful and efficient for the purposes of this Act, and is certified in writing to be so by the Admiralty and the Secretary of State for War, the same shall be deemed a certified Hospital for the purposes of this Act, and every such Hospital is in this Act referred to as a certified Hospital.

The Inspector shall, from time to time, visit and inspect every certified Hospital.

If on the report of the Inspector respecting any certified Hospital the Admiralty and the Secretary of State for War think proper to withdraw their certificate, that Hospital shall thereupon cease to be a certified Hospital for the purposes of this Act.

Where an information, in the form given in the second Schedule to this Act, or to the like effect, is laid before a Justice of the Peace by a superintendent or inspector of police or constabulary authorised to act in any place to which this Act applies, or by any Medical Practitioner duly registered as such, the justice may, if he thinks fit, issue to the woman named in the information a notice in the form given in the same Schedule, or to the like effect.

A constable or other peace officer shall serve such notice on the woman to whom it is directed, by delivering the same to her personally, or by leaving the same with some person for her at her last or usual place of abode.

In either of the following cases, namely,—

(1.) If the woman on whom such notice is served appears herself, or by some person on her behalf, at the time and place appointed in the notice, or at some other time and place appointed by adjournment;

(2.) If she does not so appear, and it is shown (on oath or affirmation) to the justice present that the notice was served on her a reasonable time before the time appointed for her appearance, or that reasonable notice of such adjournment was given to her (as the case may be): the justice present, on oath or affirmation being made before him substantiating the matter of the information to his satisfaction, may, if he thinks fit, order such woman to be taken to a certified Hospital for Medical examination.

Such order shall be a sufficient warrant for any constable or peace officer to whom the order is delivered, to apprehend such woman, and to convey her with all practicable speed to the Hospital therein named, and for the authorities of the Hospital to cause her to be examined by some Medical officer of such Hospital, for the purpose of ascertaining whether or not she has a contagious disease, and in case, on such examination, it is ascertained that she has a contagious disease, then to detain her in the Hospital for twenty-four hours from the time of her being brought there.

Within the said period of twenty-four hours, the authorities of such Hospital shall cause a certificate, signed by the Medical officer who has made such examination, stating (if the fact be so) that on such examination it has been ascertained that such woman has a contagious disease, to be made out and laid before the justice by whom the order was made, or some other justice having the like jurisdiction; and thereupon such justice may, if he thinks fit, order the authorities of such Hospital to detain such woman in the Hospital for Medical treatment until discharged by such authorities, and such authorities shall detain her accordingly.

If any woman ordered as aforesaid to be taken to a certified Hospital for Medical examination refuses to submit to such examination, or if any woman ordered to be detained in a certified Hospital for Medical treat-

ment refuses or wilfully neglects, while in the Hospital, to conform to the regulations thereof, or quits the Hospital without being discharged from the same as aforesaid, every such woman shall be guilty of an offence against this Act, and on summary conviction thereof before two or more Justices of the Peace shall be liable to imprisonment, in the case of a first offence, for any term not exceeding one month, and in the case of a second or any subsequent offence for any term not exceeding two months.

If any person, being the owner or occupier of any house, room, or place within the limits of any place to which this Act applies, or being a manager or assistant in the management thereof, induces or knowingly suffers any common prostitute having a contagious disease to resort to or be in such house, room, or place for the purpose of prostitution, every such person shall be guilty of an offence against this Act, and on summary conviction thereof before two or more justices of the peace shall be liable to a penalty not exceeding ten pounds, or, at the discretion of the justices, to be imprisoned for any term not exceeding three months, with or without hard labour.

Provided that a conviction under this enactment shall not exempt the offender from any penal or other consequences to which he or she may be liable for keeping or being concerned in keeping a bawdy house or disorderly house, or for the nuisance thereby occasioned.

For the protection of persons acting in the execution of this Act,—all actions and prosecutions against any person for anything done in pursuance or execution or intended execution of this Act shall be laid and tried in the county where the fact was committed, and shall be commenced within three months after the fact committed, and not otherwise; and notice in writing of such action and of the cause thereof shall be given to the defendant one month at least before the commencement of the action; and in any such action the defendant may plead generally that the act complained of was done in pursuance or execution or intended execution of this Act, and give this Act and the special matter in evidence at any trial to be had thereupon; and the plaintiff shall not recover in any such action if tender of sufficient amends is made before such action brought, or if a sufficient sum of money is paid into Court after such action brought, by or on behalf of the defendant; and if a verdict passes for the defendant, or the plaintiff becomes non-suit, or discontinues any such action, after issue joined, or if upon demurrer or otherwise judgment is given against the plaintiff, the deiendant shall recover his full costs as between attorney and client, and have the like remedy for the same as any defendant has by law in other cases; and though a verdict is given for the plaintiff in any such action, such plaintiff shall not have costs against the defendant unless the judge beiore whom the trial is had certifies his approbation of the action and of the verdict.

This Act shall continue in force for three years from the passing thereof, and no longer.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

John of Gaddesden.—You are senior to John Ardern, who flourished in 1349, and who, as Surgeon to Edward III., accompanied the King to the battle of Crecy.

A Medical Student.—It was in 1606 that Roman Catholics were prohibited in England by statute "from practising physic, or exercising the trade of Apothecaries."

Bulbous Roots, M.D.—In 1693 Dr. Groenevelt was apprehended on a warrant from the President and Censors of the College of Physicians, and committed to Newgate, for prescribing cantharides in substance to a woman in Southwark, and, although the Doctor was ruined, the reputation of cantharides was established.

The case of Urquhart *v.* Bonnar, in which a shoemaker accuses a Doctor of Medicine of having unfairly procured a life policy to be assigned to the Doctor as security for rent, presents no point of Medical interest. It is, indeed, alleged by the pursuer—*i.e.*, the shoemaker—

"That about the date of the assignation, while he was in a very delicate state of health, and under the Medical treatment of the defender, and under his influence, which had the greater effect owing to the mental debility caused by physical prostration, the latter came into his shop and asked him to go into Mr. Taylor's office and sign a document, which he stated was a security for his rent."

So far as evidence goes, which is published in the *Edinburgh Evening Courant* of July 22, we think the Doctor had a very bad tenant, and altogether made a very bad bargain; but we cannot see a particle of evidence of fraud in the case, and the sentiments of the jury were the same, although on some technical point they found a verdict for the pursuer.

Dr. O'G., Dublin.—The total fee for the diploma is £22, payable in the following manner:—Five guineas for the primary or anatomical and physiological examination, and £16 15s. for the pass or Surgical and pathological examination; this last sum includes the Government stamp of £1. In the event of rejection the larger fee is returned to the candidate, and the smaller one is retained, but allowed in a future examination. About 450 members are annually admitted. We are unable to give the average rejections; but on the first day of the last primary examination twenty were rejected out of thirty-eight. The fee for the Fellowship is thirty guineas, or an addition of ten to that already paid for membership.

An Old Member and Subscriber will find the information desired in the above answer to Dr. O'G.

An Army Surgeon.—2. Many Medical duels have been prevented by the difficulty of arranging the *methodus pugnandi*. In the case of Dr. Brocklesby the number of paces could not be agreed upon, and in the affair between Akenside and Ballow one had determined never to fight in the morning, and the other that he would never fight in the afternoon.

Erratum.—In the *Medical Times and Gazette* for July 23, 1864, at p. 106, *for* Inspector-General Mowat, *read* Inspector-General Mouat.

Tin Vessels at the North Staffordshire Infirmary.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you allow me to correct an error in Dr. Richardson's "Medical History of England," of last week, in reference to the use of tin vessels at the North Staffordshire Infirmary?

The mugs and plates used by the patients are all made of porcelain. The plates never have been made of any other material, and the tin mugs were changed for porcelain ones several months ago.

I am, &c. W. Dunnett Spanton.

North Staffordshire Infirmary, Etruria, July 25.

Griffin Testimonial Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The following subscriptions have been further received on behalf of the above fund:—

Jas. Hair, Esq., Bures St. Mary, 10s. 6d.; C. F. J. Lora, Esq., Hampstead, 10s. 6d.; Dr. R. Martin, Warrington, £1 1s.; Dr. Bisset Hawkins, Dorchester, £1 1s.; Dr. Wm. Sankey, Hollingbourne, £1 1s. Amount previously announced, £39 7s. 6d.; Received at the *Lancet* office, £2 18s.

I am, &c. Robert Fowler, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, July 27.

The College of Physicians and the General Practitioner.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—There being at the present time a desire on the part of a large number of General Practitioners to be enrolled as Licentiates of the College of Physicians, I cannot but think that, if the College should not grant the *ad eundun* degree, yet they ought to make some allowances for those who had nearly finished their studies at the time of the publication of the bye-law in January, 1861, and who had already, in the previous year, passed both written and *viva voce* examinations in Anatomy and Physiology at the College of Surgeons and Apothecaries' Hall, and yet would have been seriously inconvenienced by having to be examined over again on the same subjects at the College of Physicians; not to mention the extra fees required. For it really seems scarcely logical that these examinations should be considered imperfect evidence of proficiency, whilst older Practitioners should be required to pass an examination in Medicine only, their intimate acquaintance with anatomy being taken for granted.

I am, &c. G. P.

The Medical Departments of the Public Service.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The honourable Member for King's County deserves well of his country for having so ably frustrated the attempt made by the Secretary for India to damage that branch of the Army Medical Department under his control.

It was a cunning and yet withal a stupid device of Sir Charles Wood's to do away with the competitive system of examination which now protects the soldier from blundering incompetency, and a miserable attempt to substitute for it the unchecked discretion of a Secretary of State. The late period of the session seemed to favour the scheme, but, thanks to a few sensible men, the bill was ignominiously thrown out, and the public are not likely to hear anything more about it in this or the next session of Parliament.

The military authorities should now seriously consider how they can best provide for the great and pressing want of properly-qualified candidates to fill up the numerous vacancies in the Army Medical Department. Casting aside that stupid prejudice which strives to ignore the combatant character of Medical officers, who, as a body, suffer more in actual warfare than the so-called combatant class, let them honestly adopt those measures so frequently pointed out in your columns, and in good time there will be no dearth of eligible candidates.

In some late numbers of your Journal, a Correspondent advocated the propriety of applying the competitive system of examination to the Navy, with one common Examining Board for the whole of the Queen's service. There cannot be a doubt in the mind of any reasonable man of the propriety—nay, the necessity—of giving to our sailors the best possible Surgical assistance that can be procured, and the only excuse for the non-adoption of the competitive system in the navy is that which prompted the late abortive Indian Medical Bill—viz., a deficiency of eligible candidates. If there was one common Examining Board, and the candidates had a choice of service by priority of passing, the navy would doubtless be at a discount; but then the case would be better than at present. The competitive system would at least secure a comparatively good class of men; and if the supply should not prove equal to the demand, the Admiralty should then do what the Horse-Guards must now do—that is, give a sufficient inducement by acknowledging fully the position, increasing the pay, and granting an earlier retirement to Medical officers.

I am, &c.

Army and Navy Club, July 26. Medicus.

Medical Education.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I am of opinion that the time has arrived for dividing Medical education between the Universities and the Hospital schools of Medicine and Surgery by the former taking the summer, and the latter the winter, session. The adoption of such a system would enable a student to obtain a minor degree in Medicine after three or four summer sessions, and the licence to practise Medicine and Surgery after three winter sessions. The licence, of course, would be obtained at the Colleges of Surgeons and Physicians or Apothecaries' Hall, but no single qualification should be registered; the degree and licence constituting the full qualification should be simultaneously registered.

For the higher degree in Medicine, or the Fellowship in Medicine or Surgery, a period of five years' Hospital practice should be required (though not at one Hospital) previous to examination. A provision, however, should be made for those who have obtained a Professional *status*, and who may have neglected to undergo the early examination. In like manner the Universities should adopt a similar term of instruction in the higher collateral branches of Medicine.

I would suggest the advisability of parents sending their children early to a University if they are intended for the Medical Profession. Twelve months spent at a University would enable a student to prepare himself for the preliminary examination before entering upon his first summer session. It is, moreover, an important question whether a youth would not gain more classical knowledge at a University in one year than by two years' additional schooling. I allude more particularly to those who may fail to pass the Oxford and Cambridge local examinations.

By adopting the conjoint mode of educating Medical students herein pointed out, no additional expense would be incurred, provided the Universities and Colleges would agree to arrange their examinations accordingly.

Every Professor of Medicine and Surgery must see the necessity of relieving the student by separating pure Professional subjects from the collateral branches of Medicine and Surgery. Moreover, the mind may be overworked by one course of study in the metropolis during the winter months, and become refreshed by the change to a University, and *vice versa*. I am, &c.

A Medical Reformer.

P.S.—Should the London College of Physicians determine upon selling its diploma to the general Practitioners, what title will the College give or allow to be used? If they are to style themselves Physicians, it will be incumbent on the College to make the present Members Fellows. There are only two grades in the College of Surgeons and two in the Universities without any restrictions under a bye-law; why, then, should the College of Physicians make three grades? Both Members and Fellows of the College of Surgeons are Surgeons.

The "Dose" Controversy.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I will not prolong the discussion with Dr. Meadows, but I am obliged in self defence to notice his uncourteous remark about my qualifications to criticise his book.

Before Dr. Meadows was born I took honours among the first five in Materia Medica in the London University, and was bracketted with the gold medallist in a previous examination. Since then I have been in constant and active practice, and I do not think that my efforts now to do a public good ought to have been met by the want of good taste which characterises Dr. Meadows' last letter. I have no wish, however, to be egotistical. On such a subject egoism would be an unworthy rival of bad taste. I therefore take the liberty of throwing myself upon authority which will, I have no doubt, be considered as good as that of Pereira.

I copy the following from MS notes taken from lectures delivered by Professor Christison in 1859:—

"*Squills.*—Action—powerful irritant poison. 24 grains will cause death. In small doses emetic, cathartic, diuretic, and expectorant—now only used for the two latter objects." (Dr. Meadows says in a book intended for the advanced information of 1864—Dose as an emetic for adult, 10 to 20 grs.)

Colchicum.—In gout and rheumatism it ought (i.e., vin. colch.) to be given in adequate but not too large doses. The dose of usefulness and of injury are very near each other. I have seen one fatal case from a dose of ℥jj. Of the wine and tincture you may give ♏xx. three or four times a-day, and you may increase it by ♏x. to ℥j.—so they say. I seldom go beyond ♏xx. (Dr. Meadows remarks,—"To show how qualified Dr. Bree is for the very severe strictures which he has passed upon my work * * * Dr. Williams says the dose of colchicum wine may be gradually increased to ℥iij. Pereira has given ℥ij., and he puts the ordinary dose as ℥ss. to ℥j. Such facts as these make one fear that Dr. Bree may be somewhat rash in his assertions.")

"Veratria.—One-twentieth part of a grain will kill a cat by violent inflammation of the intestines. Irritant poison. Action—diuretic, anodyne—now only employed externally." (Dr. Meadows says—Veratria. —Dose, as an emetic, for an adult, gr. ½ to gr. 2.)—(From lecture March 8, 1859.)

"Tobacco.—In large doses pulse hurried and feeble—countenance ghastly—syncope—death. As an injection in strangulated hernia or the flatulence of peritonitis, an infusion may be used of gr. xv. to xx. in water, ℥iv.—exceedingly dangerous to use ℥j. to ℥ij. as recommended by continental authors. Dr. Fowler has given the wine as a diuretic in doses of 20 to 40 ♏. I have used it, but not with the same success as Dr. Fowler. It has gone very much out of use." I need not, I think, say any more. I am, &c.

Colchester, July 20. C. R. Bree, M.D.

P.S.—I see Dr. Nevin says in his "Analysis of the Pharmacopœia":—

1. Tinct. aconite (BP). Dose should not exceed ♏ five to ten.
2. Veratria. Not used internally.
3. Tinct. lobeliæ. Dose, ♏ xv. ad xxx. It is so depressing that it is seldom safe to exceed this dose.
4. Colchici sem. tinct. Dose, ♏xxx. Above this it must be watched with care.
5. Morphiæ hydrochloratis liquor (gr. iv. in f℥j.). Dose, mv. to xxx.

I suppose Dr. Meadows will allow Dr. Nevin to be an authority?

The College of Physicians and the Apothecaries.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—It was once my pleasure to make a call upon a very elderly gentleman, one of the good old antediluvian sort, who having expressed his happiness at seeing me, said,—My dear sir, I will give you such a treat, something to taste, such as you have never met with before—beats the choicest vintage you have ever partaken of." Hereupon the old gentleman bustled about, and at length produced and handed me a glass of—what think you, Sir?—gooseberry wine! Now, Sir, this worthy man had been so long acquainted with his gooseberry that he really believed it was something very magnificent (the wine was not bad for gooseberry). This little story aptly applies to your correspondent, the "County Magistrate and Apothecary," who has such a mighty high notion of the latter cognomen. Of course there is no accounting for tastes—as the old lady said when she kissed her cow. Thus far I give him the benefit of the doubt, and believe him to be honest, but others may not be so charitably inclined towards him, and probably think his letter emanated from a bitter animosity to the College of Physicians, which animosity he has pretty clearly made manifest. Is it that he has ever been treated in a disrespectful or haughty manner by any one connected with the College? If so I am very sorry for it.

I should like to know, Mr. Editor, whether the "County Magistrate and Apothecary" has his address card (he enclosed you one) in this fashion,—Mr. Apothecary Jones? If he has not, let me entreat him, as a proof of his sincerity, to have it altered at once. It would look so nice when he makes a call on any of his brother magistrates. By the way, Sir, see how he qualifies the Apothecary by prefixing the county magistrate, just as my poor old friend's gooseberry might have been qualified by a dash of genuine cognac.

I should also like to know whether your correspondent (if he be in practice), who is so proud of the name of Apothecary, acts up thoroughly to what that name implies—*i.e.*, keeps a shop, sells drugs, makes up Physicians' prescriptions, as he is bound by law to do (a law very properly not enforced), sends out his accounts, with items of pills, powders, draughts, tooth powder, etc.—in fact, a bill as long as his arm; or whether he is dishonest in calling himself an Apothecary, and yet acting every day of his life as a Physician, in visiting, prescribing, and not charging for, medicines supplied in Medical cases, as is the practice now of most Apothecaries throughout England, clearly showing that the name of Apothecary no longer has a meaning as far as regards Medical Practitioners, among the majority of whom the Apothecary no longer exists in reality. No matter what your correspondent may say about how we love to be considered a nation of shopkeepers, I question very much whether the members of our Profession practising generally would elect to be considered a profession of shopkeepers. Much as the term is hugged by the "County Magistrate and Apothecary," and much as the prosperity of our country depends on its trade and shops, I and many more do not care to remain in the company of the "County Magistrate," nor share his love for the shop.

Your correspondent has attacked the College of Physicians, and attributed to the Fellows, etc., the having acted on all occasions with the most unworthy motives. He is certainly no friend to that institution; but I may safely allow the Fellows of the College to take their own part and deal with this gentleman as he deserves. I fancy such letters as the one he has written have just the contrary effect to that intended by the writer, for abusive arguments generally help the opposite side.

In addition to the abuse lavished so unsparingly on the gentlemen who have dared in this free land to send a memorial to the College of Physicians, your correspondent has also included you, Mr. Editor, in his animadversion, for in your leading article you have had the hardihood to designate the desire of the memorialists as a much-to-be-commended one, and this with the letter of the "County Magistrate and Apothecary" actually lying before you, in which letter he characterises that very desire in terms which I think very discreditable to himself; but as my L.S.A. does not signify Licentiate of the Society of Abuse, I will not condescend to reply in the same offensive manner which he has thought so becoming in a county magistrate to assume, when he applies language which the memorialists may look upon as ungentlemanly, uncourteous, and uncalled for towards several of his own Profession, including some who may, for aught I know to the contrary, be, at least, equal, if not vastly superior, to the "County Magistrate and Apothecary." I am, &c.

July 23. F.R.C.S. Eng. (Exam.)

COMMUNICATIONS have been received from—

Pharmaceutical Society; Apothecaries' Hall; T. Parvin, Esq.; J. H. Pye Smith, Esq.; The United Kingdom Alliance; Dr. Kidd; Mr. Pulling; F.R.C.S.; W. D. Spanton, Esq.; E. L. Hussey, Esq.; T. Wharton Jones, Esq.; Medicus; Dr. Pitman; J. S. Sequeira, Esq.; Dr. Rice; Obstetrical Society; Dr. Fowler; The Dean, Charing-cross Hospital; M.D., R.N.; P. H. Pye Smith, Esq.; T. M. Evans, Esq.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 23, 1864.

BIRTHS.

Births of Boys, 976; Girls, 894; Total, 1870.
Average of 10 corresponding weeks, 1854-63, 1664·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	701	698	1399
Average of the ten years 1854-63	603·0	547·8	1150·8
Average corrected to increased population..	..	..	1266
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa
West ..	463,388	..	8	15	3	5	6	28
North ..	618,210	4	7	12	1	5	16	31
Central ..	378,058	1	11	0	1	5	12	22
East ..	571,158	2	37	12	5	13	10	38
South ..	773,175	6	11	8	5	8	26	26
Total ..	2,803,989	13	74	53	15	36	70	145

APPOINTMENTS FOR THE WEEK.

July 30. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

August 1. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

2. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

3. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.

4. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

5. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

CHLORODYNE,

THE ORIGINAL AND ONLY GENUINE,

Discovered only by Dr. J. COLLIS BROWNE, M.R.C.S., late Army Med. Staff.

BROWNE *v.* FREEMAN.

VICE-CHANCELLOR SIR W. P. WOOD stated :—

Dr. J. Collis Browne "WAS UNDOUBTEDLY THE INVENTOR OF CHLORODYNE;"

That "The Defendant (Freeman) couples his Advertisement with one unquestionable falsehood, which I am sorry to say he has sworn to, but which is proved to be as false as can be;"

Again—"I believe the whole story of the Defendant being the Inventor of Chlorodyne to be as pure a fiction as that story of the employment of his medicine in one of the Hospitals."

"I believe the whole of it to be as deliberately untrue as the falsehood which he has deposed to with reference to the use of it in the Hospitals."

The attention of the Medical Profession generally is especially called to the above extracts from the Vice-Chancellor's judgment, so that they may be made aware of the conduct of this "unscrupulous Defendant" (as he was termed by the Vice-Chancellor), and avoid, for their own credit's sake, having any of their names in association with such untruths, piracy, and deception.

Affidavits from numerous Medical gentlemen were produced in Court, to the effect that they had been misled by the Defendant's statements, and that his compound was entirely different to Chlorodyne, and in many instances had proved very deleterious.

The following eminent firms stated that Dr. J. Collis Browne was the discoverer of Chlorodyne, and that they always supplied his preparation as the Original Chlorodyne, or when Chlorodyne was asked for :—

THE APOTHECARIES' HALL, LONDON.
Messrs. ALLEN & HANBURY.
" JOHN BELL & Co.
" BARRON & HARVEY.
" BURGOYNE & BURBIDGE.

Messrs. COX & GOULD.
" CORBYN & Co.
" EVANS & LESCHER.
" MORSON & SON.
" SAVORY & MOORE.

&c. &c. &c.

PRICE TO THE PROFESSION:—

In Bottles, 1 oz., 3s.; 2 oz., 5s.; 4 oz., 8s.; and in Bottles of 10 ozs. at 1s. 6d. per oz.

SOLE MANUFACTURER, J. T. DAVENPORT, PHARMACEUTIST,

33, Great Russell-street, Bloomsbury-square, London.

N.B.—£100 Reward will be paid to any person giving such information as will lead to the conviction of any one selling as Dr. J. Collis Browne's Chlorodyne that which is not of his manufacture.

P.S.—It was submitted in Court that the Defendant Freeman was the same person against whom Sir James Clark filed an Injunction to restrain the use of his name in conjunction with some Pills.—Vide "Pharmaceutical Journal," vol. vii., pages 412 and 450.

ORIGINAL LECTURES.

THREE CLINICAL LECTURES ON IRIDECTOMY AND GLAUCOMA.

By T. WHARTON JONES, F.R.S.,
Professor of Ophthalmic Medicine and Surgery in University College, and Ophthalmic Surgeon to the Hospital.

Lecture III., delivered March 18.

Gentlemen,—As glaucoma is a disease of advanced life—occurring especially in persons of broken health, gouty constitution, affected with abdominal congestion, or labouring under hæmorrhoidal disease, we can readily understand, keeping in mind its special pathology such as I traced it in my last lecture, that that affection of the eye should prove so rebellious to treatment.

On the present occasion it is not my intention to enter into the general treatment of glaucoma, I mean only to speak of the operation of iridectomy as a means of treating the disease *àpropos* of the case we have under our care.

Here was a case, then, in which the right eye was, some three months ago, operated on by iridectomy for chronic glaucoma without any improvement of the sight, though the man expressed his belief that his left eye had gained in strength since the operation on the right.

This gain for the left eye, however, did not prove of long continuance; for the man presented himself the other week—that is about three months after the operation on the right eye—with an attack of arthritic posterior internal ophthalmia, or acute glaucoma of moderate severity of the left eye. On this eye, as you saw, I performed iridectomy a fortnight ago. On the night of the operation, and for two nights following, the patient took a pill containing two grains of calomel, one grain of extract of colchicum, and one grain of opium.

As a result of the operation and this treatment, the inflammation and pain began to abate and the sight appreciably to improve. In proportion as the blood, which was effused in considerable quantity into the aqueous chambers at the time of the operation, became absorbed, this improvement of sight advanced so far that on Tuesday last, about ten days after the operation, the man said he could see all round about him much better than he was able to do before the operation. Unfortunately, however, there supervened, without any evident cause since Tuesday, a new effusion of blood into the aqueous chambers, whereby the improvement of sight such as had been gained was to some extent lost.

On Wednesday, at my visit, I ordered the application of leeches to the temple, the effect of which has been absorption of the effused blood to a great extent, so that the sight has now regained the improvement it had lost.

This spontaneous effusion of blood, I may here remark, exemplifies the tendency to intraocular hæmorrhage in glaucoma I spoke of in a former lecture.

How did excision of a piece of iris act in producing the result I have described?

Iridectomy is commonly said to operate beneficially by removing the intraocular distension, and thus relieving the retina and ciliary nerves from pressure. No doubt it appears to produce some such effect; but how does it operate in removing the intraocular distension? is the question.

On the assumption that the surface of the iris is the principal source whence the aqueous humour is exuded, iridectomy has been said to remove intraocular distension by diminishing the extent of the exuding surface, and thus setting a limit to the accumulation of aqueous humour. We have, however, seen that whatever good iridectomy may do in the way of diminishing intraocular distension, it cannot be by removing a source of the aqueous humour, because we have shown that the iris has little if any share in secreting aqueous humour; and it is evident that if it had, the removal of so small a portion of that membrane would not be likely to produce any great impression on the quantity of aqueous humour exuded. We have, moreover, seen that in glaucoma the intraocular distension is not owing to an increase in the quantity of aqueous humour, but that, on the contrary, it has its seat in the posterior segment of the eyeball.

An opinion has been expressed to the effect that iridectomy, by establishing a larger and freer communication between the two chambers of the aqueous humour promotes the diminution of intraocular distension. The force of this opinion, however, I cannot see, even supposing what has been just denied, that the distension has its seat in the aqueous chambers.

In reviewing our case in order to discover what can be ascertained from it in explanation of the *modus operandi* of iridectomy, we must not overlook the effect of the preliminary section of the cornea and the evacuation of the aqueous humour that takes place in relieving the tension of the eyeball at the time. We all know what relief to tension is elsewhere afforded by an incision through a fascia investing a congested or inflamed part; and although undue accumulation of aqueous humour is not, as we have seen, a cause of the distension of the eyeball in glaucoma, still the evacuation of the aqueous humour must contribute for so much to the relief of the distension.

Let us now direct attention first to the operation on the right eye. Though this eye quickly recovered from the effects of the operation, though the quantity of blood effused into the aqueous chambers was not very great, and though what there was became speedily absorbed, no restoration of sight took place. The left eye, however, as we have seen, felt stronger, and the man could exercise the sight of it better.

According to the view of the pathology of glaucoma which I have submitted to you, this result of the iridectomy on the right eye might be explained as follows:—

The intraocular venous congestion was relieved by the operation—in what manner I shall endeavour to explain by-and-by; and the circulation of the blood within the eyeball being thus rendered freer, absorption of superabundant fluid in the cells of the vitreous body was favoured so that altogether the intraocular distension was diminished. But you will ask, If so, why was sight not restored? The answer to this, I suppose, must be that the retina had already sustained so much material organic injury from the combined congestion and pressure, that on the diminution or removal of the distension it was no longer fit to resume its function, though the pain was relieved.

The relief of the right eye, however, from congestion and distension reacted by sympathy—or whatever other name you choose to employ to designate that influence which the condition of one eye undoubtedly exerts on the other—in a favourable manner on the left eye; so that what intraocular congestion and distension existed there, were for the time ameliorated. But as the patient is a person far advanced in life, and presents indications of a gouty constitution and broken health, we have no reason to be surprised that the amelioration in the condition of the left eye should have been for a time only, and that under the unfavourable circumstances of the late severe weather and its accompanying changes; the left eye should have become inflamed, and that the inflammation should have been what is called arthritic posterior internal ophthalmia or acute glaucoma.

From the iridectomy on this eye we have gained more for its sight than we did from the operation on the right eye for its sight.

We have seen that it is in acute glaucoma that most benefit to sight is derived from iridectomy. This effect, such as it is, must, in my opinion, be looked for in the circumstance that the disease not having been of long standing, the retina may not as yet have suffered material organic change, and, therefore, is still capable of resuming to some extent its function on being relieved from pressure by the subsidence of the inflammatory congestion, and the consequent absorption of superabundant fluid in the posterior segment of the eyeball.

Let us now endeavour to explain how subsidence of the inflammatory congestion of the choroid and retina might be promoted by iridectomy.

At my last lecture, I referred to a microscopical observation which I had made on the tail of the tadpole when in a state of congestion—viz., that I had seen a small incision at the extremity, by emptying some of the congested vessels, relieve the congestion of the vessels higher up, so that the circulation, which was previously stagnant there, became re-established in its activity. Now, the excision of the piece of the iris, and the consequent evacuation of a small quantity of blood, appear to act by relieving in a similar manner the congestion of the choroid and retina, and thereby promoting in them a freer circulation. In fact, it is in a similar manner also, that scarification of the palpebral conjunctiva operates so beneficially when that membrane is in a state of great inflammatory congestion, It is not the mere loss of blood that does good, for that is insignificant, but the emptying of some of the

vessels permitting of the re-establishment of the circulation in its activity in the part generally.

In our case, although the inflammation has been relieved and the sight somewhat improved, there is not any prospect of a restoration of what may be called *good sight;* and this judgment is, I believe, applicable to most other cases of iridectomy in acute glaucoma. In chronic glaucoma we have seen that the judgment is much less favourable. You have only to look through this table of cases in the Ophthalmic Hospital Reports (No. 10, January, 1860) to be satisfied of the inefficiency of the operation in chronic glaucoma.

You thus perceive how unfounded the claim is which has been set up for iridectomy as a *cure for glaucoma!*

The removal of the opaque lens by operation is entitled to be called a cure for cataract. So also, in the cases I have before spoken of, in which iridectomy is performed for the sake of an artificial pupil, the operation is entitled to be called so far a cure for the closed or obstructed pupil.

All this is intelligible, but as regards iridectomy in glaucoma, the case is different.

Evacuation of the aqueous humour in certain cases of anterior internal ophthalmia cannot be called a *cure*, though it is often a very useful auxiliary. In like manner, *iridectomy is not a cure for glaucoma*, though it may sometimes prove a useful auxiliary in the treatment of arthritic posterior internal ophthalmia, or as it has been called acute glaucoma. Here it may be said, perhaps, *remedium anceps melius quam nullum.*

We have seen that there are certain symptoms premonitory of glaucomatous failure of sight. In such a case iridectomy has been especially recommended as a prophylactic of the threatened mischief.

If under such circumstances you should think it warrantable to propose the operation, you ought to do so only with great reserve, as you could not truly give your patient an assurance that the operation would have the desired effect of preserving his sight. The patient, until he actually finds himself rapidly becoming blind, moreover, would be slow to listen to your proposal, especially if you faithfully explained to him, as it would be your duty to do, the *cons* as well as the *pros* of the operation. For though iridectomy, as we have seen, is an operation which inflicts comparatively so little violence that the eye, in general, very quickly recovers from it, still it has not unfrequently happened that the patient has been rendered not only not better—has been left not even in *statu quo*, which is always some consolation—but has been made positively worse.

That iridectomy and extraction of the lens combined may not permanently secure the eye against an attack of acute glaucoma was shown by a case of cataract we had here some years ago. The patient was a woman about 60 years of age, and the eyes were at the time otherwise quite healthy. I performed extraction on one eye, and in making the section of the cornea the iris, in consequence of a premature escape of the aqueous humour, fell before the edge of the knife, and a very considerable piece of it was cut out. The lens was easily extracted, and the case did well. The eye, indeed, recovered so rapidly that the patient was able to leave the Hospital within ten or eleven days after the operation. Having been fitted with cataract glasses, the woman enjoyed capital sight, and continued to do so for some two or three years. At the end of that time she one day presented herself at the Eye Infirmary, complaining that the sight of the eye was totally gone. She stated that the eye had been inflamed for some ten days past, and that she had been suffering severe pain in the head all that time.

On examination, I found the eye—the eye on which both iridectomy and extraction had been performed—hopelessly glaucomatous.

Suppose this patient had been seen earlier in the attack, would a second iridectomy have saved the eye? It is not likely, but if so, it is evident that the eye could not bear much further repetition of it, for the good reason that there would be at last little of the iris remaining to cut away.

This suggests the question—Are persons with congenital absence of the iris liable to glaucoma? Such persons are rare, and I have never seen one affected with glaucoma exactly, though I have seen one attacked with internal inflammation of the eye of somewhat arthritic character after an operation for cataract. This was the case in which, after paracentesis corneæ, the aqueous humour was as quickly and completely regenerated as usual. I do not, however, suppose that congenital absence of the iris offers any immunity against glaucoma. If so, what could an iridectomist do in case of an attack?

Iridectomy, we have seen, may be advantageously performed in certain cases of chronic anterior internal ophthalmia with extensive adhesion of the pupillary margin of the iris to the capsule of the lens. Here we can understand that one effect of the operation is really to establish a freer communication between the anterior and posterior chambers of the aqueous humour.

The operation has also been had recourse to in the hope of warding off the relapses of gonorrheal rheumatic iritis, to which some persons are so painfully subject.

Iridectomy, however, may not secure the eyes against even a first attack of gonorrhœal rheumatic iritis, as was shown in the following case:—

Some years ago we had a man in this Hospital with gonorrhœal ophthalmia affecting both eyes. When I first saw him there was considerable chemosis, and both corneæ had become opaque. Fortunately, they were saved from destruction; but after the subsidence of the inflammation, though clearing of the corneæ took place to a very great extent at the circumference, opacity still lingered in the centre, so as to obstruct the sight completely. I therefore performed the operation for artificial pupil by iridectomy on both eyes. The iris of both eyes was at this time quite sound, in proof of which I may mention, in passing, that the pieces cut out were made the subject of a very successful microscopical investigation of the muscular structure of the iris, by Mr. Joseph Lister, now Professor of Surgery in Glasgow, who assisted at the operations.

The man gained pretty useful sight, and went on well for some two or three years, when he had an attack of general gonorrhœal rheumatism, in the course of which the eyes became affected with very severe and stubborn iritis. The condition of one eye in particular remained after this very much deteriorated.

If iridectomy does not secure against a first attack of iritis, it is not likely to secure against a relapse. It has, however, the effect of saving the eye from closed or obstructed pupil, and may, therefore, often be advantageously performed.

We ought not, however, to be forward in proposing iridectomy even in stubborn cases of anterior internal ophthalmia. Cases have come under my notice in which disastrous results, or, at the best, results inferior to what might have been otherwise obtained, have followed the unadvised performance of the operation. On the other hand, I have had repeated occasion to congratulate myself on the successful issue of Medical treatment, alone or aided only by the evacuation of the aqueous humour in cases of the most threatening character. In one case which lately came under my care, the opinion had been given that iridectomy was the only remaining resource. Notwithstanding this, a cure was effected without even the aid of *paracentesis corneæ.*

Too hasty a proposal of operations, let me observe, in conclusion, betrays imperfect command of the resources of Medical treatment. To operate is far easier than to conduct Medical treatment properly—it is to cut the string instead of untying the knot.

It is sometimes said that the Medical treatment injures the health of the patient. I deny this, if the treatment be properly conducted. No doubt the health of the patient is often injured by ill-conducted treatment; but ill-conducted treatment, at the same time, fails to cure the eye. You may be sure that the eye will never be cured at the expense of the general health. In my experience, when an affection of the eye has been cured, the general health has been, at the same time, improved by the treatment.

In illustration of what I say, I may mention a case which occurred to me a great many years ago. It was a relapse of very severe gonorrhœal rheumatic iritis, in which the general health was so much benefited by the Medical treatment employed for the cure of the eye, that the patient, some years afterwards, finding himself out of condition, wanted me to subject him again to similar treatment, although the eye itself continued well.

A PIQUANT CAKE.—At the Manchester Assizes on Tuesday Cyrus Francis, convicted on the previous day of attempting to murder his wife by giving her a cake containing a quantity of antimony and a number of crooked pins, was sentenced to twenty years' penal servitude.

ORIGINAL COMMUNICATIONS.

CASE OF CÆSARIAN SECTION— BIRTH OBSTRUCTED BY ENORMOUS HYDATID CYST OF LIVER.

By MICHAEL THOMAS SADLER, M.D. Lond., etc.

On the evening of April 26, 1863, I was requested by Mr. Blackburn, of Barnsley (who was confined to his bed by severe illness), to see Mrs. S., residing about two and a-half miles from Barnsley, and who had been for some days in lingering labour under the charge of his assistant.

The patient was 21 years of age, about nine months pregnant with her first child; she was a little under the average height, and had from an early age a remarkably protuberant abdomen. I found that there had been an escape of liquor amnii on the morning of the 19th, and ever since that time there had been from time to time violent pains for brief periods followed by long intervals of repose. On examining per vaginam, I found that I could just reach the os uteri by passing my finger up a narrow passage between a hard prominence in front of the sacrum and the pubes; the os was undilated, undilatable, and flattened, and the head could be just reached within it. The pulse was about 80, and there were no signs of approaching exhaustion, and as a Medical friend, who had seen the case before, thought that there had been some little progress, we determined to wait until morning, and then to have a further consultation, leaving her in the meantime in charge of an assistant.

Next morning, finding that there was no improvement, I got two Medical friends to see her with me. By this time her strength was flagging, the pulse had risen to 150 and was small, an offensive discharge was beginning to flow from the vagina, and the parts felt hot and unhealthy. They agreed with me that it was quite necessary to deliver the woman at once, and, at the same time, that delivery by the natural passages was impossible, as only two fingers could be passed between the pubes and promontory of the sacrum, and even if we had succeeded in perforating the cranium of the fœtus, it would have been impossible to have got the fragments through the brim of the pelvis. The obstructing protuberance was excessively hard, and had all the characters of a large exostosis of the sacrum. The space between it and the pubes was about an inch and a quarter. After much anxious deliberation it was decided to perform the Cæsarian section, which I accordingly did with the assistance of Mr. Stawman, Mr. Harrison, and Mr. F. Churchill. Having emptied the bladder and rectum, I made an incision from a little below the umbilicus along the linea alba to the pubes, and cautiously opened the abdomen, when a large mass of apparently mesenteric disease came into view above the uterus, and which, through the integuments, had felt remarkably like the head and limbs of a child. The uterus was opened rather to the left, to avoid risk of injuring the bladder, a quantity of thick yellow liquor amnii was carefully sponged out, and a dead child of full size removed, and after that the placenta and a quantity of meconium. Having ascertained that the uterus was perfectly empty, and having felt from above the narrow antero-posterior diameter of the brim of the pelvis, the uterus being well contracted and all blood and clots removed, we closed the wound with silver wire sutures and broad straps of plaster, and applied a bandage round abdomen. At 7.45 p.m. the patient was sensible, free from pain, and desired to sleep.

28th, 9.30 a.m.—Has slept well, and is free from pain. Has vomited twice since last evening. Pulse 130, feeble. Moderate discharge from vagina. A few drops of urine were drawn off by the catheter. Stimulants, beef-tea, etc., were taken during the day, and at 8 p.m. there was not much change. She died, however, about midnight, still sensible and free from pain.

With great difficulty permission was obtained from the friends to re-open the wound and examine the body as far as possible without enlarging the aperture, but nothing more was to be done. The first thing that attracted attention on opening the abdomen was the appearance of a semi-transparent round body about the size of a large marble, rolling about among the intestines; these rapidly multiplied, and we soon found that the cause of all our difficulties had been an enormous cyst filled with these hydatids, occupying the whole upper part of the abdomen in the region of the liver, and extending downwards along the spine to the pelvis, and so compressed by the pressure of the uterus from above as to assume a degree of hardness simulating that of a bony growth from the promontory of the sacrum.

Of course it is easy to see now that the best course would have been to have passed a trocar into the supposed bony obstruction, for though no quantity of fluid could have escaped by the canula, yet the non-bony nature of the growth would have been demonstrated, and we might possibly have been able, by an incision through the vagina, to have let out a sufficient quantity of the hydatid growth to have allowed the child to have passed through the pelvis, and so might have given the poor woman a very slightly better chance of her life than was afforded by the dreadful alternative of the Cæsarian section. I have thought it my duty, however, to publish the case, as it is, as far as I know, unique, and may not be the less useful to my fellow Practitioners for being unfortunate for the patient and unsatisfactory to myself.

Barnsley.

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Medical Times and Gazette.

SATURDAY, AUGUST 6.

THE PROFESSION AND THE COMING ELECTION.

It would be absurd to suppose that our Medical brethren can watch unmoved the rising stir and excitement caused by the gradual approach of a general election. It is true that, as far as regards the relations between Doctor and patient, "Medical men have no politics," and it is further true that it would be a grievous mistake for Medical men to suffer themselves to be much entangled in the turmoil and excitement of electioneering contests; they would thereby seriously injure, or at least endanger, their position, influence, and power for good; but it would be ridiculous purism to affect the hope or the wish that, therefore, while the note of battle sounds throughout the land, while everywhere the claims and chances of probable and possible candidates are being discussed, votes counted, lists compared, and plans of campaign laid down, Medical men should hold themselves entirely aloof from the struggle, utterly indifferent to and careless of the result. However desirable and proper it may be that they should avoid ordinary political partisanship, it by no means follows that they are to be reduced to the condition of Canning's needy knife-grinder—

> "But, for my part, I never meddle
> With politics, Sir."

Leaving general politics on one side, it is impossible, or at least most unnatural and undesirable, that they should not interest themselves so far as to inquire into a candidate's opinions on matters affecting immediately the position and prosperity of the Profession, and on measures of public health, on hygiene, lunacy law, vaccination, etc. And this, we think, indicates the kind and degree of interest our Profession should take in parliamentary elections. How often

we have to deplore the ignorance and carelessness Parliament shows when measures directly affecting us or connected with Medical science come before it! It is hopeless to wait, in order to amend this state of things, till we are fitly and powerfully represented in the House of Commons; and even then, should such a day ever arrive, the presence of a few, however able, members of the Profession could only very slowly tell against the ignorance and indifference of the mass of the House. A much more immediately efficient means is ready to our hands in the forcing on every Candidate for our influence the necessity of making himself acquainted with the subjects we have pointed out. We hold, therefore, that not only is it not improper, but that it is plainly the duty of every one of us to do all we can to return to Parliament Members possessing enlightened and instructed views on those topics. It may be said that it would be labour in vain to question Candidates on these subjects, for that they appear to reserve to themselves some power of interpreting their declarations in a non-natural sense; and that too often the confessions of faith of the Candidate and the votes of the Member differ very widely—the promises made on the hustings are forgotten, and the Member votes with his party; and that really independent Members are very rare, and rather useless and powerless. Party is, however, only formed by the concurrence, "fortuitous" or not, of atoms, and if every atom has passed under our influence promises are not so likely to be forgotten; still the charge is so far true that it gives us the right of inquiring how successive Governments or Parties have handled these matters, and how it is therefore likely that their supporters will vote on them. For instance, how has her Majesty's present Government treated the Profession?—how has it legislated on lunacy, vaccination, and so forth?

We cannot afford either time or space to enter fully into this question, we must hope that our readers will work it out for themselves; our impression is, that we owe very little indeed to her Majesty's present advisers, and we cannot just now call to mind any great measure of public health passed by them except the "Contagious Diseases Prevention Bill" passed this Session; while, on the other hand, we cannot forget the opinion held by the present Lord Chancellor as to the utter superfluousness of Medical evidence in cases of lunacy, nor the attempt to embody that opinion in the Government Lunacy Bill; we cannot forget that, in extending the Compulsory Vaccination Act to Scotland and Ireland, Government successfully carried out their usual principle of putting as much additional work as possible on the Medical man without any extra pay; nor can we forget that under the present Government the Magna Charta of the Army, the warrant of 1858, has been gradually utterly annulled, and the Army Medical Service almost destroyed; and that the companion warrant granted to the Navy is also ignored to such a degree that the discontent in the Navy Medical Service is only less than that in the Army. We will not again allude to Sir Charles Wood's late almost sublimely impudent attempt to do away with competitive examinations for the Medical service, we will instead congratulate him on having at last passed and sent out the new rules and regulations for the Medical service in India. We have not yet seen them, but it is said that they are wise and liberal.

In making these observations we must expressly guard ourselves against its being supposed that we wish to favour or recommend any particular Government—this journal has no party politics, and would hope for and try to obtain good measures on the subjects we have been treating of from any party that might be in power, whether Tory, Whig, Radical, or Compo—from any kind of government, whether that of Derby, Palmerston, Bright, Gladstone-cum-Bright, or of "any other man;" but we must confess that we think Medical men will be wanting in justice to themselves and to the interests committed to their charge if they do not remember the matter we have alluded to when they are asked for their "Vote and Interest" by Candidates for the honours of Parliament.

CHLOROFORM MISADVENTURES.

We don't in the least object to professional responsibility. When a man does any given act, on the due performance of which hangs the life of a fellow-creature, he ought to be, and to feel himself, answerable for any bad consequences which may follow from want of care or of skill. But then he must have discretionary powers to match; he must be a free agent, and not a mere tool of others, and must have his hands quite unshackled in all that relates to his own department. Any one who administers chloroform will do well to bear this in mind for the future, and may take more than one useful hint from the proceedings at a late inquest at St. Mary's Hospital. It was a great toe case,—an operation highly painful, but not dangerous to life, and unluckily not surrounded with that Surgical interest which begets intense caution at every step. It was, too, just on that part of the body which is shown to retain its morbid sensibility the longest. The chloroform was administered, and in a short time the patient was found to be dead. The *post-mortem* examination showed that there was fatty degeneration of the heart, which would enfeeble its action. Mr. Edwards, the chloroformist, said he examined the chest of the patient before the operation, *and although he thought him an unfavourable subject, he thought he had not the right to refuse to administer the chloroform, as he was called upon to do so.* On the other hand, Mr. A. B. Wall, who had attended the patient many years, thought there was no extra risk; neither did Mr. Lane, who significantly said that Mr. Edwards had not expressed any unfavourable opinion of the patient, and that if he had *he would have been relieved of the responsibility of administering the chloroform;* for, of course, if the Surgeons had determined on giving it after hearing his objections, they would have taken on themselves a responsibility which it was plainly inferred now rested with the chloroformist. The jury, after a long consultation, returned a verdict affirming that the patient died "from the mortal effects of chloroform, administered whilst he was labouring under organic disease of the heart, and that the said death arose from *misadventure.*" Not much in this, some may think; but they would be wrong. The verdict is not a verdict of "accidental death," but implies a grave censure, and so we once heard it laid down by the late Mr. Wakley at an inquest on a death from the same cause. "In a case of misadventure (a) the law presumes negligence, or at least a want of sufficient caution in him who was so unfortunate as to commit it; who, therefore, is not altogether faultless." But the law books show a number of fine shades by which what is "misadventure" at one time may be "manslaughter" at another; so chloroformists had better beware in time, and take care that their degree of responsibility is clearly laid down, and that a commensurate degree of authority go therewith.

It will never do for the future that the chloroformist shall, on the one hand, find himself saddled with a verdict of misadventure; and, on the other, that he shall be able to say to the jury, as Mr. Edwards did, "My duty is only to give the chloroform, and I know nothing of the patient." The first point every chloroformist ought to have cleared up is, who is responsible for the patient's fitness? and all justice and common sense show that this usually lies at the door of the persons who know the patient, and have treated him, and recommend an operation. It is absurd to require a young man, called upon to administer chloroform to a dozen patients in succession whom he has never before seen, to pronounce off-hand that each has no organic disease of the heart. In this very case the Practitioner who had attended the deceased for years, and the Surgeon who operated, knew nothing of it, and it would be preposterous to censure Mr. Edwards on this ground. It is quite clear that some one ought to be called on to say whether a patient is or is not fit to take chloroform,

(a) Chambers's Dictionary.

and that if this is to be the task of the chloroformist, he ought to be called in in consultation beforehand, and enabled to learn all the patient's history.

But with respect to this "disease of the heart." Let us be frank;—it is a little too like the "cat in the cupboard" that devours the cream and breaks the crockery. What are the evidences of diseased heart? Breathlessness, faintness, angina, or even gouty palpitation? But if these be evidences, where is the person past middle life who has a sound heart? If we except the most athletic young men in the prime of life, where is the man whose heart would not, if it could be got at, betray "traces of fatty degeneration?" As for the fat and lazy men, the lean and haggard over-anxious men, the studious sedentary men, and the fast men,—the women of all ages who lead town lives, the "motherly women," full-bosomed, the "fat, fair, and forty," or "fat, puffy, and sixty," and the people of either sex who have long been ill or bedridden,—what kind of hearts have they? We cannot see the heart, but we can see the calves of the legs, and judge that what makes the one wasted and soft will not spare the other. Then if we recollect the tricks of acute rheumatism and gout, we suspect that there are not five per cent. of the population above 30 whose hearts, if carefully cut up, would not betray some "traces of fatty degeneration," to solace the misadventures of the chloroformist. And are all these, the suffering and invalid part of our race, *par excellence*, to be denied chloroform in labour, or operation, or injury?

Most assuredly not. We entreat our dear brethren the chloroformists just to take for granted that all hearts are fatty, and to *take their time;* and then the patient will be safe, though his heart be ricketty, and there will be no misadventure. The chloroformist must make himself master of the situation. He ought to have the imperturbability of a Turk, and be as incapable of hurry as a German postillion. It is the fifth operation of the day! the theatre is crammed! the air vaporous and carbonised! the students anxious to get off to their afternoon lecture! and one of the great ornaments of Surgery, who has a dozen consultations before dinner, wants to get his last operation done! Never mind. The chloroformist should not budge an inch. The operator must wait for him. The timid young Practitioner attends Lady Frail at her dentist's, and spares her ladyship's consciousness the horrors of feeling a stump extracted. The patient is a little flurried, and sitting upright—all bad for chloroform. She gets a little noisy. "Can't you push it?" says the dentist, looking at his watch. Take your time, good chloroformist, we say, or there will be a misadventure. Entice the patient into sleep, slowly and gently. He cannot resist even a feeble vapour if given long enough. Put your faith in the rule of three. If 3 per cent. of vapour will stop a degenerate heart in four minutes, halve the vapour and double the time, and the heart will not stop. *Festina lente.* Put this label on your chloroform bottle, and there will be an end of misadventures.

THE NETLEY CEREMONY.

On Monday last the foundation-stone of a memorial to the Medical officers who died in the Crimea was laid by the Prince of Wales at Netley. The Hospital there was the favoured project of his father, and it has always engaged the sad and affectionate interest of our present Queen, after whom it has been called the "Royal Victoria Hospital." We receive this Royal acknowledgment of the services of the Medical heroes of the Crimea as a welcome earnest that our brethren of the army are not destined always to labour in the cold shade of neglect and detraction, and that justice, although long delayed, will, at no distant date, be done to their claims and their services.

The readers of this journal know how strenuously we have endeavoured to maintain a high view of our Profession, and it is because we think we perceive in this gracious act of our future King the era of a higher, fuller, juster, as well as a more public recognition of our position, that we dwell with grateful feelings on the event.

Whether we deserve, as a nation, the charge of sacrificing our honour to the worship of Mammon, as Lord Ellenborough more than hinted was the case, in his eloquent speech on the Danish question, is more than we can say; but we do trust that *that* day is far distant when members of the Medical Profession shall perceive nothing more ennobling in our art than mere money-getting. True enough it is that the labourer is worthy of his hire; but between seeking a fair or a high reward for worthy services and the sacrifice of everything to that end, there is a wide interval. Ours is a Profession which boasts—and truly boasts—of being cosmopolitan,—boasts of stretching out the hand of succour to the Jew, Turk, and infidel, as well as the Christian, without distinction of creed or clime. The evils which are common to that form in which our spirit dwells are so widespread as to embrace all within their circle, and to bring rich and poor within our influence and power. If this exercise of our art be so universal in its application, and if it be given to us mortal men to use these high functions, we ought, each one of us, to have a never-failing consciousness of the gravity and dignity of our office.

We have stood aloof from the public services of late. Among the hundreds of poor and able men in our Profession ekeing out their existence in genteel starvation, how few have clutched at the official bread to be obtained at the sacrifice of the position which they deem to be their due. This spectacle has compelled the observation of the authorities, and drawn something like words of approval, if not of admiration, from the leading journal. This position may be a proof of that "self-assertion" with which we are charged by the military organs. We can well afford to allow them the use of any designation they choose, so long as we remain thus true to ourselves. The inauguration of this memorial reminds us that there are very different degrees and very different qualities of courage. There is the courage belonging to temperament. This is the flashing, impulsive pluck which impels a man to lead a charge, or to acts of gallantry in the field, and is oftentimes the product of excitement, impulse, or enthusiasm. There is the courage which results from well-considered and well-determined resolve. This sustains a man through, it may be, a prolonged state of great nervous tension, and gives him a victory over self and a subjugation of corporeal defects to mental qualities or force of character. There is a courage, akin to, but far nobler than this, which arises from a very high and responsible sense of duty, and this leads a man to acts of self-abandonment and self-sacrifice. It warns a man that the noblest life remains unlived, and the noblest faculties unused, until he has learned how to live, not for himself, but for humanity. There have not been wanting, thank God, many examples of these different forms in our Profession. Match us, if you can, from the history of the last twenty years, any acts more noble than that exhibited by Thomson after Alma, or young Llewellyn going down with his ship rather than imperil the life of a single maimed man.

If the distinction between combatant and non-combatant officers has any real foundation, it is to be found, we suppose, in the fact that the functions of the first are directly and indirectly fighting—the killing of the Queen's enemies—and the other not so. True enough as this distinction is in the abstract, it fades into thin air under the actualities of war. The names of the hero of Corriegaum, Dr. Home, and Assistant-Surgeon Pile, would alone obliterate the line of demarcation. But this distinction would be of no consequence whatever to high-minded men, if they did not perceive that it was made the cloak for concealing acts of injustice. To dress a man as a soldier, attach him to a regiment, make him amenable to discipline, and compel him to share all the dangers of a campaign, in addition to those of disease, and call him a civilian, is a piece of intolerable cant; but this might easily be borne with if it only involved false reasoning.

When, however, a Medical officer of grey hairs and a service in all parts of the world finds himself on board a ship, commanded it may be by a Post-Captain, his younger brother, and is told that he must occupy an inferior position in the ward-room because he is on the civil list, while a Brevet-Major of twenty-five is to hold another and superior position because he is a combatant, this is an invidious and a scandalous distinction, to which we hope gentlemen will never tamely submit.

Thackeray, we know, sketched a Medical officer as one of his military snobs. Now, the better class of men abjure and detest the few examples of this type, as false to them and their Profession alike. We venture to tell the Government that this is the very class of men they are now introducing,—warlike youths of the Bob Sawyer stamp, who will be, ere long, blatant for spurs and scarlet.

Modest and high-minded Medical officers are compelled to see their Profession degraded in the eyes of their brother officers by the men denominated Acting Assistant-Surgeons, in addition to the feeling that these men stand between them and those just concessions which must come sooner or later.

We want to see a really good class of men in our public services, gentlemen by birth and education, with the capacity and training which shall fit them for becoming worthy representatives of the British Surgeon in other lands.

A few concessions and a considerate treatment are required to remove what has become a public scandal—the unpopularity of the Army Medical Department. There are hundreds of able men waiting to enter the army so soon as Government is prepared to treat with them on other than the present terms.

THE WEEK.

ST. THOMAS'S HOSPITAL.

At a General Court of the Governors of St. Thomas's Hospital, held on the 27th ult., Mr. Adams brought under the notice of the Court the "extravagant allowances," as he termed them, furnished to the Apothecary, Mr. Whitfield, who had had 942 gallons of porter and 36 tons of coals in the year; he also stated that 1336 dozen of soda water and lemonade had been supplied to the Hospital, of only 200 beds, in one year; and further, that there were serious deficiencies in the wine, brandy, and gin accounts; and all this he laid on Mr. Whitfield's shoulders. A motion was carried that the Grand Committee should investigate the matter, and till their report is made we shall not offer any observations on the subject, except that Mr. Adams's remarks, if they have any fonndation, appear to us very like an attempt to make Mr. Whitfield the scapegoat for what must have been a long-existing, and most scandalous, system of mismanagement and want of supervision.

THE WIMBLEDON ACCIDENT.

The public have been informed by Surgeon-Major Wyatt, of the Guards, through the columns of the *Times*, that the unfortunate guardsman who was shot through the lungs at the late Volunteer Rifle meeting continues to progress favourably, although the bullet, having fallen back into the cavity of the chest, now eludes any chance of detection. Fair hopes are entertained of his recovery. The Surgeon-Major thus criticises the tone of a paragraph which was copied into the *Times* from a Medical contemporary:—

"The writer of the paragraph relative to the sad accident which appeared as an extract from a Medical journal in your paper of Saturday last, would seem to maintain the propriety of a practice not sanctioned by the general experience of military Surgeons, and I therefore solicit space for a very few remarks regarding it. When a bullet lies near the surface of the body, and within reach of the Surgeon, after having penetrated one of the great cavities of the body, the sooner it is extracted the better. Its removal can do no harm, and must in general add to the chances of recovery. Whether in this particular instance the circumstances were such as to render some delay desirable I do not wish to decide; I feel certain that all must have been done which the most anxious regard for the sufferer could dictate. I regret, therefore, the unusual style of the remarks applied to myself, and that they should have found admission into the columns of the *Times*."

Without in any way entering on the controversy whether, under the circumstances, the ball ought or ought not to have been extracted, we may state that we have been informed on undeniable authority that the operation was delayed in consequence of a suggestion from Lord Elcho that, as there was some difference of opinion amongst the Surgeons present, it would be better to wait until one of the Medical officers of the man's own regiment, who was on the ground, could be fetched. By the time he arrived swelling and emphysema had proceeded to such an extent that any operative proceeding was generally acknowledged unadvisable.

TESTIMONIAL TO DR. COOKWORTHY.

A massive silver centre-piece, embodying several emblematical figures admirably wrought, was on Tuesday, July 26, presented to Joseph Collier Cookworthy, Esq., M.D., by the governors and friends of the Plymouth Public Dispensary, in recognition of the high value of his services during fifty years as Physician to that institution. C. R. Buller, Esq., said that in the retirement from active duty of Dr. Cookworthy the poor would lose one of their most zealous and best friends. Dr. Cookworthy in the year 1848 told them that the dispensary had relieved 60,000 patients, and since that date the number must have been doubled, if not trebled. If during the half century throughout which Dr. Cookworthy had given his gratuitous services he had been paid a small salary, the aggregate amount would be a large one; but not only had he received nothing from the funds, but he had himself been a regular subscriber to the institution. To this testimonial there had been 180 subscribers. Letters also were read from Admiral Woollcombe, Baldwin J. P. Bastard, Esq., Alfred Rooker, Esq., and other gentlemen, testifying to the pleasure with which they had joined in the movement, and the high place the venerable doctor held in their esteem. In consequence of the illness of Dr. Soltau, the testimonial was presented by a small deputation, who returned to the meeting with a very eloquent and touching reply from Dr. Cookworthy, in which he expressed his gratitude that he had been so far favoured with health and strength as to have been enabled to co-operate so long with his colleagues in promoting the objects of the charity—"carrying advice and medicine to the sick, who though not paupers, are not able to provide such assistance for themselves."

"I am well aware," he continued, "that a great outcry has lately been raised against the giving of gratuitous Medical advice, whereby, it is alleged, the Profession is robbed, and the recipients pauperised. That undeserving persons may occasionally be admitted to Hospitals and Dispensaries is possible and probable. They are few, however, compared with the many relieved, and the number might be lessened were not the Medical officers themselves desirous to err on the liberal side, and not to withhold aid without the clearest evidence of the incompetence of the applicant to pay for it. It is most true that in our Medical charities the services of Medical men is the life-giving element of the institution; that, whilst the money subscribed by the governors pays for Medical and Surgical appliances, the maintenance of the building, and the wages of servants—without the time, labour, and skill of the Medical staff the money subscribed would be unproductive of good. The Plymouth Public Dispensary has, however, always paid its Physicians' assistants. Two gentlemen in that capacity are in the receipt of £60 a-year each, and a like sum is annually paid to a dispenser; but I respectfully submit that other members of the Medical staff—the Physicians and Surgeons—are not without reward of another kind. They are more intimately associated with the governors, by whom they are treated with great consideration and respect; they enjoy large opportunities of witnessing disease in various interesting forms; they have at their command every necessary remedial means; they have the benefit of conference with each other in obscure and difficult cases; they thus gain experience, profitable alike to themselves and the public, and, though last, not least, a well-regulated intercourse with the

sick poor calls into exercise the noblest and best feelings of the human heart. Nor do I believe that the recipients of our services are either pauperised or debased by what we do for them. The result of my fifty years of experience is the very converse of this statement, and many Dispensary patients would, if they could, and do when able, gladly pay for what they receive. And, whatever may be said by objectors, I look back with unmixed pleasure to my labours among the working part of our community, and for them—to the grateful acknowledgment they have habitually rendered, to the confidence so long reposed in me, and to the pleasant intercourse with my colleagues, many of whom have gone to their rest—and my heart overflows with thankfulness for having been so long spared in health of mind and body, to have been, in some measure, useful in my generation."

Holding as we do that independent middle path which requires us at times to combat the errors of either opposite extreme, we have sometimes been compelled to denounce that tradesmanlike churlishness which has induced some of our number rather to let a poor creature die than relieve her unpaid, and at other times to rebuke that indiscriminate benevolence, falsely so called, which encourages the working classes in habits of improvidence. We are glad to see that Dr. Cookworthy recognises each kind of evil. On the one hand, there is no earthly reason why every Englishman should not look upon it as his own duty to pay his own Medical attendant as well as his butcher or his baker. On the other hand, since sickness takes away the poor man's power of earning, there is no doubt that public and private charity should step in, so that no one should lose life or health because he cannot pay his Doctor.

PROFESSOR HUXLEY'S LECTURES ON "THE STRUCTURE AND CLASSIFICATION OF THE MAMMALIA," DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.—LECTURE XXIV.—MARCH 26.

THE family of Lemurs (*Lemurini*) have, like most of the other groups of the primates, a peculiar geographical distribution. Their head-quarters are in the island of Madagascar, extending from thence, in one direction, as far as the islands of the Indian Archipelago, and in the other, to the West Coast of Africa. They are all plantigrade or semi-digitigrade; their hind limbs exceed in length the fore limbs sometimes (as in *Lichanotus*) to a very marked extent. They have always a strong, large, and opposable hallux on the posterior extremity, and a well-developed and opposable pollex, so that they do not follow the American monkeys in the regular line of degradation from the human type, but may be considered to belong to a series organised upon a somewhat different type from that of the higher Primates. They have neither cheek pouches nor ischial callosities. As a general rule, the fourth digit exceeds the others in length, especially on the hind foot. In some of the genera (as *Stenops*) the index finger is singularly reduced in size; in the Potto it is a mere tubercle without a nail. The nails on the digits generally differ from those of the American apes in being flat, though on the second finger in both hand and foot they are curved, sharp, and claw-like. The ears have not the characteristic form seen in the other groups of the Primates, but stand out from the head, are pointed, and frequently covered with hair. The nose is elongated, and the nasal septum narrow, the apertures twisted on themselves, a circumstance which gave rise to the name *Strepsirhina* frequently applied to the group. The penis is pendant, the testes lodged in a well-developed scrotum. The teats are commonly only two, but sometimes four or six, and placed in the abdominal region.

The osteological character of the Lemurs resemble generally those of the Platyrrhine apes. The atlas differs, however, in having an expanded lateral process, like that of the carnivora. The lumbar region is elongated, the vertebræ composing it in some cases attaining the number of nine. The sacrum is narrow, and composed of few vertebræ. The carpus has nine bones. The ilia are very long and narrow, and the ischia are not everted. In most genera the tarsal bones resemble those of the Primates generally, but in one group, composed of *Otolicnus* and *Tarsius*, they have undergone a remarkable modification. In most animals where the distance between the heel and the digits is greatly increased, as in the horse, kangaroo, or jerboa, this is effected by an elongation of the metatarsal bones; but in these lemurs alone the anterior portion of the calcaneum and the scaphoid bone are drawn out so as to form two long cylindrical bones, placed side by side, the astragalus remaining of the usual dimensions. The skull of the Lemurini presents a great descent from the lowest forms of the true apes. Its general form is like that of a dog or fox, the cranial cavity being small, contracted in front, and placed altogether behind the facial portion. A section shows that the proportion of the greatest cerebral length to the basi-cranial axis is relatively very small, and that the ethmoid, tentorial, and occipital planes are much more inclined than in the monkeys. Two other great distinctions and signs of inferiority are the continuity of the orbit with the temporal fossa, always shut off from each other by a bony septum in the preceding groups, and the situation of the lachrymal foramen, not in the orbit, but just outside its margin, on the face. The premaxilla is comparatively small; the palate elongated, with, in many species, a considerable thickening of its posterior edge.

The dentition is much changed from that of the monkeys, and varies in character and number of teeth in the different groups. In the more typical forms the dental formula is—

$$i\,\frac{2-2}{2-2} \qquad c\,\frac{1-1}{1-1} \qquad p\,\frac{3-3}{3-3} \qquad m\,\frac{3-3}{3-3}=36$$

The upper incisions are placed vertically, but separated from one another by a wide interval; the lower incisors are closely approximated, long, and compressed laterally, and extremely proclivous. The upper canines are large and pointed as usual, but the lower canines resemble the incisors, to the outer side of which they are closely applied. The anterior premolars are triangular and sharp pointed, the crown of the lower one is developed into the form of a canine, but its real nature is shown by its fitting behind the upper canine when the mouth is closed, instead of in front of it, as is the case with the true inferior canine. In the pattern of the true molars, especially those in the upper jaw, a resemblance is seen to the highest type of the primates in the ridge connecting the anterior internal with the posterior external cusp.

The sublingua or under-tongue in all the lemurs acquires very considerable proportions, and is often denticulate or comb-like at the extremity. The stomach is simple, the cardiac and pyloric apertures approaching each other. The cæcum is very long, and has no vermiform appendage. In the vascular system of some species (*Stenops tardigradus*, &c.) there is a remarkable arrangement of the great vessels of the limbs, first described by Sir A. Carlisle, and similar to that found in the sloths; both artery and vein break up into a large number of branches, which run for some distance parallel to each other and then reunite into a single trunk. The arrangement of the muscular system is in the main the same as in the apes. In *Stenops tardigradus* the flexor longus pollicis and the flexor profundus digitorum are distinct muscles; the tendon of the first divides into branches for the pollex, and the second, third, and fourth digits, the second also gives a branch to the pollex and to the fourth and fifth digits; so that there is here a complete arrangement of these tendons approximating to that ordinarily found in the foot. The laryngeal sacs never acquire any large development. In the brain we meet with a great descent in the scale; the cerebral hemispheres are small, flat, pointed in front, and so short behind as not to cover the cerebellum; still, however, the same lobes can be distinguished as in the higher Primates, and in the few sulci and gyri which remain on the surface the same general pattern can be traced. On the internal face of the hemisphere the very significant calcarine fissure is very distinct. The olfactory lobes are large, and project considerably in front of the cerebrum. In the male the penis is pendant, and contains a bone; the testes are lodged in a well-developed scrotum, and the vesiculæ

seminales are usually, but not always, present. In the female the clitoris is perforated by the urethra, and the uterus is divided into two cornua. The placenta appears to be discoidal.

Closely allied to the Lemurs is a creature which presents so many peculiarities of structure that it must be placed in a division by itself. It is the Aye Aye, or *Cheiromys*, constituting the family *Cheiromyini*. It is a native of the island of Madagascar, arboreal and squirrel-like in its habits, and was originally taken for a Rodent, on account of the peculiar character of its dentition. The nails on all the digits of its fore-limb are compressed and claw-like; the pollex is scarcely opposable, and the middle digit is excessively attenuated. In the hind foot all the claws are compressed, but that of the hallux, on which the nail is flat, and which is freely opposable. The dentition differs entirely from that of the other lemurs, there being two large, strong, curved incisors above and below, with persistent pulps and enamel only in front, no canines, and one premolar and three molars on each side above and below.

An outline has now been given of the anatomy of seven distinct groups of the mammalia, which have been respectively named:—1. Anthropini; 2. Anthropomorpha; 3. Cynopithecini; 4. Platyrhini; 5. Arctopithecini; 6. Lemurini; 7. Cheiromyini. We may now recapitulate the characters common to these seven groups which separate them from the remainder of the class. Their teeth never exceed two incisors, three pre-molars, and three molars on each side, above and below. The hallux is always complete, and always provided with a flat nail (except in individual instances in the orang). The brain has always a posterior lobe and (as far as is known at present) a calcarine fissure. The placenta is deciduate and discoidal. These characters taken together are only met with in members of one of the above seven groups, and suffice to combine them together in one larger division or *order*, to which the Linnean name Primates may be retained—used, however, in a more limited sense than in the *Systema Naturæ*.

We may next inquire whether the seven families may not be grouped together into larger divisions, showing their mutual affinities and the position they hold in the order. The Lemurini and Cheiromyini naturally separate themselves from the others, being distinguished by the lachrymal foramen situated outside the orbit; the free communication between the orbit and temporal fossa; the two-horned uterus and the clitoris perforated by the urethra. At the other end of the series the Anthropini (Man) are separated by distinct characters from all below them, though the interval of separation is not so great as in the last case; they are distinguished by the peculiar distribution of the hair on the body, the habitual erect position and all the anatomical peculiarities dependent on this, the order of succession of the teeth, the very early effacement of the premaxillary suture, the peculiar law of growth, and the great absolute mass of brain. The divisions of the order Primates may then be arranged in the following manner:—

1. *Anthropini.*	Anthropidæ.
2. *Anthropomorpha.*	Simiadæ.
3. *Cynopithecini.*	
4. *Platyrhini.*	
5. *Arctopithecini.*	
6. *Lemurini.*	Lemuridæ.
7. *Cheiromyini.*	

FROM ABROAD. — ACTION FOR A CRITICAL OPINION ON A PESSARY — MOVEMENT FOR INCREASE OF PROFESSIONAL REMUNERATION IN THE UNITED STATES.

A curious trial, involving the question of the right of criticism, has just come to an end at Paris. A *bandagiste*, one Grandcollot by name, brought an action against MM. Goupil and Bernutz, on the ground that in their work, "Clinique sur les Maladies des Femmes," they had systematically depreciated the advantages of a pessary invented by him, supporting their depreciation by cases unfaithfully reported. He laid his damages at 25,000 francs, and demanded that the decision which he anticipated in his favour should be inserted by the defendants in thirty newspapers, together with a rectificative notice in the unsold copies of their work. Little, however, did the *bandagiste* take by his motion, being, indeed, mulcted in the damages, inasmuch as the Court declared, after two days' investigation, that the passage complained of, which estimated the advantages and disadvantages of the pessary in question, bore the stamp of moderation and good faith, and in nowise transgressed the limits of Professional criticism, which is the right of all, and, in the liberal interest of science, before all things. The Court also decided that the allegation of the publication of inexact accounts of the cases in which the pessary had been used was unfounded.

If the question of Professional remuneration is one of great importance among ourselves, it is one of the most vital interest for our brethren of the United States. There, as everywhere else, the Profession is the first to lose and the last to gain in all fluctuations of value, owing to the fee being still paid by a nominal sum which has long lost its real significance. The greater extension of practice or the more prompt payment of bills may in some instances compensate to a certain extent for the deficiencies, but the establishment of a just equilibrium is a tedious process. The editor of the *American Medical Times* urges agitation in the matter, declaring that impoverishment and bankruptcy must become the lot of most if matters are to continue in that country as they are; and he certainly sounds the proper key-note when, after showing how Medical men are expected to labour for little or it may be for nothing, at all hours and seasons, he says,—"The truth is, Medical men have never properly estimated the importance of their services, and have consequently placed an inferior, we might better say, a degrading, pecuniary value upon them. For nothing is more certain than that the Physician who places a high estimate upon his Professional opinion, and never gives it without ample compensation, makes a better impression than he who takes small fees. The conduct of the former shows a proper degree of self-respect and self-appreciation, and that inspires respect and confidence in others." He urges well-united combination for the purpose of raising the tariff or "fee bill," deeming the moment opportune now the country is rich and accustomed to prompt payments. "But to be successful, every member must adhere with scrupulous exactness to the terms of the bill. It will not do to bind the younger members, who are struggling to obtain business, to a rigid adherence to the new and advanced rate, and allow some older Practitioner of the same vicinity to compromise with his patients, and finally charge according to the old rates. This dishonest course is sometimes taken, and even by apparently respectable persons. The movement should be universal throughout the country, and be binding alike upon all."

*** The report of the meeting of the British Medical Association at Cambridge in this and the next number of the *Medical Times and Gazette*, obliges the postponement of the "Medical History of Birmingham" until the Number for August 20.

Lobelia Inflata.—Professor Barailler, of Toulon, from the trials he has made of this substance, comes to the following conclusions:—1. In its physiological relations, the lobelia exerts a manifest influence on the nervous system, and principally on the functions of the pneumogastric nerve, which, under its influence, become perverted and especially exaggerated. 2. Therapeutically, this plant exerts a real sedative action on the innervation of the respiratory organs, as shown by the excellent results obtained in all morbid conditions characterised by dyspnœa, as seen in the various forms of asthma, phthisis, chronic bronchial catarrh, at the termination of pneumonia, and in certain diseases in which an alteration of the blood exists, such as chlorosis, anæmia, etc. This sedative or stupefactive action of lobelia has been put to good account in certain external lesions, among which are painful wounds, as also in contraction and rigidity of the cervix uteri during labour.—*Bull. de Thérap.*, vol. lxvi., p. 108.

THE THIRTY-SECOND MEETING

OF THE

BRITISH MEDICAL ASSOCIATION,

HELD AT CAMBRIDGE ON WEDNESDAY, THURSDAY, AND FRIDAY, THE 3RD, 4TH, AND 5TH OF AUGUST.

DR. PAGET, PRESIDENT.

MEETING OF WEDNESDAY, AUGUST 3.

THE meeting of the British Medical Association was opened, for the present year, on Wednesday last, August 3, at the old University town of Cambridge. It had long been the wish of the members of the British Medical Parliament to assemble at this great and venerable centre of learning; it had also long been felt that here there would be a meeting of no ordinary character; that the place itself would be inviting, that its history would light up enthusiasm, and that the visitors who should come and go would come assured of a substantial pleasure for the brief season of three days, and would go bearing away remembrances that would last for a lifetime.

So far as we can at present report, these expectations are being amply realised. The meeting, up to the present moment, has been an undoubted success, and the business that has been conducted has been carried out with great vigour and with excellent feeling. Early on Wednesday morning visitors began to arrive, and at eleven o'clock one of the committees, the "Provident Relief Committee" (of which more anon), was called together in the Arts School. At twelve the Committee of Council, which is, in fact, the executive of the Association, was in its place, and at half-past two the General Council of the Congress had assembled in good numbers. The General Council, a body elected by the branches of the Association, is in itself a considerable society, larger than most other Medical societies of the kingdom. Sir Charles Hastings is President of the Council for life, and, in fact, his office is the most responsible of all the offices, although, of course, for the moment that of President of the Association, —this year most worthily held by Dr. Paget,—is the more distinctive and prominent. Various matters of great interest came before the Committee of Council, and of the General Council; and so soon as the sittings commenced, it was felt that the present meeting would be one of mark. The topics, up to this time, that attract most attention, and on which conversation is most earnest, are the "*Hastings Prize*," the "*Provident Relief Fund*," "*Medical Education*," and the "*Army Medical Service*." The "Hastings Prize" has not before been awarded, and the presentation is therefore an interesting feature of this meeting. The prize consists of a gold medal of the value of twenty guineas. It is given by the Association, and is named the "Hastings Medal" in honour of the founder of the Association. The prize was proposed in the year 1860-61 by Dr. Richardson, and has been put up for competition three times. Twice the judges have reported that no essay sent in was worthy of the distinction, but this year they have received one which, in their opinion, merits the honour. The man who has won the spurs, and who will, we hope, long wear them, is one whom we all know, Dr. Thudichum. The subject of his prize essay is the colouring principle of the urine, "*Urochrome*." In this essay Dr. Thudichum, we understand, claims to set forth an entirely new discovery—viz., that the colouring matter of the urine is a distinct substance of a yellow colour; it can be isolated, when it is found to be very soluble in water, not very soluble in ether, and scarcely soluble at all in alcohol. The colouring matter is not derived, as has been assumed, from disintegrated blood corpuscles, but is an excretion *per se*—when urine is of a high colour, red, the peculiarity is due to oxidation of the colouring principle—urochrome—which always becomes red when oxidised, and not to any increase in the urine of the red colouring matter of the blood.

Dr. Thudichum also asserts that there is a volatile oil in the urine of man, on the presence of which the peculiar odour of urine depends. But we must not lengthen this description; suffice it to say that the essay promises to do great credit to the Association, and not less so to the learned author, who has our best congratulations on his success. We shall look out for the publication of his work with interest.

The Provident Relief scheme of the Association comes on for discussion on Friday morning, and must be rendered in our pages next week. We may remark that if this plan is carried out in the way that is expected, it will be one of the greatest blessings conferred on the Profession, and perhaps up to this time will be the most important work of the Association. The fund, for a small payment to it a-year, will afford to every sick member who may belong to it a fair income, say at the rate of £100 for the first year of illness, and a smaller sum for one or even two years more. The organisation intended for carrying out this truly beneficent and economical work has been, during the past twelve months, under the consideration of an active committee, and every fact that could be obtained has been got. But more of this at another time.

FIRST GENERAL MEETING.

The first general meeting of members was held at four o'clock. The Senate House, a handsome building, but too small, we believe, for many university occasions, formed a fitting place for debate and learned reading. The academic dress worn by the President elect, and by many other professors, gave character to the picture, and made one think that at all meetings of the Association the Doctor's gown would hang gracefully from the shoulders of the President. When the members had collected, Dr. Symonds, of Bristol, took the chair, and in an address marked by that quiet eloquence, good sense, and good feeling, that characterises at all times the labours of this estimable provincial Physician, opened the proceedings by resigning his chair to Dr. Paget. In his short and telling speech Dr. Symonds congratulated the members on the fact that they had met "in the centre of learning." He thanked them for the support they had given to him in his years of office; he spoke with much warmth on the importance of the Provident scheme, which had his entire support; and then, remarking that another year of the Association was closing, he announced the year coming in Tennyson's lines:—

> "There's a new foot on the floor,
> My friends;
> There's a new face at the door,
> My friends;
> There's a new face at the door."

Dr. Symonds, at the close of his speech, was loudly cheered, and Dr. Paget having taken his place, so soon as the enthusiasm of his reception was over, delivered his introductory address.

THE PRESIDENT'S ADDRESS.

By GEORGE E. PAGET, M.D., F.R.C.P.,
Physician to Addenbrooke's Hospital, and
Linacre Lecturer on Physic, Cambridge; Member of General Medical Council; formerly Fellow of Caius College, Cambridge.

GENTLEMEN OF THE BRITISH MEDICAL ASSOCIATION,—My first duty is to thank you, which I do most heartily, for the distinguished honour you have been pleased to confer upon me in electing me your president. My second duty, and my privilege, is to speak in the name of your associates here, and bid you welcome to Cambridge.

We are met within the precincts of an ancient and famous University; so ancient, that its origin is lost in the mists of ages, and one which claims as her sons not a few of those whom educated men have delighted to honour as their noblest representatives in literature and science.

You will excuse a Cambridge man if he feels some pride in welcoming you to the University of Spenser and Milton—of Wordsworth and Tennyson; in pointing out to you the spots where Jeremy Taylor and Isaac Barrow became so learned and so eloquent; where Bacon first perceived the right road to scientific truth, and where Newton discovered the laws of gravitation: where Ray saw, and made others see, the wisdom of God manifested in the works of the creation, and where Harvey acquired at least that correctness in reasoning

which qualified him to interpret aright the facts of anatomy, and demonstrate the circulation of the blood. And, before such an audience, I am reminded that Caius and Glisson, Heberden and Woollaston, have a place among our Cambridge worthies; and that, were I to speak of living Physicians, I might mention other names as familiar in your ears and not less honoured.

Yet I must tell the plain truth, even though it may disparage in your esteem the University I love so well, and which, let me add, no man can fail to love and honour, who knows, as I know, its great and varied excellences.

In addressing this great Medical Association on its first visit to Cambridge, I cannot avoid—so, at least, I have been told—I cannot avoid speaking of the University in reference to medicine; and, in so speaking, I must admit at once that its Medical school is but a small one; and if it is to be assumed that the office of an university is to make Physicians, and the reputation of an university is to be measured by the number it makes, I should have to confess that Cambridge has fallen short of its duty, and has no claim to a high reputation. But if the office of an university be rather to educate men into the capacity for pursuing any profession, and, as regards its Medical students, to train them in all that which "quamvis non faciat medicum aptiorem tamen medicinæ reddit;" to take care that their Medical knowledge be well founded, and that they do not obtain a Medical degree until they have given the fullest proofs that their knowledge, wheresoever acquired, is real and at a high standard,—if these be the duties of the University of Cambridge, then I have no fear of criticism.

It is true that the courses of Medical lectures delivered here, both have been and are, less numerous and extended than those given elsewhere in the great schools of Medicine; but it may be questioned how far this is a fault. Few persons doubt now, that in those great schools of Medicine, where talent and industry and zeal have striven to give instruction in its utmost completeness, the students have been passing too much of their time in listening and too little in reflecting; that there has been too much teaching and too little time for study. The Medical lectures delivered here have, at least, served well as an introduction to Medicine; and the University has always encouraged its Medical students to complete their Professional education elsewhere, at the chief schools of Medicine in large cities, where the extent of population and other circumstances afford to the advanced student certain advantages for practical instruction beyond those possessed by Cambridge.

So much for the Medical teaching. With regard to another academical function—that of granting Medical degrees—I need not say much. The University has been always more solicitous about the character than the number of those on whom it confers its titles and privileges. The standard of requirements for its Medical degrees has always been high: the period of study for the degree of M.D. was formerly ten years, and it is now eight; all students are required to reside within the University for three academical years, during which they are subjected to discipline and moral training, and receive their social education; they have to devote a considerable part of this time to general studies, which have always been insisted on here, and are now everywhere acknowledged to be an essential preparation for that of Medicine. The examinations have been efficient. The system of paper examination, which is now so generally adopted, had, I believe, its origin in Cambridge, and certainly was for years in use here for Medical degrees, while elsewhere, in places which we should all name with respect, Medical examinations were still conducted after the antique fashion—orally in Latin. The clinical examination, also—the most efficient test of practical knowledge—was first introduced here. I have the satisfaction of remembering that it was introduced by myself three-and-twenty years ago, and it has never since been discontinued.

The granting licences to practise Medicine involves a responsibility which can be measured only by human sufferings and human lives. The plain duty of the University is to take care that its Medical graduates are skilled in their Profession, and this first duty has not been neglected. But the University has aimed at something more than this. Its desire has been, and I trust ever will be, that its Medical graduates should be men of liberal education in the best sense of the words; that they should have a position in society fully equal to that of the other two learned professions; that they should be qualified, as far as education can prepare them, for advancing those sciences which are to be the study of their lives. And Cambridge has recently shown its belief, in opposition to what has seemed generally accepted, that there is the same value in general scientific or learned training for Surgery as for Medicine; the University now confers on Surgery the distinction of an academical degree, and has fixed the requirements for its Mastership in that art almost exactly on a par with those for its Bachelorship in Medicine.

So much for Cambridge in matters strictly medical; and I think it may be fairly held that the university has in these things not been negligent of its special duty. From this association I believe that the university may fairly claim honour for having done its share in upholding the dignity of the Profession of Medicine.

But the university has been charged with backwardness in other sciences in which we are interested—the sciences collateral to Medicine—the group which makes up the subject of natural history.

Now, if I were asked whether this charge be well founded, I might answer by pointing to the teachers and the taught—to Sedgwick, Miller, and Babington, to Berkeley, Darwin, Ansted, Jukes, and others. But I would not so evade the question. I would rather say, that Cambridge has not done enough in natural history. This is, indeed, what I have maintained and acted on within the university for many years on all suitable occasions. Nevertheless, as I cannot shut my eyes to the shortcomings in other places, I feel inclined, not, indeed, to exonerate my own Alma Mater, but to distribute the reproach impartially amongst all the defaulters. And, moreover, if Cambridge is to be blamed, it would be unjust not to discriminate between the general academical body and the individual colleges. For it cannot be admitted that the university as a body is indifferent to the natural history sciences. Visit its museums, and judge for yourselves. You will see what the university possesses in comparative anatomy, and (in justice I must add) how much it owes to the zeal, the labours, and liberality of Professor Clark; you will see museums of geology and mineralogy, of which any university might be proud; you will, I regret to say, not see, or not see to advantage, the botanical and zoological collections (the former a very rich one), but you may see the buildings, recently erected at great cost, in which those and the other collections will ere long be better displayed and made more available for study. And when you have also taken a stroll in the Botanical Garden, you will, I think, admit that, altogether, you have seen substantial proofs that the university does take an interest in the natural history sciences.

Again, nearly all of these sciences have been long taught, and well taught, in this place; and willingly studied too.

Three-and-thirty years ago, when I was attending the botanical lectures of the late Professor Henslow, his class numbered upwards of sixty, whose attendance was perfectly spontaneous. And who does not know our eloquent Professor of Geology? He has been lecturing here for nearly half a century, and the number of his hearers has generally been limited only by the size of his lecture-room, and that is not a small one. Moreover, the University now invites the great mass of its students—*i.e.*, all who are candidates for the ordinary degree of B.A.—to select for study some one of these sciences as part of their academical course; and it has established the Natural Sciences *Tripos*, which is an honour-examination in the entire group of these sciences, and has been recently so improved and extended as to be now of equal scope with the examinations for mathematical and classical honours.

But, notwithstanding all this, the fact still remains that Cambridge, so well known for classical scholarship and mathematics, and which supplies professors in these subjects to other universities, is but little thought of as a school of natural history or Medicine.

What are the causes of this seeming anomaly?

Well, a glimpse of them may, I think, be seen in the general fact that no university is, or ever was, equally distinguished in all branches of learning:—that one university is most famous for one kind of learning, and another for another kind. Such was the case in olden times, and such is the case now. For a long period the University of Paris was, on the whole, the most renowned university in Europe, yet its Medical school was surpassed in turns by those of Salerno, Montpellier, Padua, and Leyden. And modern times present abundant instances of like kind—instances of universities eminent for their schools of theology, or law, or Medicine, or mathematical science, or classical learning, but eminent in one or two only of these subjects, and inferior in the rest.

Indeed, a special eminence in one or two subjects is apt to become an actual cause of inferiority in the rest; for it quickly

becomes absorbing and exclusive. It attracts to the university those who have shown in early life a natural aptitude for the special branch of study, and who seek the spot where their peculiar talents will be best cultivated and most appreciated and fostered; and in course of time these students add the lustre of their own reputation to that of their Alma Mater, and so enhance her special eminence; and some of them become her leading spirits, and their tastes and predilections influence academical opinion, and tend to exalt still higher the prestige of their own favourite science. And the influence of this prestige is felt by all the students; even those who have come to the university with a different purpose are liable to be diverted from it by the attractions of studies holding a higher place in academical estimation. The late Lord Langdale came to Cambridge as a student of Medicine; he renounced physic for mathematics, and was rewarded with the highest honours of his year. Isaac Barrow came hither to study Medicine; he exchanged it for divinity, and became the greatest theologian of his time.

For a very long period the special eminence of Cambridge has been in the mathematical sciences and classical scholarship. These have been, and still are, the favourite and favoured studies. And can we wonder it should be so in the school of Bentley and Porson; or can we blame a preference for mathematics in the university that has produced a Newton?

When we consider how unready both individuals and institutions commonly are to change the systems in which they have prospered and gained just renown, it seems less strange that Cambridge has done so little than that she has done so much towards admitting to terms of equality with mathematics and classics any sciences or studies whatever.

But the prestige of the favourite studies has been enhanced beyond measure, and is constantly maintained, by that which is not in the power of the university to alter—namely, by the exclusive encouragement they have received from the colleges, which, in regard to the disposal of their own funds, are wholly independent of the general academical body. The numerous scholarships and fellowships which are in the gift of the several colleges are intrinsically very valuable, and have been awarded for a long series of years with the most scrupulous impartiality, so that they have become the crowning honours of successful talent and its highest incentive to industry and emulation. Now, these rewards have been given by the colleges almost exclusively for proficiency in mathematics or classics. The natural result has been a virtual discouragement of other departments of science, for all students who are ambitious of distinction or in need of emolument—all who have talents and desire to use them—have been stimulated to devote themselves to mathematics and classics, and seek the rewards of their labour in the only paths by which they could be reached. But brighter days are dawning. Already in some of the colleges a proficiency in the natural history sciences has gained scholarships, and in a few cases helped candidates for fellowships; and there is good reason to hope that before long these sciences will receive from the colleges generally their due share of encouragement.

In fairly considering the whole matter we must not forget that the chief function of the University of Cambridge and of its colleges is general education, and that to fulfil this function they must choose for the principal subjects of study those which are best suited for developing and strengthening the more important faculties of the mind. Now, it may well be maintained, and is implicitly believed here, that the study of mathematics and of language—as exemplified in the classical writers of Greece and Rome—are, above all other studies, those which best fulfil the purpose of a liberal education. This is a question which might be discussed and debated at far greater length than would be agreeable either for you to hear or me to speak; but at least thus much is certain, that there are no faculties to be educated more important than reason and language, and that mathematics and classics have been recommended for this purpose by many of the most thoughtful and discerning men in all ages, including our own.

And it must not be overlooked that mathematics, as studied at Cambridge, are not merely an exercise of rigorous reasoning, but include the whole range of physical sciences to which mathematical processes have been applied—all that is comprehended under mechanics, hydrostatics, optics, and astronomy, and which, by the way, cannot be thoroughly followed or understood without a knowledge of such processes. And that the mathematical training has not been barren of results, there are abundant living proofs—Herschell, Airy, and Whewell, Stokes and Adams, William Thomson, of Glasgow, and a host of others.

In short, the mistake of the colleges has not been in their encouraging mathematics and classics, but in encouraging them too exclusively, and in not recognising the fact that natural history includes subjects of which no man pretending to culture should be wholly ignorant, and that it furnishes the best supplementary means of educating certain faculties—particularly those of observation—which are not adequately cultivated in the two more favoured studies.

I regret that a desire for precision in what relates to Cambridge has led me into wearisome details. But the general question whether the study of natural science should become an established part of the education of the higher classes, is a subject of such interest as to need no apology for its introduction before any audience, and, least of all, before you. It is not only one of the great educational questions of the day, but a question in the right solution of which no class is more interested than is our Profession. I confess that to me it seems high time to consider whether natural science might not be useful as part of a liberal education, when an author of great distinction and undoubted learning—one whose writings have been rewarded with the applause of the educated world and with some of the highest dignities in the gift of the Crown—states, as a "well-attested fact, that a man's body is lighter when he is awake than sleeping, a fact (he says) which every nurse who has carried a child would be able to attest;" and concludes, from these well-attested facts, that "the human consciousness, as an inner centre, works as an opposing force to the attraction of the earth." I quote from a seventh edition, revised.

To my mind, the necessity for more general instruction in natural science needs no further proof, when ladies and gentlemen appear in a court of law to vouch their belief in the supernatural powers of a crystal globe; when those who are called highly educated throng the necromancer's consulting-room to hear disembodied spirits rap on his table; when they daily become the dupes of barefaced quackeries; and, while avowing their belief in what is absurd or even impossible, plume themselves on their superiority to prejudice—regard themselves with complacency as walking in the spirit of the age—as being *au courant* with its progress—and indignantly remind us of the persecutors of Galileo, if we question the accuracy of their facts or the logic of their conclusions.

Whatever may be thought of the enlightenment of the present age, there can be no doubt of the readiness and boldness with which it forms or avows its opinions. Far be it from me to question the birthright of an Englishman, to judge of all matters, whether he understands them or not. The right of private judgment is the most precious of civil rights; but it may occasionally make fools of us, when exercised upon questions in which we are uninstructed. Even freedom of thought is not an unmixed good. It stirs a community in all directions—not always in the direction of progress. In the unwise and presumptuous it is often the parent of mischievous errors, that find ready acceptance among the ignorant and indolent, and cost for their removal much time and trouble of wiser men. It is easier to refute errors than to remove them. Ignorance must be instructed, self-sufficiency must become modest, before it can be convinced.

I have sometimes fancied that the rapid succession of brilliant discoveries and inventions which has characterised the present age, and should have enlightened it, has actually enhanced its credulity for the pretensions of quackery and imposture; that the unexpected and unimagined achievements of true science have so dazzled the minds of people as to render them more accessible to other marvels, whether true or false, and more ready to yield unquestioning belief in whatever is new and wonderful. As, in times of old, the heroic deeds of a Hercules or King Arthur led their admiring countrymen to ascribe to them other achievements, not only unreal, but impossible,—or, as in the sixteenth century, when men's minds had been roused and agitated by the spiritual preaching of the Protestant Reformers, a readier credence was given, not to spiritual truths only, but also to spiritual and mystical errors,—then was the time when enthusiasts abounded, whose imagination called up before their eyes every object they desired to see,—then it was that astrology was the most widely spread and most generally studied as an useful science,—then it was that demons were classified, and that witches were burnt in thousands. Then, even self-reliant intellects that had thrown off the yoke of ancient beliefs yielded a ready credence to almost anything which had a spiritual semblance. Melancthon

was one of the chief defenders of astrology. Luther attributed diseases to the immediate agency of the devil, and was indignant with the Physicians who referred them to natural causes. Paracelsus and Cardan, while shaking the popular faith in ancient physic, rested their own on cabalism and astrology.

In the old city of Aberdeen, sorcery had lain undiscovered, though the holy clerks of King's College had been there for a hundred years, ready at any time to have exorcised it with bell, book, and candle; but in the fourth year after the founding of Marischal College, and the spiritual teaching of its Protestant professors, twenty-four witches were burnt alive for dancing with the devil around the market cross.

As the minds of men in those days, when awakened to new and deep spiritual convictions, were opened also to mystical errors, so in the present day, when startled with scientific wonders beyond their comprehension, do they gape at, and swallow indiscriminately, everything new that is presented to them under the outward guise of science: and this while they are disposed rather to scepticism than credulity in matters of ancient belief.

Truth, it has often been said, is stranger than fiction. They that use the proverb have commonly in view only the events of history or of social life. But it is equally true, if we compare the established facts of science with the pretended facts of fraud or quackery. If you tell an uninstructed person that you can talk easily and fluently with a friend a thousand miles off, can write to him at that distance in letter or in cypher, whichever he prefers, and that all the help you need is in some pieces of zinc and copper, and some acid and a long piece of wire, and a thing something like the face and hands of a clock; and then tell him, that by merely resting your fingers on a table you can make it turn round and stand on one leg, and then move of itself about the room; both things may seem to him very strange, very wonder-moving; but surely the truth here must seem stranger than the fiction: to an uninstructed person table-turning must seem at least as credible as electric telegraphy. Or, again, if you were to tell him that there are rays of light which give no light: that, when separated from other rays and admitted into a darkened room, they cannot be seen—they give no light, and the room remains as dark as before; and yet, that Professor G. G. Stokes has made them visible, has made those dark rays shine and give light in the room, merely by intercepting them with a solution of a salt of quinine contained in an ordinary glass:—and if, then, an advocate of homœopathy were to expound to the same hearer his views of the action of medicines, surely the dogmas of Hahnemann (unproved and unsound as we know them to be) may seem to the uninstructed person no more strange or incredible than what you had told him about the rays of light, though the latter be well-assured facts, that can be verified at any moment, and are in harmony with the whole body of optical science.

It is plain that by no instinct, no common sense, no natural power, can any man discern between truth and untruth in these matters: to the uninstructed in sciences of observation the truth must seem stranger, less credible than the fiction. It is to this want of special scientific instruction that we must ascribe the popularity of error. For it must be admitted, that they who believe the fictions are not all, in a general sense, fools; there are among them prudent statesmen, astute lawyers, faithful ministers, discreet housewives—such as in their several callings we might be content to take as our guides. And yet, because of their want of scientific training, their want of that knowledge which would tell them what it takes to establish a real fact in science, they are unable to distinguish truth from its counterfeit, or to gainsay the pretensions of quackery and imposture.

How, then, can people be guided to a better judgment in these things? Chiefly by being themselves in some measure instructed in some of the sciences of observation, and then by being taught that, in such things as I have put in contrast, the one set of statements are, and the other are not, founded on careful, repeated, various inquiries by men of special training: that the one set are, and the other set are not, provable by every test to the satisfaction of all who will look on and who are too acute to be deceived: and, finally, that the truths are, and the fictions are not, parts of a system or whole body of sciences.

It is this,—the value and weight of a body of science, that uneducated people cannot understand. They may perhaps form some judgment whether the reasons advanced for any new view be in themselves good or bad, but they cannot estimate the kind or amount of evidence necessary to establish its truth; nor can they appreciate the objections to it. They know not the multitude of well-assured facts which make up the body of true science, and each of which must be a standing argument against the admission of any new view that is at variance with them. To persons versed in science this objection in its aggregate is well-nigh conclusive. We may, in short, safely assert, that whatever cannot bear the test of other scientific inquiry, whatever cannot be incorporated with other knowledge, is probably not true.

These, unfortunately, are tests which they who are uninstructed in science cannot apply for themselves, and as this class must always remain a large one, we may be sure that quackery and credulity, fraud and folly, will never cease while the world lasts. They are evils that can never be wholly removed, yet, assuredly, they may be mitigated.

If some portion of the natural sciences, and in particular those which treat of the laws of life, should become an established part of the higher general education—of the education, not of medical students only, but of every English gentleman, we may expect that society will, in course of time, become more conversant with the kind of knowledge required for distinguishing between true science and its counterfeit. We may reasonably look forward to this improvement, if the universities of Oxford and Cambridge go onwards in the course they have taken of late years, and do not rest until no one shall be called well educated who has not been trained in the knowledge of some natural science. I say, expressly, some natural science; for he that has studied even one, and has learned with what temper it must be pursued, with what labour it has been set up, with what evidence every new doctrine in it must be supported, and how that evidence must be able to bear a jealous cross-examination,—he, I say, that has learned this in any one natural science, will not lightly adopt spurious imitations of facts in any other." And this wider diffusion of a knowledge of natural science, how much it would add to social and national happiness! Very few men pass through life without repeated occasions for the exercise of scientific knowledge in questions of their own or other's health, or property, or social relations; and according as a man guides himself, or submits to guidance, wisely or unwisely, so is the result for his life, his health, or a great portion of his happiness.

But if we would see to what a height of importance the correct appreciation of science may rise, let us look at its bearings on matters of vital interest to the whole nation. We have an instance in what Sidney Herbert accomplished for the health of the British army. Till 1857 the mortality in the infantry serving at home was nearly double that of the civil population of the corresponding ages. Now it is actually less than in civil life. It is less than half of what it was. This represents the saving of the lives of British soldiers in time of peace. The contrast is even more striking in war, if we compare the mortality from sickness in the two wars in China—the one before, the other after the introduction of the new regulations; (a) and yet these were little more than well-known sanitary rules applied intelligently by an able and earnest minister.

Then if we turn from what has been done to what has not yet been done—to the report of the sanitary state of our army in India, to the facts which it discloses, and the sad reflections it suggests—we may see, in matters in which the highest political interests of the empire are concerned, how much might have been effected by men of station if they had been instructed in sanitary science or had guided themselves by the advice of others who were.

The recent address of the late President of our Bengal branch proves, if proofs be wanted, that a comprehensive knowledge of sanitary science does exist in India, and that those who possess it are not only willing but earnestly desirous to employ it in the public service.

But it is a general diffusion of such knowledge, or at least of respect for such knowledge, which is needed in a country like England, where the government is so much under the immediate influence of popular opinion that scarcely a step can be taken for which the general public is not prepared. An autocrat or his minister, if he be alive to the advances of science, may apply them at once to the exigencies of the state. But with us there can be little progress without a progress of the whole nation.

After all, it is not to be maintained that the study of natural science has the peculiar merit of making men in all respects wiser than the study of any physical science or of literature

(a) See "Army Sanitary Administration and its Reform." By Florence Nightingale.

might make them. I fear it must be admitted that the body Medical, instructed though all of us have been in natural science, has furnished its share of victims to the quackeries of religious profession, of politics, and of speculative finance. But this only strengthens the argument for the necessity of general education in natural science. Just as scientific men err when they engage in matters that they have not studied, so do the unscientific when they essay to judge in scientific questions without even knowledge enough to choose their guides.

And if some acquaintance with the natural sciences be so needful for men in general, what should be expected of us, the Medical Profession, who practise daily an art which has its only sound basis in these very sciences?

I am well aware of the difficulty of maintaining a high standard of scientific acquirements for all, without exception, that seek to enter our Profession; but surely this is what should be unceasingly aimed at. Without scientific knowledge the practice of medicine becomes mere empiricism; without scientific and general acquirements our Profession may strive in vain to uphold its social status and its influence.

Every ignorant man admitted into our Profession has an injurious influence on the estimation in which the entire body is held. His demerits have a tendency to lower us throughout the circle in which he is known. The want of confidence in him—the want of respect for him—begets distrust and disrespect for the Profession in general.

Contrast with this the influence on our social status of such men as Mead, Freind, and Arbuthnot, Thomas Young, Abercrombie, and Brodie, and of the many others whose acquirements or achievements in literature or science have raised them to eminence in the eyes of the world. Have they not elevated in some degree the whole body Medical; nay, are there not some of our own associates, now living, who have made us all their debtors by the lustre they have thus reflected on our common calling?

And so, likewise, must our scientific character be the measure of our social influence; and especially of our power of maintaining truth against error in questions that are daily exciting the attention of society, and of which we ought to be the accepted exponents.

When we consider that the sciences with which we are, or ought to be, conversant include subjects of which people in general are so ignorant, and in which, nevertheless, they take so lively and curious an interest, and which concern their well-being in almost all they do or suffer, surely it is in our power, as it certainly comes within our duty, to exercise a wide influence for good; surely it is our duty, and may be our privilege, to be in these matters the scientific "salt of the earth."

Our Profession has never been backward in such work. The learned and ingenious author of "Inquiries into Vulgar Errors" was a provincial Physician. It was a Physician also who, in the sixteenth century, strove single-handed with the arms of reason against the barbarous hosts of witchburners, and bore the glorious reproach of folly and presumption for putting the judgment of an insignificant Physician in opposition to the dicta and decrees of emperors and kings, legislators and judges, divines and philosophers of all ages and all countries. (b) And something has been done in our own time—and well done—for the direct refutation of error. The most fashionable of modern quackeries has been ably and thoroughly exposed by Dr. Simpson.

Few have the ability for works of this kind; but there are many of us who might do something to prevent the spread of mischievous errors. We might do much, if we were to aid in such instruction as would be some safeguard against them. We know what was effected by the late Professor Henslow: how in a few years he brought about a complete revolution, intellectual as well as moral, in a grossly ignorant village community: how even such people as those were instructed in some knowledge of science, and filled with a rational and elevating respect for it. And really the means employed were little more than might be in the power of any Medical practitioner who has his home in the country. It was not the depth of Professor Henslow's knowledge, but the simplicity with which he imparted it, that gave to it so powerful an influence. Our country members are quite capable of giving short, easy lectures, as Professor Henslow did, and many of them are capable of doing it well. I am not unaware of the objections that may be urged against Medical men lecturing, and of the fatally easy transition from lectures for the benefit of others, to lectures for the benefit of one's self; but I think such objections are not applicable to the case of a man instructing the poor of his own village, where he is officially charged with the care of them in sickness—in fact, though not in name, the true guardian of the poor,—and where some little instruction in such simple matters as the air they breathe and the food they eat may save his poor neighbours from suffering or even death, and himself from some portion of his ill-requited labours.

I am disposed even to think that our patients of the upper classes would have more confidence in orthodox Medicine, if we were to vouchsafe more frequently to gratify their natural curiosity as to the nature of their diseases and the processes of cure. I am well aware of the opinion of shrewd "practical men," that no doctors acquire a reputation for skill like those that hold their tongues; and, doubtless, silence is the most prudent for those that aim to be counted wise, though they be not so. But I think, nevertheless, that an explanation of the case is as much due from the Physician to his patient, as it is from the lawyer to his client; and that the confidence of the public in rational Medicine would be strengthened by such explanations. I do not mean that the doctor should put on an air of profundity, and look, like Lord Burleigh, more wise than it is possible for any man to be; nor that he should impress on his patient that

> —"these are diseases he must know the whole on,
> For he talks of the peritoneum and colon:"

but I mean that he should be willing to give a plain explanation in words as free as may be from technicalities.

We do injustice to Medicine, if we treat it as a mystery. It is a science, and entitled to rank as such; and we at least should be ready to show that its maxims are founded in truth and reason.

Let us hope that the educational changes now in progress will aid us in maintaining the dignity which is its due;—that when people are better instructed as to the sciences on which Medicine rests, when they themselves have examined into some part of its broad and firm foundations, they will have a juster appreciation of Medicine itself. Let us hope that Medicine will then receive the respect that is due to it, as the only one of the learned professions which holds its doctrines open to all inquiries, and never condescends to uphold itself on any dogma either of authority or tradition. Let us hope—as we have a right to hope—that Medicine will then be honoured as the Profession in which all discoveries and inventions are offered freely for the benefit of mankind, and in which their concealment for selfish purposes, or their appropriation by patent right, is held to be disgraceful.

And till then, if the world deny to our Profession the full honour which we feel and know is due to it, we may be well content with the ordinary round of duties, which are at once our lot and our privilege; we may be content with the internal satisfaction that our time is spent to the best of our ability in doing good to our fellow-men; that we do not rest supinely satisfied with what is imperfect in our science, but are ever earnestly and laboriously seeking for fresh light; and, when God vouchsafes it to our inquiries, we use it gladly in such works as he would have us do—in the relief of human sufferings, in healing the sick, in striving to make the lame walk and the blind see—in earnest endeavours to follow our Divine Exemplar, though it be with the limited powers and faltering steps of human infirmity.

At the close of the address, after some formal votes of thanks, the Report of Council was read.

REPORT OF COUNCIL, 1864.

Your Council has sincere pleasure in meeting the Members of the British Medical Association in Cambridge.

This is the first meeting the Association has held in this renowned seat of learning.

Your Council has reasons to expect that this, the 32nd Anniversary, will be as brilliant and as successful as any of its predecessors.

The Committee of Council elected at Bristol has held its quarterly meetings in Birmingham, each time under the presidency of Sir Charles Hastings.

The Members of the Committee desire very gratefully to acknowledge the great service rendered to the Association by Sir Charles during the past, as on former years.

Since the last Annual Meeting, two new branches have been recognised by the Committee of Council—viz., the Hull branch and the Bengal branch.

Your Council would very earnestly urge upon the Members of the Association the desirableness of forming new branches in those parts of the country in which the present branches are not easily accessible to the Members of the Association. This will be found to be the most effectual means of increasing the number of Members.

The total number of Members on the books on December 31, 1863, was 2156; since then there have been added 266. The total number on the books at this time is 2422.

(b) Bodin, near the conclusion of his "Refutation des Opinions de Jean Wier."

Since the last Annual Meeting, 27 Members have died. Among them occurs the name of Mr Peter Martin, of Reigate. Your Council cannot allow this event to pass without bearing its tribute of regard to the memory of so good a man. Mr. Martin had been a Member of the Association for very many years, and from the commencement was Honorary Secretary of the south-eastern branch of your Association. By his zeal, energy, and great devotion to the cause, he succeeded in making his branch one of the most efficient in the Association. In the manner in which he performed all he undertook, he was truly a model which the best of us might well aspire to imitate.

Your Council desires to bear grateful testimony to the able manner in which the Honorary Secretaries of the different branches have performed their duties during the past year. The coutinued success of the Association is mainly due to the unceasing labours of these gentlemen.

Your Council has much pleasure in acknowledging the continued ability with which the Journal has been conducted during the past year.

The following is the Financial Report for the year 1863, published in the Journal in accordance with Law XXIX., the accounts having been audited by Dr. Melson and Mr. Hadley, the Auditors appointed at the Annual Meeting :—

Financial Statement for 1863.

Your Committee regret that the Financial Statement on the present occasion is not so satisfactory as that which was made last year to the Association.

Instead of a balance of £221 1s. 10½d. being due from the Treasurer to the Association, the balance-sheet now submitted, and found correct by the Auditors, shows a balance of £8 3s. 0½d. due to the Treasurer.

This excess of expenditure over income is mainly due to the issue of an extra number of the Journal, involving a cost of £134 10s. The salaries, also, for the last year amount to a higher sum than for the previous year.

As these causes of increased expenditure are not likely to operate in the current year, your Committee have reason to believe that, at the end of 1864, the income will be found equal to the expenditure.

Receipts.

1863.	£	s.	d.
Balance from 1862	221	1	10½
Subscriptions	2118	9	0
Donation by Dr. Evans (Gloucester)	10	10	0
Advertisements	626	16	4
	2976	17	2½
Balance	8	3	0½
	£2985	0	3

Payments.

1863.	£	s.	d.
Journal Expenses :—			
Mr. Richards (Printing)	1784	9	0
Ditto (for Extra Number)	134	10	0
Mr. Richards (for Directing, &c.)	66	16	0
Mr. Honeyman (Sundries)	92	18	0
Mr. Davidson (Commission)	77	19	0
Mr. Orrin Smith (Engraver)	5	3	6
Editor of Journal	200	0	0
Dr. Henry	50	0	0
Contributions	301	8	0
Interest and Commission	3	16	4
Executive Expenses :—			
Dr. Williams and Clerk	117	0	0
Mr. Williams	52	10	0
Dr. Williams (Petty Cash)	49	9	8
Mr. Williams (ditto)	8	5	11
Bristol Reporter	11	14	6
Birmingham Stationer	10	9	6
Sundries: District Expenses, Post-office Orders, and Collecting	18	10	10
	£2985	0	3

In accordance with a resolution passed at Bristol, a Memorial, signed by the President and Secretary of the Association, was presented to the Council of the Royal College of Surgeons, requesting them to alter their Bye-laws, or take such other necessary steps as may enable those Fellows of the College residing in the provinces to vote by proxy papers in the election of Members of the Council. The following is a copy of the Memorial, with the Reply received by the Secretary :—

Memorial.

"*To the President, Vice-Presidents, and Members of Council of the Royal College of Surgeons of England.*

"The Memorial of the President and Members of the British Medical Association showeth—

"That the British Medical Association numbers more than two thousand Medical Practitioners in the metropolis and the provinces, including many Fellows and Members of the Royal College of Surgeons.

"That the mode of election of the Members of Council of the College of Surgeons has been brought under the notice of your memorialists.

"That your memorialists understand it to have been the intention of the Charters granted to the College, that the opportunity of voting in the election of Members of the Council of the College should be afforded equally to all its Fellows.

"That under the present bye-laws of the College, personal attendance on the day of election is required ; whereby many Fellows residing in the country, and prevented by their Professional duties from going to London, are prevented from recording their votes, although desirous and justly entitled to do so.

"That, in the Universities of Oxford and Cambridge, the voting at the election of Members of Parliament is conducted by means of voting papers, filled up by non-resident electors, and sent by post, proper provision being made for their authenticity.

"That your memorialists are of opinion that the adoption of some such method would remove the dissatisfaction at present felt by the Profession as to the mode of election of Councillors for the Royal College of Surgeons, and would entitle the result of the election to be considered a more correct expression of the wishes of the Fellows than it now is.

"Your memorialists, therefore, earnestly request that you will be pleased to take into consideration the propriety of altering the bye-laws of the Royal College of Surgeons of England in regard to the election of Members of Council, or, if necessary, of obtaining the legal powers for doing so, so that non-resident Fellows of the College may be enabled to vote by proxy at the annual election of Members of Council, in accordance with the principle which has already been advantageously adopted in the Universities of Oxford and Cambridge.

"(Signed) "J. A. Symonds, M.D., etc., President.
"T. Watkin Williams, M.R.C.S. Eng., General Sec."

Reply.

"Royal College of Surgeons of England, London, 24th day of November, 1863.

"Sir,—I have laid before the Council of this College your letter of the 23rd ultimo, addressed to the President of the College, together with its enclosure, a memorial from the President and Members of the British Medical Association, requesting the Council of the College to take into consideration the propriety of altering its bye-laws in regard to the election of Members of Council, or, if necessary, of obtaining the legal power of doing so, so that non resident Fellows of the College may be enabled to vote by proxy at the annual election of Members of Council.

"And I am desired, in reply to your communication, to transmit to you the enclosed copy of the 15th section of the Charter of the 7th of Victoria, from which it will be perceived that the voting at elections of Members of the Council by the Fellows in person is not regulated by bye-laws, but is a provision of the Charter by which the Fellowship of this College was instuted.

"I am also desired to inform you that, although every consideration has been given to the wishes of so large a number of the Profession as the Members of the Provincial Medical Association, it is not thought expedient, by applying for a new or supplementary Charter, to endeavour to effect the object to which their memorial relates.

"I am, Sir, your obedient servant,
"T. Watkin Williams, Esq." "Edm. Belfour, Secretary.
"Secretary to the British Medical Association."

Copy.

"*Section* 15. *Charter 7th Victoria.*

"That the Members of the Council of the College shall hereafter be elected by the Fellows of the said College, including the Members of the Council as such ; and such Fellows, whether Members of the Council or not, shall be allowed to vote in person only, and not by proxy ; and that any number of Fellows (not being less than fifteen) present at a meeting convened for the purpose of electing a Member or Members of Council, shall be competent to proceed to such election.

"Edmund Balfour, Secretary."

Your Council recommend that a memorial be again presented to the Council of the College on the same subject, feeling quite assured that so just a request must in time be conceded.

A memorial was also presented by your Association to the Secretary for War, and to the 1st Lord of the Admiralty, respecting the grievances of the Medical officers of the army and navy. Your Council regrets that no improvement has yet taken place : but your Council feels quite confident that the authorities at the Horse Guards and the Admiralty will, at no distant period, be induced to do justice to a class of officers not second even to the combatant officers in importance to the well-being and efficiency of the united service. The Medical officers have done their duty nobly, both by sea and land. Unquestionably the Profession has the remedy in its own hands, if the members thereof will but be faithful and true.

Under these circumstances it seems to the Council highly desirable that the Association should, by memorial and deputation, urge upon the Commander-in-Chief and the Secretary for War the necessity of making such concessions as will place the Medical branch of the service in a more satisfactory position.

Poor-law Medical Reform.—Mr. Griffin and his fellow-workers continue their praiseworthy efforts to improve the condition of the Poor-law Medical officers ; they have succeeded in obtaining the supply by the guardians of some of the more costly medicines.

Benevolent Fund.—This most valuable Institution continues its work of mercy ; and your Council beg very earnestly to recommend it to the support of the Members of the Association as well as to that of the public at large. A report will be read by the Treasurer of the Fund.

A report will be read from the Committee appointed at Bristol to inquire into the formation of a Medical Provident Fund.

The Hastings Prize Medal is awarded to Dr. Thudichum for an essay on "Urochrome." (The report of the Adjudicators was read.)

The Address in Medicine will be delivered by Dr. Ormerod.

The Address in Surgery will be delivered by Dr. Humphrey, F.R.S.

Dr. Styrap has given notice of the following alteration of Law XV.—viz., after the words "one guinea annually" shall be inserted, "provided that such sum be paid not later than June 30th, after which date each member shall, in default, pay £1 5s."

Mr. Watkin Williams has given notice to alter Law XV., by inserting "the 1st of December," instead of "25th of December."

After the reading of the Report a brisk debate took place on the Army Medical question, in which Dr. Stewart, Dr. Sibson, Dr. Richardson, Mr. Lord, and others took part. Dr. Wood defended the Director-General. The report was ultimately carried, with one or two corrections which we have made.

MEETING OF THURSDAY.

The members met at eleven o'clock in the Senate House.

The Hastings Prize.

The gold medal of the Association was presented to Dr. Thudichum by Sir Charles Hastings, at the suggestion of the President.

Papers and cases were then read, which we shall classify and report next week.

At four o'clock the members again met, when the following address was delivered.

THE ADDRESS IN MEDICINE.

By Edward L. Ormerod, M.D., F.R.C.P., Caius College, Cambridge,
Physician to the Sussex County Hospital.

A Review of the Present State of Cardiac Pathology.

I feel that there is a certain fitness in taking as the subject of the Medical Address on this occasion, the Present State of Cardiac Pathology, however imperfectly I may be able to follow out this idea under the circumstances.

It would be a pleaure to trace, under the full influence of Cambridge associations, the successive steps by which our knowledge of the physiology and pathology of the heart has risen to its present height; to recall the history of the growth of the first germs of truth, through doubt and contradiction, into acknowledged principles. For here was—nay, is—the home of Caius, who, with all his quaintness and garrulity, wise beyond his generation, made provision for the study of pathology on the only sure basis, the study of human anatomy. Here, in Caius' own College, the first fruits, as it might be, of the seed thus sown were reaped; and in the long list of names which can never die while knowledge lasts, we claim Harvey peculiarly as our own.

But I fear that such a narrative would scarcely satisfy the purpose with which we are here gathered together; and to bring the subject within the practical limits of an address, I must abbreviate, as Bacon has it, by cutting off rather than by contracting. For time would fail us to treat the subject thus at all adequately; and, curtailed of its due proportions, the history would lose all its interest in such a sketchy narrative. We shall find more than enough to occupy our time while keeping within the strictest limits of the proposed subject; and even so, it will be necessary to omit altogether the consideration of many points, that we may be more free to concentrate our attention on others which still present open questions, and are still, to many of us, the subjects of clinical investigation.

Diseases of the heart may be arranged, for our present purpose, most conveniently under three heads, according as the investing membrane; or the lining membrane, including the valves; or the muscular substance, be affected. With regard to each of these classes there is something to observe. I cannot expect universal, unqualified assent to all that I shall have occasion to say on this subject; and, indeed, I may seem on many points rather to invite controversy. But cardiac pathologists have much on which they can agree—much, indeed, on which I assume they do agree, and which I shall accordingly pass over without comment. Our common ground is so wide and so certain, that, if we differ with regard to some of the details, some novel propositions, at least here we may disagree very amicably.

I.—*Pericardial Affections.*

Pericarditis, according to this plan, might at first sight seem to be a part of the subject to be summarily passed over; for there are really few diseases about whose signs and symptoms we are more perfectly agreed, or with whose clinical history we are more familiar. Yet there are questions as to the ultimate consequences of pericarditis still unsolved, and inviting further research; and even in its familiar clinical history there is something more to be made out.

The pericarditis which we see in daily practice, and which is generally referred to by writers on the subject, is almost exclusively the result of rheumatic fever. Our information concerning it is very explicit. We know that it is to be looked for as an early complication in cases of rheumatic fever of intense severity; but that in ordinary cases it occurs later, about the tenth day on an average; and that the frequency of its occurrence bears no close relation to the severity of the rheumatic affection; that, once begun, the pathognomic to-and-fro sound continues, for the most part, without intermission until the two opposed surfaces are agglutinated together; and that the specific symptoms are generally severe enough to call our attention to the local disease, even though we may not be particularly looking out for its occurrence.

So familiar are all these details, that it is with a feeling of shame we stumble, in dissection, on pericarditis which has been overlooked during life; and we wonder that a disease which usually quite obtrudes itself on our observation, should have so entirely escaped us. But the fact is, that these latent cases of pericarditis constitute a class by themselves. The disease is a secondary complication of Bright's disease of the kidneys, a contingency of dying rather than a cause of death; and, as such, it has no overt symptoms any more than the other inflammations of serous membranes have which occur under similar circumstances.

The cause, however, of the frequent coincidence of albuminuria and pericarditis is not clear; and we are merely expressing, not explaining, the fact, when we say that certain morbid conditions of the blood are singularly prone to induce inflammation of the pericardium. Such a tendency to involve the investigating and also the lining membrane of the heart is found in the exanthemata of childhood, particularly in scarlatina. But here we have to do, not with an indication of coming death, but with a disease which is to produce its fruits in after years.

Tubercular pericarditis belongs to another category. In comparison with the other serous membranes, the pericardium suffers less frequently from tubercle, and the symptoms are less severe; but tubercular pericarditis has characters of its own, which may claim a passing remark while discussing the less usual forms of pericardial inflammation. Slow, for the most part painless, with long persistence of the auscultatory signs, and having always, as far as I have seen, a fatal issue, it stands in the strongest contrast to the rheumatic form of the disease.

When cases of pericarditis die, the fatal issue turns generally less on the condition of the pericardium than on the contingent inflammation of the lungs and pleuræ; but most cases of pericarditis (still speaking in reference to the rheumatic, the familiar form of the disease) get well; the inflammation subsides, the opposite surfaces are united together into one membrane, and the fibro-cellular tissue outside the pericardium becomes loosened, to allow of the movement which should have taken place on the two free surfaces. We find adhesions of all degrees of firmness and over whatever extent of surface. There may be a white patch only of thickened membrane, or a flock floating loose at one end, or a band connecting the two opposite surfaces, or anything, indeed, up to universal close adhesion of the pericardium. And the connecting medium may be filmy, or fibrous, or earthy, resembling bone, the extent of the adhesions and the density of the connecting medium depending respectively on the extent and duration of the original inflammation; if, at least, the same rule holds good for the pericardium as for the pleura.

These are anatomical changes. What is their pathological value? Do they represent an abiding condition, which has persisted for years, since the subsidence of the inflammation in which they originated? And if so, what is the effect of this obliteration of the pericardium on the action of the heart? Or do pericardial adhesions naturally tend to obsolescence and absorption?

First, with regard to the anatomical changes. My own experience inclines me strongly to believe that adhesion of the pericardium is, in the majority of cases, the natural termination of pericarditis. When general adhesion has once been effected, and the two opposing surfaces are firmly agglutinated, I believe that these are very rarely separated by subsequent inflammatory exudation, or set free by absorption of the connecting fibro-cellular tissue. Cases have, indeed, been recorded in which, after general pericarditis had pursued its usual course, the pericardium has been found free from adhesion or any trace of the previous inflammation. But these seem to be exceptional cases, and they scarcely justify our claiming for the pericardium a power of repair greater than that of the other serous membranes; for I find, on analysis of a large number of cases, that observations of adherent pericardium after death bear the same ratio to observations of pericarditis during life as any other anatomical lesion does to its observed symptoms. As far as I have seen directly, or can infer indirectly, the pericardium becomes adherent after inflammation, and once adherent nearly always remains adherent.

Next, as to the effect of general adhesion of the pericardium on the action of the heart. The mere fact that there are no certain symptoms by which the existence of general adhesion of the pericardium can be ascertained during life is of itself almost a conclusive argument against attaching any pathological importance to this condition. Where there is no accompanying valvular disease, no thickening of the investments of the heart by earthy or so-called cartilaginous deposit, the heart does not become enlarged in consequence of general adhesion of the pericardium. The requisite freedom of movement is gained by loosening of the fibro-cellular tissue outside the pericardium; and tested by its effects on the heart itself, the alternative of moving on a polished serous surface or in a loose bed of cellular tissue seems indifferent. But

where the connecting medium is an unyielding tissue, earthy or fibrous, it constitutes a most serious impediment to the heart's action, and the effect is most disastrous.

Our accurate knowledge of diseases of the heart is of such recent growth, that many of us may probably have watched the first gradual development of the truths now universally received and embodied in the systems of cardiac pathology of the present day; and many of the recorded cases of disease of the heart, the cases which have become classical, may have been personally under the observation of some of those whom I am now addressing. None would doubt the correctness of the characters in which, under our own eyes, as it were, pericarditis has been drawn; yet I doubt if any one would now describe pericarditis in the same terms as we used to know. True, there are still cases of pericarditis, happily rare, where human suffering might seem to find its extremest limits compatible with life; and chorea, in connection with cardiac inflammation, is as dreadful as ever. But, whatever the cause may be, pericarditis, as we see it now, is shorn of more than half its distresses and dangers. It is of less frequent occurrence, and the contingent pulmonary affection is less severe; and I am free to express my belief that the cause of this difference is to be found in the general substitution of an alkaline for a mercurial and antiphlogistic plan of treatment in cases of acute rheumatism.

II.—*Endocardial Affections.*

Not many years ago there were few subjects more perplexed than the interpretation of valvular murmurs. While the auscultation of the lungs was, with perhaps the single exception of the meaning of long expiration, as well understood as it is now, the auscultation of the heart seemed a mass of confusion. But now all this is changed. Not that the practice of auscultation of the heart is absolutely perfect, or that pathologists are unanimous in their interpretation of all the physical signs. But at least we are agreed as to the principles. And not only are the points on which we are not all unanimous very few; but these are also, for the most part, unimportant, or in their nature incapable of satisfactory demonstration. And now, instead of regretting our shortcomings in the physical diagnosis of valvular disease, we rather complain that our exceeding accuracy has so little practical application.

The received canons of cardiac auscultation assume that the first sound coincides, in point of time, with the contraction of the ventricles; the second with the closure of the sigmoid valves and the recoil of the blood. There is a very general agreement as to the cause of the second sound; but no theory of the first sound has met with universal acceptance.

I almost fear to venture on a subject round which there still clings a little of the polemic spirit which formerly characterised all discussions relative to the auscultation of the heart; but, without proposing any new theory, I may be allowed to offer some remarks on the general bearings of the question, on the separate elements of this somewhat complex problem. This is a case in which the very simplicity of an explanation is an argument against its soundness; for surely no theory can be correct which refers the first sound of the heart to one agency alone, disregarding the others which, silently or not, concur in the systole. And the sounds of muscular contraction, of valvular and muscular tension, and of the motion of the blood, must all severally be accounted for before we can accept any theory of the first sound as altogether perfect and satisfactory.

The motion of the blood in the heart probably produces no appreciable sound in the healthy state. In certain cases of anæmia, indeed, we recognise murmurs due to this cause in the heart itself, as well as in the large vessels; but such murmurs are very different from the physiological sound of the systole. In some cases of acute rheumatism, however, and in certain other cases, a murmur of another kind is occasionally audible. It is soft, but not blowing, somewhat resembling the so-called muscular sound. It continues equally through all the period of the first sound, being perceptible all over the cardiac region, but not beyond. It does not follow the rules of any specific valvular murmur, nor does it change into one; indeed, valvular murmurs are less apt to occur in cases where this murmur is found than in others. It does not occur as an early sign in rheumatism, and it passes gradually away. I believe this murmur, on these grounds, to be an exaggeration of the normal blood-element of the first sound; but, even assuming the correctness of this description and interpretation, still the statement remains substantially true that in a condition of health the sound of the motion of the blood in the heart is inappreciable.

On physiological grounds alone, muscular action would claim consideration in any theory of the first sound; but pathology seems to furnish experimental evidence, which proves beyond a doubt that a certain portion of the first sound of the heart is produced by muscular contraction. Thus, where the hypertrophied ventricles constitute a large mass of muscle, the first sound is altered; conformably to this change in the heart's structure it becomes dull and heavy. Conversely, where dilatation predominates over hypertrophy, and the muscular element is deficient, the first sound is sharp and ringing. Again, where the muscular force fails, as in some cases of fever or of fatty degeneration of the heart, the first sound is almost inaudible.

The other element of the first sound of the heart is the result of muscular and valvular tension, that is to say, of the recoil on the auriculo-ventricular valves. This is found in the greatest perfection where the contraction is vigorous, but the walls of the ventricles are not so much hypertrophied as to deaden the sound. Where the dilatation is excessive, the first sound is represented almost entirely by this recoil, by the ringing click of the closure of the large auriculo-ventricular valves; but where the muscular force fails, the recoil fails also.

It is difficult, even in theory, to separate these elements thus mutually dependent on each other, and in practice they are inseparable. It is the valvular and the muscular tension, indeed, which mainly give the time and character of the first sound in the physiological state; and it is in them that the effects of any valvular imperfection are most perceptible. But these are only a part of the normal first sound. The practised ear, apart from all theoretical considerations, seems to require that something else should concur with, and bear a certain proportion to these elements; and the deviations from the normal first sound, which hypertrophy, or softening, or dilatation of the heart involve, are only explicable on the assumption that this something else is the sound of muscular contraction.

A received principle of interpretation of valvular murmurs is, that murmurs referable to certain valves are heard loudest at certain points corresponding respectively to those valves. Murmurs, for instance, heard loudest at or near the apex of the heart are referable to the auriculo-ventricular valves, and commonly to the mitral; murmurs loudest at the base, to the sigmoid valves, and commonly to the aortic. So far, we are agreed. But a further analysis raises questions on which there is room for great difference of opinion.

Thus, to take a common instance: a murmur audible at or near the apex only, accompanying the first sound, rising in intensity with the continuance of the first sound, and ending suddenly with a snap at its closure, admits of more than one interpretation. Its seat is unquestioned—the mitral or the tricuspid orifice. But is it due to obstruction to the flow of blood from the auricle to the ventricle during the auricular systole, or to imperfection of the auriculo-ventricular valve, allowing regurgitation during the contraction of the ventricle? To the first explanation we may object that a direct mitral murmur, such as is generally admitted to be of this nature, is quite unlike the murmur under consideration. It is soft, and closely resembles the murmur of sigmoid regurgitation. Such a murmur is very rare, while the murmur under consideration is not at all uncommon. It may be questioned, too, whether the contraction of the auricle, slight and momentary as experimentalists report it to be, is capable of producing so loud a sound. To the second explanation, I do not see that there is any insuperable objection. It assumes that the coaptation of all the portions of the valves is not simultaneous; but that when, at a certain point of contraction, the valve is closed, the regurgitant stream is cut off, and the cessation of the murmur coincides with the sudden jerk of valvular tension. In favour of this view, it may further be urged that this peculiar murmur is not always a sign of organic disease. It is often a murmur of palpitation, where such disturbance of the rhythm of the heart's contraction is singularly liable to occur.

I have selected this as an illustration of the points in the interpretation of valvular murmurs, which still remain open and doubtful questions. They are doubtful, not from any want of agreement as to the principles, but from the practical difficulty of applying them; and though, in this instance, I have adopted the interpretation which seems to be most in accordance with observed facts, I feel that it is scarcely possible to determine absolutely which is the correct one, whether this murmur is direct or regurgitant.

The subject of tricuspid murmurs and tricuspid regurgita-

tion is another disputed point, incapable of solution by direct experiment. Experiments have, indeed, been tried bearing on this point, by distending the ventricles with water; but the play of the valves of a dead heart is so very different from what must take place during the contraction of a living heart, where each columna carnea has its special duty to perform, that the physiological inferences from such experiments are worth very little. After frequently repeating the experiment, however, I must say that I never felt satisfied that the retaining power of the tricuspid valve was really less than that of the mitral, nor have I seen anything to countenance the theory of its so-called safety-valve function.

On the question of tricuspid regurgitation, indeed, which these experiments are meant to elucidate, observers are probably not so much at variance as they might seem to be. Derangement of the circulation on the left side of the heart is followed in due course by derangement on the right side; and as the right ventricle cannot clear itself fast enough through the obstructed lungs, the effects are further transmitted backwards into the veins of the systemic circulation. But a moment's consideration will show that the obstruction is not necessarily transmitted specifically by tricuspid regurgitation. The obstruction in the veins is the same, whether the blood is prevented from entering the ventricle, or whether it is regurgitated through the tricuspid valve after it has gained admission into the ventricle. Sometimes we seem to find evidence of tricuspid regurgitation in the condition of the jugular veins during life; but these cases are rare, and it is only on theoretical grounds that the frequency of tricuspid regurgitation can be maintained. Notwithstanding the high authority which is quoted in favour of the safety-valve function of the tricuspid valve, that is to say, the occurrence of tricuspid regurgitation from very slight causes in the healthy state, its advantages appear to be very problematical. It would be only, at best, transferring to the brain and other organs the mechanical pressure which would be sustained equally well by the lungs, and certainly very much better by the mechanical arrangements of the heart itself.

If these views be correct, any long inquiry into the grounds of the commonly received opinion, that tricuspid regurgitation is not usually accompanied by valvular murmur, would be superfluous; and the habitual absence of any murmur in cases of obstruction of the right side of the heart, so far from proving that tricuspid regurgitation is unaccompanied by murmur, must, in such case, be added to the other arguments intended to disprove the opinion of the occurrence of actual tricuspid regurgitation. There do not seem, indeed, to be any sufficient grounds for exempting the tricuspid from the same physical laws as the mitral valve. And certainly tricuspid murmurs are occasionally distinctly to be recognised. Only, they are rarely audible for two reasons: first, because when they do occur they are singularly liable to be drowned in the sounds of pulmonary obstruction with which they habitually coincide; and, secondly, because, occurring as transmitted tricuspid obstruction does towards the end of heart-disease, murmurs on this side of the heart would be even more likely than mitral murmurs to become inaudible through feebleness of the current of blood.

One seems to breathe more freely on passing from the doubts and difficulties of affections of the auriculo-ventricular valves to the comparative certainty of the interpretation of sigmoid murmurs. The only point, indeed, which need delay us here is the differential diagnosis of pulmonary and aortic murmurs. The diagnosis itself is easy enough with a little practice. A murmur loudest over the sigmoid valves, audible in the second left intercostal space for two or three inches, but inaudible along the aorta or in the carotids, has its seat in the pulmonary artery; due care being taken not to be misled by a systolic pericardial friction-sound confined to the base of the heart, or by a murmur in the innominatæ veins. Nor should there be much difficulty about the practical application of this knowledge when the opportunity arises. Thus, while murmurs in the pulmonary artery are common enough, disease of the pulmonary valves is so very rare that few Physicians probably have met with more than one or two cases in the course of their experience. A murmur in the pulmonary artery is, therefore, almost certainly functional. If we can do no more, then, in a doubtful case, where our opportunities of observation are limited, than assure ourselves of the presence of a pulmonary murmur, we have grounds for hoping that the coincident aortic murmur may be functional likewise. But this analysis of a murmur at the base of the heart may lead to more positive conclusions under favourable circumstances; for if, by patient observation, a murmur at the base of the heart be found one day in the pulmonary artery only, and another in the aorta only, though the murmur may persist for weeks, still expressed, on less attentive examination, as a murmur at the base, the conclusion that the affection of the sigmoid valves is altogether functional is quite irrefragable. On such analysis may turn the power of distinguishing between a passing ailment and disorganisation of the heart—the alternative of life or death.

I have spoken of received canons of cardiac auscultation, and, passing over many portions of the subject as settled and certain, have dwelt rather, as our time allowed, on those portions which demand further inquiry. But the present condition of our knowledge of cardiac pathology would not be truly represented, unless some practical considerations, which detract very largely from our seeming power of accuracy of diagnosis, were put in the strongest light; for, settled and certain as these canons may be, accurately as they may often apply, yet it is no exaggeration to say that there is not a single murmur, endocardial or pericardial, which may not, under certain conditions, be produced by some other cause than that to which we habitually refer it.

But what does this amount to, admitting it to the fullest extent? That the whole practice of cardiac ascultation is a mass of confusion and error, resting on signs of equivocal interpretation? Nothing of the kind. Only we must not attempt to deduce from these auscultatory signs more or less than they fairly convey. We cannot attach an unequivocal meaning to each sound, regardless of circumstances; but we must examine the auscultatory evidence from other points of view, eliminating, by the aid of these circumstances, the various surd answers till we arrive at the one which alone is compatible with the results obtained in other ways. The precision with which a simple, slight case of heart-disease may be made out, is often quite wonderful; but the slightness and the simplicity are generally necessary to this precision. It is the want of simplicity that baffles us in many cases of aneurism, where, with all our care, we cannot eliminate all the possible erroneous answers. Even in the case of a single well-marked sign there may be a twofold interpretation. Permanent patency of the aortic valves and dilatation of the left auricle, for instance, are not the only solutions of which a diastolic, purring tremor at the base, and a systolic, purring tremor at the apex of the heart, are respectively capable. And, not to lengthen this list of doubts and difficulties needlessly, while the most intensely loud murmurs may be independent of organic disease, the most extreme disorganisation of the valves is frequently declared by no murmur at all at the seat of disease. Yet there is no confusion or perplexity, if only we do not strain the auscultatory evidence beyond its legitimate sphere; if we learn not only what it can, but what it cannot tell us.

We owe our exact understanding of the various signs of valvular disease to the zealous pursuit of morbid anatomy in combination with close clinical observation. Only a small part, however, of the labours of the morbid anatomist are thus directly available for practice. The exact shape of the mass which obstructs the current, or of the fissure which allows the blood to regurgitate, the structure of the growth, or the nature of the walls of the chink—these have little or no bearing on the auscultatory signs, however great their pathological value may be in other ways.

The anatomical changes with which we are most familiar are simple thickening and fibrinous deposit, both which we have learned to associate with acute rheumatism. The connection between these two morbid appearances—between the recent formation which we doubt whether it be due to exudation or accretion,—and the thickening to which this leads in the course of years, may readily be traced in a series of cases. A careful study of such a series, however, leaves no doubt that the changes induced by rheumatism on the valves of the heart do not always tend to contraction and disorganisation of these valves, but, in what proportion of cases no one can say, are capable of the most perfect repair.

It is in rheumatism, for the most part, that the changes in the valves which we are now considering originate; but the specific influence of rheumatism probably does not extend beyond the earliest stages. There is nothing, under ordinary circumstances, in the after-progress of the original warty growth but what we may see in any other part as a result of simple inflammation; and the modifications which do occur are not due so much to general as to local influence, such as accretion from the blood and mutual attrition of the valves.

Under ordinary circumstances the products of inflammation undergo the same changes on the valves as elsewhere; the adventitious matter contracts, coalesces with the subjacent membrane, and finally is removed by absorption. I believe this to be the rule, though in a certain number of cases this perfect repair fails, and inflammation results in permanent injury by induration of the valve.

But where the constitution of the blood is so altered as to favour accretion from the passing stream, valvular disease assumes certain specific anatomical characters. The coagulable lymph deposited under these circumstances has a singular want of cohesion, with a tendency to soften and degenerate into earthy or fatty matter; and so the effects of mutual attrition of the thickened valves become very manifest. As the seat of the disease may determine, the long, leathery tails which hang in the stream, or the round, globular vegetations which nestle among the columnæ carnæ, or in the tips of the auricles, put on various shapes, and undergo further changes peculiar to themselves. These have all names of their own, unnecessary perhaps, for they are only severally illustrations of processes which may be observed in other parts of the body; but a form of disease constantly occurring in any organ has a special interest to those who make the diseases of that organ their study, and with this interest a special nomenclature commonly associates itself.

This change of form and disintegration of the growths on the valves of the heart, has a further connexion with disease in other organs, resulting apparently from the impaction in their vessels of fragments separated from the growths. These results divide themselves naturally into two classes, according as they arise from the impaction of smaller or larger fragments. With regard to the effects of the smaller *detritus*:—For a long time anatomists have been familiar with large, yellow masses occurring in the kidneys, spleen, liver, and more rarely in the lungs. In the first stage they appear as hard yellow nodules, taking their form, angular or round, from the structural arrangement of the organ in which they are seated; and circumscribed by a line of deep red injection, contrasting strongly with their own bright yellow colour. As time goes on, this line fades; the mass turns to a pale dull yellow, and shrinks away from the surrounding healthy tissue; and we cease to recognise its structural identity with the organ in which it is embedded. Finally it is replaced by earthy matter, or suppurates, or is quietly absorbed, leaving a deep scar as an indication of its former existence. These masses are now generally supposed to be due to capillary phlebitis induced by the impaction in the capillaries of fragments detached from the growths on the valves. And in favour of this view I call to mind a case where, in connexion with extreme disease of the pulmonary orifice, they were found scattered through the lungs. However, they occur sometimes independently of valvular disease.

It seems strange that our experience of the effects of the impaction of larger fragments detached from the valves of the heart should refer almost exclusively to obstruction of the vessels at the base of the brain. This, however, is mainly due to attention having been called to the part by the cerebral symptoms during life, and a change being thus looked for and detected which might otherwise have readily eluded observation. In this recent addition to our knowledge, we seem to have found the explanation of a form of hemiplegia differing from that dependent on cerebral apoplexy, no less in its requirements of treatment than in its pathology.

There remains to be noticed a form of obstruction peculiar to the right side of the heart, or nearly so, which is of even more vital importance than occlusion of the arteries at the base of the brain. The conditions predisposing to such an occurrence are, inflammation of some portion of the venous system; and, as I think, a fixed position on the back; at least, such are the circumstances under which this obstruction commonly occurs. Cases of sudden death from this cause are frequent enough to make us familiar with the very characteristic symptoms. One sudden, violent attack of dyspnœa, and all is over in a few minutes. Almost before we knew there was anything to apprehend, a mere choking, as it were, grew into a struggle for life. Not always a hopeless struggle; for by the side of the clot—the embolus, as it is called—which by shifting its position, has caused sudden death, may sometimes be seen the shrunken remains of another clot which has been launched at an earlier period. Adherent to the walls of the pulmonary artery, or caught in the threads of the tricuspid valve, we may find the explanation of another similar attack, from which some fortuitous mechanical disposition alone averted a fatal issue. Regarded from this point of view, a sudden attack of dyspnœa is always an alarming occurrence in a bed-ridden patient, even though the present distress and danger may have passed quite away; for dissection, which shows that the danger may be got over, shows at the same time that it is very likely to recur.

III.—*Affections of the Muscular Substance of the Heart.*

Whatever importance we may attach to the exact diagnosis of the lesions of each valve, a little observation shows that no particular series of symptoms are connected severally with each of these. It is not the specific valvular lesion which determines the course of the disease, and gives it its character, so much as the power of the various organs and of the constitution to counteract the injurious effects of the mechanical imperfection of the valve. Sooner or later, the organs and the constitution give way. The organs cannot act properly under the constant oppression of venous congestion. The blood, which leaves its watery part at the places where the circulation is most impeded, to take it up again where and how it best may, is unfitted for its various offices. And so the system breaks down at all points, the secretions are interrupted, nutrition fails, the dropsical tissues slough under pressure, and life fails at last under the protracted distress. Here are symptoms which a mechanical remedy seems ill adapted to contend with; and, indeed, these symptoms are themselves mainly due to the action of the only remedy which nature can apply to the mechanical disease. Yet, so long as the other organs remain sound, and able to bear the additional load, it is surprising to what an extent nature's simple mechanical expedient of strengthening the heart to meet its difficulties does succeed. Our remedial measures are, for the most part, limited to encouraging this or that secretion, and to tempering the physical condition of the blood, as best we can; but the measure of our success or failure, the index hand which points on the declining scale the progress of the disease, is the condition of the muscular structure of the heart.

Two words familiar by constant use, "hypertrophy" and "dilatation," denote respectively whether the heart is rising to meet its burden by increased growth and strength, or whether it is failing under the pressure. Both of these conditions are, to a certain extent, combined in almost all cases, certainly in all advanced cases, of valvular disease; but the one or the other predominates, according to the mode in which the heart feels the obstruction. So long as the different organs will bear the uneven pressure of an hypertrophied heart throbbing to drive the blood through a strictured orifice, life may continue; or so long as the heart can enlarge to receive the blood which would otherwise oppress the venous system at each moment of the least disturbance of the circulation, the end may be deferred. And it is wonderful to what an extent the organs of a child or of a healthy adult will bear this oppression. It is often the heart which is the first to break down; and, when the limits of nature's remedies have been reached, the first sign that the fatal downward progress has commenced is often found in the irregular rhythm of the oppressed and overburdened heart.

These processes of hypertrophy and dilatation have been correctly designated as reparatory; for though, after a certain period, they become diseases in themselves, still, but for their timely aid, life would have failed long before this period. We may do something to prevent or delay these conditions ensuing; but, once established, we must regard them as necessities, were it even in our power, which it is not, to remove them. But the muscular tissue of the heart has certain diseases of its own, not absolutely peculiar to it, but affecting it with great frequency; and, in connexion with its functions, having a peculiar importance. I allude more particularly to fibrous and fatty degeneration, of which our recent more perfect knowledge is to be counted among the most valuable contributions of the microscope to pathological science.

Fibrous degeneration occurs chiefly, but not exclusively, in connexion with mixed hypertrophy and dilatation, affecting by preference the thinner portions of the heart's walls. The muscular tissue, under these circumstances, becomes hard and elastic, the cavity retains its shape when cut open, the muscle creaks under the knife, and the cut surface looks paler than natural, but of a white rather than a yellow hue. And under the microscope the explanation of these changes appears in the substitution or the addition of an unusually large amount of fibrous or fibro-cellular tissue.

Now the word "degeneration" does not fairly apply to all the conditions under which this change is found to occur.

The youth and strength of the patients in whom it is most commonly found, and its habitual connexion with hypertrophy, would make one rather refer it to active nutrition. In accordance with this view, in such cases the struggle for life, the resistance to death, is generally strong, and the suffering severe and protracted.

Its occasional connexion with the results of previous inflammation, ensuing in obliteration of the pericardial cavity by thick, unyielding adhesions, is an equivocal instance, not to be claimed absolutely as either an active or a passive pathological process. Under all other circumstances it generally contrasts strongly with fatty degeneration, and must be clearly distinguished from the simple atrophy of enfeebled muscle. For the design of this fibrous transformation is palpable: it is the substitution of a mechanical for a vital resistance to dilatation. Such a change I have found in the neck of the uterus ruptured during labour. Here, under the pressure of the uterine muscular tissue, the adventitious fibrous tissue, which could not dilate, was torn across. The pressure of the heart's contraction is probably not so great as, and its function is widely different from, that of the pregnant uterus; so the results are not as terrible. Hearts which have undergone fibrous termination are not liable to rupture. But, while this change resists dilatation most efficiently, at the same time it limits the contraction of the chamber of the heart thus involved, and reduces it so far to the condition of a mere containing vessel.

Fatty degeneration, I have said, stands in the strongest contrast to the change last described. It is more frequent and more familiarly known. It comes more prominently under notice, not merely as a supplementary observation after death, but as the cause of symptoms which we watch during life; and it is not unfrequently the apparent cause of sudden death. It has, besides, a more lively present interest, from the fact that its pathology has been—indeed, I may say, is still being—worked out in our own days; for its very frequency and familiarity suggest questions as to its pathology and clinical history which have been as yet imperfectly resolved. And if, in this brief summary of heart-disease, so large a space has been allotted to this single subject, I feel that this is in but due proportion to the amount of study still devoted to the elucidation of the pathology of fatty degeneration.

Fatty degeneration of the heart, in the sense in which this term is strictly employed, is essentially atrophy of the muscular structure of this organ, and quite distinct from fatty accumulation in and about the heart; but it differs from ordinary atrophy most characteristically, in the fact that the muscular tissue is not removed, as usually happens under such circumstances, but is replaced by fatty matter, fibre for fibre. It is easy to follow, step by step, this gradual disintegration of the higher tissue, and its replacement by a more degraded animal substance. The little yellow, zigzag specks which just catch the eye; the soft, tawny, muscular walls which a practised hand feels to be diseased, are at once resolved, under the microscope, into infallible signs of one of the most subtle and dangerous diseases of the human frame. We may trace, in different portions of the same heart, all the successive stages, from the first change in the appearance of the muscular fibre to its complete disorganisation. First, the transverse striæ, always less distinct in the heart than in striped voluntary muscle, lose something of their clearness, and the fibres often become short and brittle. Next, the transverse striæ are replaced by longitudinal dotted lines; and, lastly, all traces of organic arrangement are lost; nothing remains but the sarcolemma, irregularly filled with an amorphous fatty matter, or with distinct oil-globules, or shrunk after the discharge of the free oil-globules which crowd the field of the microscope.

So far the microscope, and so far with certainty. But, as to the pathology of the affection, as to the intimate nature of the process by which muscular fibre is replaced by oil-globules, and the exact period when this change commences, there is no such certainty.

It has been said that the decomposition of muscular tissue may be so regulated that the ultimate result shall be fatty matter; and it has been suggested that the transformation which takes place in the living body is the same as that which we can induce artificially by these means: in fact, that fatty degeneration is a physical, and not a physiological or pathological process.

The experiments conducted for me by Mr. J. Peel, with all conceivable exactness, have not justified this view. I subjoin an account of these experiments in detail; for the present I will merely recapitulate the results at which we have arrived, and which seem incompatible with any purely chemical theory of fatty degeneration.

We found the excess of fatty matter in a fatty heart to consist of oleine, not of margarine, which is the normal fatty constituent of the human heart. Adipocere was proved to be by no means chemically identical with animal substance which had undergone fatty degeneration. It was merely a soap of lime combined with the fatty acids pre-existing in the tissue. There was no new fatty acid made—as is the case in fatty degeneration—during the change into adipocere, no substitution of oleates for margarates; and, indeed, it seemed that we could prevent the formation of adipocere altogether by carefully excluding lime during the process. We submitted weighed portions of muscle, in which the quantity of fatty matter had been previously determined, to more than one process for making adipocere, and carefully analysed the results. In no instance was the fatty matter found to have been increased during the operation. On these grounds I cannot doubt that adipocerous transformation is a saponification, not a degeneration; and that fatty degeneration of the heart is a pathological result not attainable by any of these chemical processes.

Commencing decomposition simulates very closely that change in the heart's muscular structure which is known as the first or granular stage of fatty degeneration. I have been deceived by it myself; and such a mistake is all the more likely to occur, because granular degeneration, like decomposition, may involve the heart uniformly over a very wide extent; much more widely than distinct fatty degeneration ever does, probably because the destruction of the muscular fibres is less complete. This same uniform appearance of granular degeneration is also highly characteristic of the effects of maceration in dilute spirit, on the muscular structure of the heart; but it is not really fatty degeneration. Ether only clears these fibres of some of the granular dottings, it does not entirely remove this appearance, still less does it empty the sarcolemma. Further, chemical analysis of a portion of heart which has undergone this granular degeneration during life shows but a slight increase in the normal quantity of fatty matter. This change is the first step, both in the chemical transformation into adipocere, and in the pathological replacement of the muscular fibre by oily matter; but it is not itself fatty degeneration. These dots are not oil-globules, but the signs either of an integral change, on which fatty degeneration is subsequently engrafted; or, if so it should be, of commencing decomposition.

The general conditions with which fatty degeneration of the heart is found to coincide are, for the most part, those with which we connect muscular atrophy and fatty degeneration of other organs. Such are phthisis, hæmorrhage, debility, from long mental or bodily suffering, and the effects of indolence or intemperance. The cases, however, with which we are here chiefly concerned are those where the heart does not so much share in the general decay, as the decay begins at the heart, where the wheel is broken at the very cistern, as it were. Sometimes, while all the functions are regularly performed, the heart alone of all the organs is undergoing this fatal change; and the first intimation that anything has been going wrong is the sudden death of a seemingly healthy man. A gradually accumulating experience has, indeed, given us some general grounds for conjecturing the existence of fatty degeneration of the heart during life; and sudden death from this cause rarely comes altogether without warning. Still the fact remains, that in this decay the heart will often outstrip all the other organs, and will fail from a form of disease against which one would have thought that its own functions, its own constant activity, were the best preservatives.

We are not in a position to say precisely what is the cause of this peculiar change originating in the heart's structure. We know, indeed, that the heart is liable to undergo fatty degeneration in consequence of inflammation extending inwards from the pericardium; but such an occurrence is rare. Indeed, the habitual absence of all traces of inflammation of the lining membrane of the heart, in cases of fatty degeneration—recollecting that this disease, as a rule, extends from within outwards,—negatives the idea of inflammation, in the common acceptation of the word, being its habitual cause.

Yet we cannot entirely dismiss the idea of inflammation as a cause of fatty degeneration of the heart, though the process which leads to this result has little in common with that which we familiarly know as tending to the exudation of coagulable lymph or pus. The aneurismal pouches which we find in the ventricles seem to originate in such a process. We

see only the ultimate results over the prominent part of the sac; but at the edges, where it adjoins the healthy muscular tissue, we gain some insight into the nature of the process by which these results are reached. And here the zone of intense congestion points to excessive vascular action, to give it no more exact name, as the cause of this change of structure. One such case occurred in a girl, fifteen years of age, who had been ill only one month, and had suffered from heart symptoms during only a fortnight. And here the congestion was most intense at the line of union of the diseased and healthy tissues. Whatever share, however, this excessive vascular action may have in the process, the real analogies of acute fatty degeneration of the heart are to be found, not in inflammation of any organ, but in yellow atrophy of the brain and yellow atrophy of the liver,—both essentially acute fatty degenerations.

Perhaps few pathological principles have met with more prompt and general acceptance than fatty degeneration of the heart in all its bearings; for, while it offered a sufficient explanation of much that had before seemed perplexing, it contradicted no known and established doctrines. Subsequent clinical experience has confirmed and extended the earlier deductions, and extends them still; and if yet there is a feeling of disappointment because angina pectoris has not received a full explanation from our present knowledge of fatty degeneration of the heart, is not this partly because cases of angina pectoris have seemingly become more rare, from the greater precision which the knowledge of this anatomical change has introduced into the nomenclature of cardiac disease?

Only one word more in conclusion. I have dwelt in this very brief summary chiefly on such parts of the subject as seem at present to be engaging attention or demanding inquiry —rather on the outskirts of the growing field of our knowledge, as it were, than on what has been reclaimed as a permanent acquisition to science. When, as years go by, perhaps some one shall return to this subject on such an occasion as the present, though some of the opinions which for the while seem reasonable may have been shown to be wrong, yet I cannot doubt that much of the labours of the present generation will be permanently embodied in that still larger and better knowledge of cardiac pathology which I venture to anticipate.

APPENDIX.

A Chemical Investigation of the Pathology of Fatty Degeneration.

In the preceding address I have expressed my opinion that the process of fatty degeneration, by which the muscular structure of the heart is changed into fat during life, is essentially a pathological, a vital, not merely a chemical process. I propose, in the following remarks, to examine at greater length than the nature of a general address would allow, the the opidence on which this opinion has been based. The chemical analyses on which I rely have been performed for me with the greatest care by Mr. James Peel, Dispenser to the Sussex County Hospital, and my best thanks are due to him for the zeal and accuracy with which he has carried out the inquiry and conducted all the experiments which I had devised, or he had himself suggested.

There are three questions to be solved:—1. What are the chemical results of fatty degeneration of the muscular substance of the heart? 2. Can these results be obtained by acting chemically on the healthy muscular substance of the heart, or by any of the methods employed to form adipocere? 3. What is the nature of adipocere, and what relation does this so-called result of chemical fatty degeneration bear to the result of pathological fatty degeneration? If the answers which I have obtained to these three questions are to be trusted, the inference seems certain that fatty degeneration and adipocerous transformation are two different processes, dissimilar both in their results and in the steps by which these ultimate results are arrived at.

The muscular tissue for experiment was cut into small pieces, picked as free from adipose tissue as possible, and dried by pressure in a clean cloth. Five hundred grains were then taken for immediate analysis; an equal quantity was placed in one of the decomposing solutions; and the rest was placed in a corresponding solution, for the purpose of trial during the progress of the experiment. For analysis, the muscular fibre, whether recentor after the chemical decomposition, was finely divided by triturition in a mortar with clean sharp sand, and exhausted repeatedly with ether. The etherial solution was filtered, evaporated to dryness, and the nature and weight of the extract determined.

1. What are the chemical results of fatty degeneration?

The amount of fatty matter present in seemingly healthy hearts varied from 0·22 to 2·14 per cent., the mean of seven observations being 0·916. Excluding two observations which contrasted strongly with the rest, the extremes were 0·22 and 0.54; the mean of these five observations being 0·455. I must observe that these two hearts were not especially chosen as healthy hearts, but as the first two specimens available for the chemical operations which had been determined on. Probably they were fat hearts.

In two hearts marked as granular the fatty matter constituted 0·48 and 2·0 per cent. of the mass experimented on, the mean being 1·24 per cent. One marked as distinctly fatty contained 2·74 per cent. I remember that the greatest care was taken in this case to pick out any portions of adipose tissue from the substance to be analysed; so that the amount of fatty matter found on analysis is rather below than above the truth.

Now, though the per-centage of fatty matter in a heart not marked as unhealthy differed very little from that in the fatty heart—as little, indeed, as 2·14 from 2·74—yet the nature of the fatty matter was very different in the two cases respectively. In the healthy heart it was hard, dry margarine, while in the fatty heart the crystals of margarine swam in the oily part of the extract. One of the granular hearts displayed in a less degree this same excess of oleine. The fair inference seems to be, that in fatty degeneration of the heart the fatty matter is increased, and that this is mainly due to an increase of the oleine, which enters only to a small amount into the composition of the fat of a healthy human heart.

II. Can these results be obtained by acting chemically on healthy muscular substance of the heart by any of the methods employed to form adipocere?

Three methods were followed—namely, the long-continued action of slowly running water, soaking in dilute nitric acid, and soaking in dilute alcohol.

1. All our attempts to convert a definite quantity of muscular fibre into adipocere by a slow stream of water failed. When the meshes of the net containing the weighed muscle were fine they became clogged, and prevented the free access of water, and the muscle putrefied. Coarser meshes allowed fragments of the softened tissue to escape. After varying the form of the apparatus several times to no purpose, we gave up this part of the inquiry. Incidentally a curious result was obtained. Some loose fragments of muscle, laid in a dish with common water from the tap, containing lime in solution, were converted into adipocere. Some other similar fragments laid in distilled water underwent no such change until pieces of bone were laid in the distilled water, when the formation of adipocere immediately began. However, notwithstanding all our care, none of the experiments with weighed portions of muscle, of which the fatty constituents had been previously determined by analysis, succeeded.

2. A portion of the muscular substance of a heart which had previously been found to contain 2·14 per cent. of fatty matter, chiefly margarine, was left to soak for twenty months in dilute nitric acid, sp. gr. 1·42 (1 to 16) in a stoppered bottle. At the end of this time the fatty matters were found to amount to no more than 1·1 per cent. of the five hundred grains operated on. The mass had been changed into a substance having the smell and appearance of ointment of nitrate of mercury. The elements of the fat originally existing in the mass had been newly arranged under the influence of the nitric acid, part having assumed the form of an aromatic ether. Much of the fat had been destroyed, but never at any time during the process was there any evidence of the fat having been increased in quantity.

The muscular fibres generally retained their form, clearly recognisable under the microscope. The fibrils were broken off short into minute fragments, but each of these displayed distinctly either the transverse striæ or that longitudinal dotting which characterises the stage of granular degeneration already spoken of.

Again, two hundred and fifty grains of pure fibrine from bullock's blood, freed from all fatty matter by ether, were treated in the same way and for the same period. Not a trace of fat, of any of the oily acids, or of the results of their decomposition, could be found on analysis.

3. A portion of the muscular substance of a heart, which had been previously determined to contain 2 per cent. of fatty matter, was left to soak for eight months in dilute alcohol (1 to 7) in a stoppered bottle. As with the dilute nitric acid, this bottle was nearly filled with the solution, occasionally

shaken, but rarely, if ever, opened; and all observations were made on a similar trial solution. At the end of this time the mass was found to contain 1·92 per cent. of fatty and fatty salts of whatever kind. The fat seemed to have been destroyed, to this extent, by the process to which the muscular fibre had been submitted.

To the naked eye, the muscle thus acted upon appeared as a reddish, flocculent mass, in which the division of the fibres into bundles was indistinctly perceived. Under the microscope, however, all was obscure. A few granular fibrils could be picked out here and there; but the rest was an indistinct, flocculent mass, with something of a linear arrangement. It contained a few white, opaque grains with a radiating structure, apparently composed of a soap of lime. No loose fat appeared anywhere, and ether had very little effect in clearing the field.

The inference from these observations seems to be, that fatty degeneration cannot be artificially imitated by these methods. One step, indeed, adipocerous transformation and fatty degeneration seem to have in common, that which we recognise as the stage of granular degeneration; but, as chemical analysis shows that this appearance is not necessarily accompanied by any increase of the fatty constituents, we must regard it here as an optical change only.

III. What is the nature of adipocere, and what relation does this so-called result of chemical fatty degeneration bear to the result of pathological fatty degeneration?

To answer this question, adipocere was obtained from the different sources which the macerating jars of the Sussex County Hospital Museum supplied, and from a large specimen in the Museum of the Royal College of Surgeons. For the liberality with which my wishes were met, and a portion of this specimen placed in my hands for analysis, I beg to express my sincere thanks to the Committee of the College Museum, and to their zealous Curator, Mr. Flower, whose kindness on this, as on other occasions, I have much pleasure in acknowledging.

1. Adipocere obtained from the neighbourhood of the bones of the head of a sword-fish, was found to be composed of margaric and oleic acids; the latter in excess, combined with lime. There was a small quantity of unaltered fat and of free fatty acids, also some nitrogenous matter undecomposed.

2. From adipocere which had gathered round human bones, the same general results were obtained; only the margaric acid salts preponderated over the oleic, and the saponification seemed more complete. This last result seemed due to the longer time during which the specimen had been macerating. The adipocere obtained from these sources, and from a mass of human muscle, burned with a clear flame, leaving a white, alkaline ash; but the fat from fatty hearts burned entirely away without any residue.

3. A portion of adipocere from the human thigh (prep. No. 1832*d*, Mus. Coll. Surgeons) was submitted to a most careful analysis, to test in some way the accuracy of the previous observations. It was composed of white, stringy fibres powdered over with a dry substance, which lay partly between the bundles of fibres, and partly in distinct masses. This substance had no definite form, and only obstructed the view of the fibres to which it adhered. When it was removed by ether, or more completely by cold liquor potassæ, regular fibrous tissue, just such as is seen in muscular fasciæ, came into view. A very little heat sufficed to gelatinise this tissue.

The nature of the different constituents having been determined on separate portions, an exact quantitative analysis was made of ten grains of the specimen, giving—

Free margaric and oleic acids	4·1
Margarate and oleate of lime, with traces of magnesia	2·4
A peculiar fibre, containing nitrogen and traces of phosphate of lime	3·4
Water	0·1
	10·0

In the fatty matter here present, margaric acid so predominated that it was necessary to add olive oil to allow it to crystallise freely in its characteristic form. In this, as in all other respects, this adipocere agreed perfectly with other specimens of adipocere from the human subject, and contrasted strongly with the results of fatty degeneration.

To recapitulate these conclusions. The muscular tissue of seemingly healthy hearts contains a variable amount of fatty matter. In the condition known as granular degeneration, pathologically induced, the quantity of fat and the proportion of oleine is slightly but not constantly increased. In the same artificially induced by decomposition, there is no such increase, In advanced fatty degeneration the quantity of the fat and the proportion of the oleine to the margarine is much increased.

The common method of obtaining adipocere from muscular tissue—namely, by the action of running water, gives no results accurate enough for the basis of a quantitative analysis; but two other methods—namely, by the action of dilute nitric acid and of dilute alcohol, are readily available. By these reagents fat is decomposed, and saponified if the bases be present; but there is no evidence that fat can be made by either of these methods, or that one kind of fatty acid can be changed into another.

It would be too much to say that under no circumstances whatever can fatty matter be formed from muscular fibre by a purely chemical process: at least, it was not so formed here in these most carefully conducted experiments. And the analysis of adipocere does not favour the belief that it is a newly-formed substance, but rather that it is a new arrangement of the old materials, a saponification of the fat already existing.

Adipocerous transformation, then, if I am right in these conclusions, is altogether different from fatty degeneration. The one is a chemical change of dead, decomposing matter; the other is a pathological process, and the part which chemistry plays is, as in inflammation and secretion, subordinate to the influences which are at work, however feebly, in a living body.

(To be continued next week.)

REVIEWS.

Medical Diagnosis, with Special Reference to Practical Medicine: a Guide to the Knowledge and Discrimination of Diseases. By J. M. Da Costa, M.D., Lecturer on Clinical Medicine, and Physician to the Philadelphia Hospital, etc. Philadelphia: J. B. Lippincott and Co. 1864. Pp. 690.

A book on Medical diagnosis to be complete must discuss—first, the general principles of the art, and the method to be adopted with a view to arriving at the principal seat and nature of the malady in an individual patient; and next, it must enter fully into the value which is to be attached to the signs of aberration from health, whether taken singly or combined. The author of the work before us dismisses the first of these topics very briefly in the space of a few introductory pages, and in the first chapter considers the general indications derived from the aspect and posture of a patient, his pulse, his skin, and tongue. The main bulk of the volume, however, is devoted to special diagnosis, "his chief aim" in writing the book being, as he tells us, "to furnish advanced students with a guide that may be of service to them in their endeavours to discriminate disease." Now, next to general correctness, the utility of such a book will principally depend upon the method which the author adopts in arranging his materials. The best method, on the whole, could it be satisfactorily carried out, we believe to be that which approaches most closely to the plan on which any one of us would proceed to investigate the nature of a new case. And this plan usually is to leave the patient, where he is able to do so, to tell his own story, while we seize upon the more prominent of his complaints as the basis for additional inquiries, at the same time that we take note of the more obvious objective phenomena that he presents, and carry out our investigations with a view to elucidate their cause. The chief objection to the adoption of this method of treating the subject is that the reader is apt to lose the general view of a morbid state, such as he would gain did the author follow some customary pathological classification. Another difficulty is this, that an author has to select some one prominent class of symptoms, or some one marked condition of disease, such as shall be common to a number of maladies, and make these the basis of a classification which shall be purely clinical; and thus some of the value of the book is lost where we may seek the assistance of the author in cases where the symptoms referred to chance to be less prominent than others. And this is the method adopted by the author of this volume. He has accomplished his task as well as the plan he has adopted will permit, and much of its inconvenience is obviated by the addition of a copious index. Let us illustrate his method a little further. We may take Chapter II. as an example. It professes to treat of "Diseases of the Brain, Spinal Cord, and their Nerves." First he takes Diseased Intellection, and discusses under this head the pathological value of delirium, stupor, coma, and insomnia.

Next Deranged Sensation, including under this hyperæsthesia, anæsthesia, headache, vertigo, and derangement of special senses, and so on; Deranged Motion, where he treats of paralysis, tremor, convulsions, etc., etc. Diseases of the Lungs he divides thus:—"Diseases in which clearness on percussion is met with," "diseases in which dulness on percussion occurs," "diseases presenting dilatation of the chest," with displacements, "diseases in which retraction of the chest occurs." Under each symptom the author tells us the maladies in which it is apt to occur, and the mode in which they are to be distinguished. Thus, when discussing delirium as a prominent symptom in acute affections he mentions acute meningitis, which he tells us "may be confounded with cerebritis, head symptoms of continued fever, head symptoms of acute rheumatism, head symptoms of pneumonia and pericarditis." We will, rather on account of their brevity than anything else, quote his remarks on the last of this list of morbid conditions:—

"*Head Symptoms of Pneumonia; of Pericarditis.*—In both these maladies delirium may be met with of a character so violent as to lead to the belief that the brain or its membranes are involved in an inflammatory disease. The diagnosis is cleared up by a careful examination of the chest. Then we may lay stress on the furious delirium being unattended with spasmodic movements or with paralysis. The form of pneumonia which is most associated with delirium is inflammation of the upper lobes."—Page 74.

Of course, this is not all he has to say about pneumonia and pericarditis, since the former is fully discussed among the "diseases in which dulness on percussion occurs," and the latter among "acute diseases of the heart, presenting pain in the cardiac region, symptoms of a disturbed circulation, and a change in the sounds of the heart, or their replacement by murmurs." Altogether the book is a sound one.

GENERAL CORRESPONDENCE.

OVA IN OVARIAN CYSTS.

LETTER FROM MR. SPENCER WELLS.

[To the Editor of the Medical Times and Gazette.]

SIR,—The statement made in one of your recent Hospital Reports as to the discovery of Ova in the enlarged Ovisacs or Graafian follicles of two ovarian tumours which I removed from a patient 54 years of age, has led to so many inquiries from Professional friends, that I think it may interest your readers generally if the answer to those inquiries is made known to them.

The two tumours in question were examined directly after their removal by Dr. Ritchie, who pointed out to me in each of them a number of small cysts which were evidently enlarged Graafian follicles. Knowing the great and long familiarity which Dr. Woodham Webb has had with the ova of various species of animals since his researches in conjunction with Barry, I asked him to examine some of the cysts in order to ascertain whether they did or did not contain ova—knowing that upon this point no higher authority could be appealed to. As one friend has suggested that we may have mistaken a *blood corpuscle!* for an ovum, there was evidently some reason for my caution; but I trust that the following note from Dr. Webb will set all such doubts at rest:—

"Both the tumours you sent to me after their removal from a woman, 54 years old, were growths in excess of true ovarian structure. The multilocular character was produced by clusters of ovisacs of various sizes. Ova with the other natural contents were to be found in all the small sacs. The fibrous coats of the larger sacs were thickened, and had many other secondary sacs developed in them. The interior was lined with epithelium, which, in some instances, had, by parthenogenetic enlargement and successive buddings of the cells, given rise to bunches of grape-like growths—repeated generations of imperfect ova. The whole, therefore, was nothing more than a reproduction in the human subject of conditions which are natural in some of the lower creatures. I suppose the description in your orthodox pathological terms would be hypertrophy of the ovisacs with arrested development of the contents."

I make no addition of my own to this note, as I am aware that Dr. Ritchie will state his own views to you, and I trust that mine will be placed fully before the Profession in the autumn in a work upon which I have long been engaged on the Diagnosis and Treatment of Diseases of the Ovaries.

I am, &c.

T. SPENCER WELLS.

3, Upper Grosvenor-street, August 1.

LETTER FROM DR. CHAS. G. RITCHIE.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the last report of ovariotomy cases performed at the Samaritan Hospital which appeared in the *Medical Times and Gazette* the fact is alluded to that Dr. Woodham Webb and myself had succeeded in finding the ovum in several so-called secondary cysts in an ovarian tumour which Mr. Spencer Wells had removed by ovariotomy. Before and since the particular observation referred to, I have been struck with the probability of many so-called ovarian cysts being actually due to degeneration of the ovum itself. In one ovarian tumour which, through Mr. Wells' kindness, I had an opportunity of examining, I found a number of thin walled bladders, varying from the size of a cherry to that of a large plum. These bladders were easily enucleated from the fibrous stroma which surrounded them, and there could be no reasonable doubt that they were Graafian follicles somewhat distended by over-secretion. The interior of these cysts were searched in vain for the ovum, but I was much struck with the fact that in the great majority of them the cyst wall was thickened at one point and at one only, and that on making a section through that point a small secondary cyst was discovered. No doubt it will be said that at this point endogenous growth had commenced, but it is a significant fact that there was only one such growth to each follicle, and that it lay imbedded in a thickening of its inner coat. What can be more probable than that it was the ovum lying imbedded in its cumulus proligerus?

We know that every ovum, whether it be fertilised or not, undergoes certain definite changes on arriving at maturity. The yolk, by successive cleavings, is transformed into the corpus muriformis. This mulberry body becomes hollow in its centre, and the cavity thus formed goes on increasing in size until at length it has forced its walls into contact with the yolk bag, when it is known as the blastodermic vesicle. Those changes have, as far as I am aware, as yet only been observed while the ovum was contained in the Fallopian tube; but it certainly is perfectly conceivable that in those cases where ripe follicles fail to burst, the matured ovum should undergo its wonted metamorphosis while still contained in its ovisac. Nor is it absurd to suppose that under those altered circumstances the progressive dilatation of the blastodermic vesicle should occasionally exceed its normal limit and go on to the formation of a cyst which, in structure and position, would exactly correspond to the little secondary cavity which was seen in the wall of the enlarged Graafian follicle.

I cannot think, however, that the ovum always stops short at this early stage of its development. Its constant tendency is towards the formation of a new animal, but when deprived of the stimulus of the spermatozoon, it constantly falls short of its aim. Perhaps it may go on to the production of what, were it found in the uterus, would be styled a grape mole; perhaps other forms of cystic degeneration may be more frequent.

If this theory be correct, we have an easy explanation of the occurrence in ovarian tumours of such structures as true bone, true striated muscular fibre, fat, skin, teeth, etc., whose presence has never been satisfactorily accounted for. Nothing can be more certain than that ovarian cysts may be produced in a great variety of different ways. Kiwisch showed us how the fibrous stroma might hypertrophy and become cystic. Rokitansky, not content with having been the first to demonstrate the ovum in these cysts, has also been the first to describe minutely the morbid changes which may occur in corpora lutea. Very recently, Dr. Wilson Fox had traced with great care modifications of the Graafian follicles themselves. Would it not be strange if, of all the constituents of the ovary, only one should be incapable of morbid alteration, and that one precisely the part in which the most active and most extraordinary changes take place physiologically? The point is susceptible of proof, and only requires patient investigation; but in the meantime nothing can be more probable than that the contents of many ovarian tumours are the result of perverted attempts at parthenogenesis.

I am, &c.,

CHAS. G. RITCHIE.

36, Mount-street, Grosvenor-square, July 30.

TRICHINOSIS, OR FLESH-WORM DISEASE, ON BOARD AN ENGLISH VESSEL (?)

LETTER FROM DR. ALTHAUS.

[To the Editor of the Medical Times and Gazette.]

SIR,—The following paragraph appears in the *Times* for August 1, 1864 :—

"A SHIP'S CREW POISONED.—On Saturday intelligence was received that the officers and crew of the bark *Ouse*, of Sunderland, which lately sailed from the Tyne, bound to Alexandria, had been maliciously poisoned by the cook. The particulars which have arrived are very scanty, but it appears that the vessel had a crew of ten seamen. A west countryman, who acted as cook, from a feeling of revenge for some grievance, conceived the idea of poisoning the entire crew. He mixed poison among the men's daily rations, and shortly after partaking of them all hands became ill. The mate, a seaman named Alder, Burton Brown, a young man pilot, and another sailor named James Doyle, died from the effects of the poison. The remainder of the crew sufficiently recovered to navigate the vessel to San Roque, near Gibraltar, whence the master has telegraphed to the owner of the vessel, Mr. Thurlbeck, of Sunderland, informing him of the occurrence. Upon the vessel arriving in port, the cook was given into the custody of the authorities, and charged with murder. They are investigating the affair. In the meantime the vessel is detained."

Although the details given in the above narrative are very scanty, yet there appears to be a striking resemblance between this and another event which occurred a few years ago on board a merchant vessel bound from Valparaiso for Hamburg, and which I have related in my essay on "Trichinosis, or Flesh-worm Disease." In that ship, soon after leaving Valparaiso, almost the whole of the crew fell ill, and two of them died. Suspicions of poisoning attached to the cook, as in the case of the *Ouse*; but it was satisfactorily shown by the medical men of Hamburg, who reported on the case, that the illness was due to the crew having eaten pork, which was infected by trichina spiralis, and which, if introduced into the human system, is known to cause dangerous illness, and even death. On leaving Valparaiso, the cook had bought a pig which was slaughtered, and part of which was eaten by the crew; the rest of the animal was salted and kept. A piece of the salted pork was examined by the microscope, and was shown to contain a large number of worms of the Trichina species. In a boy who had died, and where an autopsy was made, the worms were found still alive. It was thus shown that no criminal intent whatever could be attributed to the cook, and the same may be the case with the cook of the *Ouse*, whose life is now at stake.

I have no hesitation in saying that the case of poisoning on board the *Ouse* looks remarkably like one of Trichinosis. Your insertion of the above remarks may serve to draw the attention of the authorities in Gibraltar to the matter, and may save the life of a man who is, perhaps, unjustly accused of murder.

I am, etc.,

JULIUS ALTHAUS, M.D.

MEDICAL NEWS.

UNIVERSITY INTELLIGENCE.—UNIVERSITY OF LONDON, 1864.—The following is a list of Candidates who passed the Examination indicated :—

BACHELOR OF MEDICINE. — PRELIMINARY SCIENTIFIC EXAMINATION. —*First Division.*—*a* Anningson, Bushell, King's College; Bennett, Frederic Charles, private study; Berridge, Edward William, St Bartholomew's Hospital; Buckle, William Turberville, King's College; Cheetham, Joseph Priestnall, Guy's Hospital; *a* Dove, John Reuben Bathurst, London Hospital; Fiddian, Alexander Paull, private tuition; Garrett, William James, St. Bartholomew's Hospital; *a* Giles, William Betts, Guy's Hospital; Gowers, William Richard, University College; Kenyon, George Arthur, St. George's Hospital; Kisch, Albert, St. Thomas's and London Hospitals; Loy, Thomas Richardson, University College; *a* McCarthy, Jeremiah, M.A. Dublin, Dublin University; Marshall, Francis John, St. Mary's Hospital; May, Bennett, Sydenham College, Birmingham; Morris, Henry, Guy's Hospital; Parsons, Henry Franklin, St. Mary's Hospital; Raine, George Rolph, Guy's Hospital; Richards, William Alsept, King's College; *a* Scott, William Benjamin Archibald, University College; *a* Shaw, Thomas Claye, King's College; Taylor, Frederick, Guy's Hospital; Thomas, George Alfred, St. Bartholomew's Hospital; Thomas, William, Queen's College, Birmingham; Treves, William Knight, St. Thomas's Hospital; Williams, Joseph, St. Thomas's Hospital; Wright, Charles Romley Alder, Owen's College.

Second Division.—Addenbrooke, Edward Homfray, General Hospital, Birmingham; *a* Bonus, John, University College; *a* Budd, Herbert Goldingham, Guy's Hospital; Cortis, William Richard, Guy's Hospital; *a* Courtney, Stanley Thomas, St. George's Hospital; Crowfoot, Edward Bowles, St. Bartholomew's Hospital; Greene, Walter, Guy's Hospital; Haynes, Frederick Harry, St. Bartholomew's Hospital; *a* James, John, University College; Langmore, John Wreford, University College; Leigh, Richmond, Liverpool Infirmary; Maasdorp, Gysbert Henry, University College; *a* Maclure, Duncan McLachlan (non-matr.), Westminster Hospital; Marshall, Henry Flamank, Sydenham College, Birmingham; Read, Arthur Walter, General Hospital, Birmingham; Rootes, George, Guy's Hospital; Seccombe, Edward Hepburne, King's College; Shaw, Frederick Charles, St. Bartholomew's Hospital; Smith, Joseph William, King's College; Snow, Herbert Lumley, Queen's College, Birmingham; Stocker, James Reginald, Guy's Hospital; Wyman, John Sanderson, General Hospital, Birmingham.

(Those marked *a* in Chemistry and Botany only.)

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary Examinations for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 28th inst. :—

Edward Napier Dibb, Sheffield; Henry William Pullan, Epworth, near Bantry; Charles Vincent Newstead, Otley, Yorkshire, and Albert Field, Bradford, students of the Leeds School; Allen Fennings, Islington, William Porter Somerset, Claydon, Bucks, and James Thomas McMahon, L.S.A., Rochester-terrace, Camden-town, of the Charing-cross Hospital; John Comyns Leach, Crediton, Devon, Edmund Nash, M.D. Edin., Kensington, and William Sheldon, M.D. Edin., Stratford-on-Avon, of University College; Philip Edward Hill, Cardiff, and Philip George Philps, L.S.A., Bayswater, of St. Mary's Hospital; John Rostron Woodcock, Manchester, and Edward Kelsal Lever, L.S.A., Padiham, near Burnley, of the Manchester School; Alfred Brend, L.S.A., Bideford, Devon, and George Herbert Whidborne, Guildford-street, of the Middlesex Hospital; Frank Argles, Maidstone, of King's College: Francis Thomas Taylor, Deptford, of Guy's Hospital: Llewellyn Powell, New Zealand, of St. Bartholomew's Hospital; Thomas John Colman, Bristol; Vaughan Carnley, Hull; Peter Hume Gentle, M.D. Edin., Inverness.

The following gentlemen were admitted Members on the 29th inst. :—

Fenwick Metcalf, Wisbeach, and Thomas Prince Fothergill, Bedale, Yorkshire, of King's College; John William Jones, Bangor, N. Wales, and Edward Thomas Charles Ellis, Bexley-heath, of Charing-cross Hospital; Edward Carpenter, L.S.A., Lambeth, of St. Thomas's Hospital; Charles Albert Hingston, Plymouth, of St. Bartholomew's Hospital; Petros Constantinides, M.B. Toronto, Canada, and Richard Talbot, Limehouse, of Guy's Hospital; Henry Arnott, Cheltenham, and Richard Lewis Shone, L.S.A., Great Marlow, of University College; Griffith Llewelyn Carreg, Carnarvon; Thomas Hinchliffe Haigh, L.S.A., Huddersfield; Benjamin Locking, Hull; Andrew Allan McClure, M.D. Penns., Pennsylvania; James Kelly, M.D. Queen's Univ. Ireland, Clare; John Martin Fraser, M.D. Kingston, Canada; Alfred Paget Evans, L.S.A., West Bromwich; Isaiah de Souche, Pennsylvania; William Booth Swann, Leeds.

The following gentlemen were admitted Members on the 30th inst., being the last meeting of the Court of Examiners for the present Session :—

William Powles, Strand, and Byron Blewitt, Algiers, students of the London Hospital; Thomas George Palmer Hallett, Langport, Somerset, of University College; Robert Nasmyth Macpherson, Edinburgh, of the Westminster Hospital; Reuben Zaccheus Miller, Richmond, of the Middlesex Hospital; William Hicks Bryant, Plymouth, of St. Bartholomew's Hospital; John William Devereux Bain, Blackwall, of St. Thomas's Hospital; Charles Peyton Moreton, Leitrim, Dublin; James Ledingham, M.D., M.C., and M.A. Univ. Aberd., Aberdeen.

APOTHECARIES' HALL. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, July 28, 1864 :—

Thomas Hinchliffe Haigh, Golcar, near Huddersfield; James Taylor, Chapel-en-le-Frith, Derbyshire; George Arthur Brown, Welchpool, Montgomeryshire; Alfred Paget Evans, West Bromwich; John Foulkes Jones, Dolgelly, near Wales; James Cotton Byles, Victoria-park-road, Hackney; Frederick George Lawrence, Malmesbury; William Frederick Watts, Dewsbury; James Hamilton Martin, Tregony, Cornwall; George Richard Lawrence, Wantage, Berks; Michael Drury Lavin, Bushey, Herts; John Sidney Turner, Guy's Hospital; Frederick Arthur Best, Cambridge-street, Hyde-park; Allen Wearing, Lancaster; Griffith Davis Morris, Dyffryn, North Wales; John Roy Quick, Old Kent-road.

The following gentlemen, also on the same day, passed their First Examination :—

John William Hembrough, St. Bartholomew's Hospital; Henry Clothier, and John Pearson Hughes, University College Hospital; Frederic Flint, King's College Hospital; Theodore Thos. Taylor and Nathl. Thos. John Haydon, St. Mary's Hospital; Other Windsor Berry, Charing-cross Hospital; William Joseph Marsh, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

EDWARD, J. H., M.R.C.S.E., has been appointed Junior House-Surgeon to St. Mary's Hospital, Manchester.

FRENCH, EDWARD P., L.R.C.S.I., has been elected Medical Officer to the Headford Dispensary, Co. Galway.

GREENHALGH, ROBERT, M.R.C.P. Lond., has been elected Consulting Physician-Accoucheur to the City of London Lying-in Hospital.

SINCLAIR, EDWARD B., M.D. Dub, has been elected Professor of Midwifery in the School of Physic, Ireland.

DEATHS.

BELL, WILLIAM, M.D. Edin., at George-street, Hanover-square, W., on July 23.

BIRD, GEORGE, L.S.A., at Tollerton, Yorkshire, on July 31, aged 65.

BRIGHAM, WILLIAM, F.R.C.S.E., in London, on July 27, of Brigham, Yorkshire.

FURBER, GEORGE, M.R.C.S.E., at Torriano-avenue, Camden-town, N.W., on July 25, aged 70, formerly of Malpas, Cheshire.

JONES, CHARLES, M.R.C.S. Eng., at Alton, Hants, on July 25, aged 60.

SOLTAU, WILLIAM FRANCIS, M.B. Oxon, at Plymouth, on July 30, aged 51.

STEWARD, G. W., M.B., at Grosvenor-terrace, Warwick-square, S.W., on July 23, aged 28.

WILDBORE, DANIEL H. G., M.D. Aberd., at 2, Charlotte-street, Fitzroy-square, W., on July 27.

THE APPROACHING EXAMINATION FOR THE ARMY MEDICAL DEPARTMENT.—We hear on good authority that there are a good many candidates coming forward for the next army examination. They are principally obtained, we are informed, from the Dublin, Glasgow, and Aberdeen Schools. As on former occasions, the first-named will probably be in an ascendancy as regards numbers. Many, doubtless, are offering themselves because they see great changes ahead, and hope to get in *now* on easier terms than when there is an approach to a *competitive* examination.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At a meeting of the College held on the 29th ult., Dr. E. B. Sinclair was duly elected Professor of Midwifery, in the room of Dr. Fleetwood Churchill, resigned.

APOTHECARIES' HALL OF IRELAND.—At a meeting of the General Council held, pursuant to Act of Parliament, on the 1st inst., the following officers were duly elected for the year 1864-65:—*Governor*—Dr. Mulock. *Deputy-Governor*—Dr. Owens. *Court of Examiners* (with the Governor and Deputy-Governor)—Messrs. Collins, Dirham, Harvey, Montgomery, O'Flaherty, White, Drs. Holmes, Leet, Madden, Madden, jun., Nolan, Shea, Wyse. *Examiners in Arts*—Drs. Atkinson and Moore.

THE NEW ZEALAND WAR SURGERY.—The results of the operations which have been performed during the present war in New Zealand have been highly creditable to the Army Surgeons. Numerous cases of resection of large joints and amputation have terminated most satisfactorily. What would have been the case if the patients had fallen into the hands of some of Dr. Parkes' illustrious rejections?

CHARING-CROSS HOSPITAL COLLEGE OF MEDICINE.—The annual distribution of the prizes took place on Thursday, July 21. The following gentlemen were the successful candidates:—*Anatomy:* Silver Medal, Mr. Other Windsor Berry; First Certificate, Mr. Allen Fenning; second ditto, Mr. R. Y. V. Packman; third ditto, Mr. Thomas H. Tidswell; fourth ditto, Mr. Thomas S. Dowse and Mr. William G. Sutcliffe. Bronze Medal, Mr. Samuel S. White; First Certificate, Mr. J. K. Hyde, second ditto, Mr. William Alfred Cox. *Chemistry:* Silver Medal, Mr. Frederick Howse; Certificate, Mr. S. S. White. *Surgery:* Silver Medal, Mr. Frederick Le Fevre Milburn; Certificate and Book, Mr. Charles F. Knight. Bronze Medal, Mr. S. S. White; Certificate and Book, Mr. William Alfred Cox. *Physiology:* Silver Medal, Mr. Thomas S. Dowse, Mr. O. W. Berry (having been a successful competitor in the same branch of study the previous year) being ineligible. Bronze Medal, Mr. William Henry Netherclift; First Certificate, Mr. Watkin W. Jones; second ditto, Mr. S. S. White. *Medicine:* Silver Medal, Mr. Henry Willson; Certificate, Mr. Knight. *Materia Medica:* Silver Medal, Mr. David M. Williams; Certificate, Mr. A. R. Verity. *Botany:* Silver Medal, Mr. D. M. Williams. *Midwifery:* Silver Medal, Mr. J. W. Jones; Certificate, Mr. Edward Dyer. *Forensic Medicine:* Silver Medal, Mr. D. M. Williams; Certificate, Mr. Dyer. *Practical Chemistry:* Certificate, Mr. S. S. White.

DEATH OF DR. ABRAHAM.—The recent retirement of Dr. Abraham from some portion of his public duties was, as most were aware at the time, the result of illness, which terminated fatally on Saturday last, at the residence of his sister, Marsden-villa, Haverstock-hill. His life was an active one, and he does not depart from us without leaving a gap behind him to mark where he stood and what he did. His friends cannot but lament him as they miss him from his accustomed posts, and those who differed from him will feel constrained to respect his memory. Dr. Abraham was born in 1807, at Bampton, in Devonshire. At the time of his death he was on the Commission of Sewers, and also on the Pauper Lunatic Asylum Committee. For some time he was a frequent speaker at the vestry meetings of St. Botolph, Bishopsgate. He was also a governor of Dulwich College, and of Bridewell and Bethlehem Hospitals. Nor while thus busily engaged in these multifarious matters did he neglect the cause of the poor, of whose rights he was invariably a most strenuous supporter. As treasurer of the London Philanthropic Society, he did much to advance the welfare of the outcast and miserable, in which worthy task he was ably seconded by Mr. J. H. Heeps, the hon. secretary of that society. He also evinced a deep interest in ragged schools, and rendered most valuable assistance in the establishing of one in Foster-street. We had almost omitted to mention, amongst his other associations, that he was a member of the Spectacle-makers' Company.—*City Press.*

THE PRINCE OF WALES AT NETLEY.—On Monday last, within the grounds attached to the Royal Victoria Military Hospital at Netley, the Prince of Wales laid the foundation-stone of a monumental cross, to be erected in memory of the Medical officers of the British army who fell in the Crimean war. The memorial, which will cost about £1000, has been designed by Mr. T. Hayter Lewis, architect, of John-street, Adelphi. It will be a plain monumental cross in the style of the beginning of the thirteenth century, fifty-six feet in height. The lower part will consist of a series of arches forming an octagonal arcade, supported on sixteen coupled columns of Derbyshire marble, the principal part of the erection being of Portland stone. Under this arcade will be placed marble tablets explaining the object of the memorial, and recording the names of the Medical officers who fell in the Crimean war. This will be surmounted by a smaller arcade, also of an octagonal form, the column thence tapering up gradually to a large cross. The site chosen for the erection is close by the river front of the grounds, and nearly opposite the Medical officers' quarters. The hour fixed for the arrival of the Prince of Wales from Osborne was half-past 12 o'clock, at which time the royal yacht *Fairy* steamed up the river, and about ten minutes afterwards the Prince landed at the pier, accompanied by his Royal Highness Prince Louis of Hesse and the Prince Leiningen. He was received on landing by a large assemblage of Medical, military, and naval officers. A procession was formed, headed by Captain Hawtree, captain of orderlies, and Lieutenant and Adjutant H. Seville. They were followed by the Medical students and then the Medical staff of the Hospital, all in full uniforms, who walked in advance of the Royal visitors and the military and naval authorities to the site of the monument. The proceedings then commenced by Dr. Gibson reading an address to the Prince, of which the following is a copy:—"May it please your Royal Highness,—During the war with Russia in 1854, 1855, and 1856, her Majesty's army lost by death fifty-four officers of the Medical department, who were serving in the campaign, and six Physicians and Surgeons attached for duty to, but not commissioned officers of, the army. The greater part of these gentlemen died from disease contracted in the discharge of their duties or broke down under the enormous pressure of professional work which was entailed upon them by the sickly condition of the force in the winter of 1854-5. On the conclusion of the war it appeared desirable that some tribute should be paid to the memory of those who had thus sacrificed their lives in affording professional aid to the soldiers who were gallantly fighting their country's battles, and a subscription was commenced for that purpose, which was contributed to not only by the officers of the Medical Department, but also by other officers of all ranks, and by many civilians. Various causes combined to delay the completion of the scheme thus laudably commenced, but at length the committee, to whom was intrusted its execution, in the beginning of the present year, obtained from Mr. T. Hayter Lewis, F.S.A., a design for a monument, which seemed to them well calculated to effect the object in view, and to hand down to succeeding generations the memory of those medical officers who had perished in the service of their country in that war. The committee have ventured to solicit your Royal Highness to inaugurate the work by laying the foundation-stone, from the feeling that such an act on the part of your Royal Highness will be appreciated by the officers of the Army Medical Department, as a tribute to the memory of their deceased comrades, and that the interest shown by your Royal Highness in thus commemorating

the services of those who have fallen at their posts in the discharge of arduous and important duties, cannot fail to prove a stimulus in future to us and to our successors, zealously, faithfully and fearlessly to discharge those duties which may fall to be performed in the service of our Sovereign and for the honour of our country." The Address having been handed to the Prince of Wales, his Royal Highness replied as follows:—"It gives me great pleasure to respond to your request to inaugurate this well-deserved tribute to the memory of those Medical officers who lost their lives in the performance of their onerous and important duties in Her Majesty's service throughout the war in the Crimea. It is also particularly agreeable to me to assist in the foundation of your memorial near this building, connected as it is with the magnificent Hospital in the creation of which my beloved and lamented father took so deep an interest, and in the maintenance of which the Queen also feels a like interest. The site chosen seems to be peculiarly appropriate, as, although the main object of the establishment of this noble Hospital was for the relief of the sick and wounded of the army returning from the colonies, there is connected with it a Medical school for the special instruction of young Medical officers who are to have the future care of our soldiers in all climates and in all parts of the world wherein our troops may be called upon to serve. The names of those Medical officers inscribed upon the memorial will thus be inseparably connected with our great military Hospital and our army Medical school." A prayer having been offered up by the Rev. Mr. Rawlins, temporarily acting as chaplain to the Hospital, the Prince was conducted to a table to append his signature to a copy of the address which was to be deposited under the foundation-stone. This done, the bottle containing copies of *The Times*, the address to the Prince, written on parchment, and a photograph of the monument, was sealed up and deposited in a cavity in the stone. This stone was then lowered with the usual formalities. The Prince of Wales was loudly cheered by the spectators on his departure from the ground. He was subsequently entertained at luncheon before returning to Osborne. The following is a list of the Committee of Management, most if not all of whom, we believe, were present:—Dr. James Brown Gibson, C.B., Director-General of the Army Medical Department, Chairman; Dr. Sir John Hall, K.C.B., Inspector-General; Dr. Thomas Galbraith Logan, Inspector-General; Dr. Thomas Graham Balfour, F.R.S., Deputy Inspector-General; Mr. John Ashton Bostock, Surgeon-Major Scots Fusileer Guards; Mr. George Eleazer Blenkins, Surgeon-Major Grenadier Guards; Staff Surgeon-Major David Reid Mackinnon; Staff-Surgeon John Irvine, M.D.; Mr. John Wyatt, Surgeon, Coldstream Guards, Hon. Secretary; Sir John Hall and Mr. G. E. Blenkins act as Hon. Treasurers.

ATTEMPT AT EXTORTION.—We can conceive nothing more tantalising to a Medical man than to be obliged, as Sir John Gordon was on last Friday, to appear in open court at the plaint of a man whom, in a Medical capacity, he had tried to relieve of tooth-ache. A poor man comes into Sir John's establishment, asks for something to be done to alleviate his sufferings; the request is complied with, a result follows, not as the consequence of the treatment, but, as the Medical evidence proved, of disease present at the time, and the grateful (?) patient brings an action for damages against the person who, to the best of his abilities, tried to do him a service. The Medical gentlemen of this city give a great deal of their time gratuitously to the suffering poor, and it is a very bad return for their kindness and good nature to be exposed to such petty annoyances as the one we allude to. We do not blame the plaintiff so much as his friends who advised him to bring the action; but, before they had given such foolish advice, they should have satisfied themselves as to whether there was any substantial ground for such a course at all. Dr. W. Townsend swore that he himself had over and over again used a like preparation to that which was used in this case, and with no bad result; and such, we believe, would have been the testimony of every Medical man in court. The barrister, as our readers are aware, dismissed the case; he evidently saw from the commencement that it was got up to try and extort money from the defendant. We congratulate Sir John Gordon, and are glad, not only for his own Professional reputation, but also for the sake of the Medical Profession in Cork, that he had the manliness and good sense to come into court and put down such scheming. Had he not in this instance done so, it is more than probable that every Medical Practitioner would be subject to a like insult from any ill-minded individual who might think himself aggrieved by the plan of treatment adopted, and which plan, from some unforeseen cause, did not succeed.—*Cork Southern Cross.*

HOMICIDAL INSANITY WITH EPILEPSY. — Midland Circuit, July 29. Before Mr. Justice Keating.—David Bloy was indicted for the wilful murder of Simon Cote, at Fleet, on December 3, 1863. Mr. Kime prosecuted. The prisoner was undefended. The facts of this case were very simple. The prisoner and the deceased were sleeping in the same ward in the workhouse at Fleet, when the prisoner, who appears to have previously secreted a knife in his bed, went to Cote's bedside and cut his throat, falling down himself immediately after in an epileptic fit. There was no provocation for the act, and no previous quarrel. The prisoner had been for some time under Medical care. He was subject to epileptic fits, and, although regarded as mad, and so returned to the Lunacy Commissioners, was considered harmless, and not put under restraint. About three weeks before the attack upon Cote the prisoner had exhibited the first symptoms of violence in tearing his bed-clothes upon his recovery from an epileptic fit. After cutting Cote's throat the prisoner became decidedly mad, and had only just recovered sufficiently to be put upon his trial now. Cote's wound went on well for a short time, but erysipelas supervened and caused his death. The jury acquitted the prisoner on the ground of insanity, and he was ordered to be detained in confinement during her Majesty's pleasure.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Volante.—Apply to Mr. Copney, at the College of Physicians.

Dr. J. Y.—Machlachlan and Stewart receive the *Medical Times and Gazette* on Saturday morning.

Associate, King's College.—It was at the "Bull's Head" in Clare Market where Dr. Radcliffe was carousing when he received news of the loss of his £5000 venture.

Stourbridge.—Smithyman *v.* Wilson.—We are obliged to postpone our notice until next week. Our Profession are fortunate if it get the barest justice. We must expect no indulgence or sympathy from a "British jury." *They*, at all events, cannot be made to pay for their errors.

Letters from Mr. H. Smith, on "Excision of the Knee-joint," and a County Magistrate and Apothecary are unavoidably postponed from want of space.

Erratum.—In the *Medical Times and Gazette* of July 30, page 122, in the article "The Wounded Guardsman," etc., instead of "Dean," read "Dane."

*** We have been requested to publish the following appeal:—

AN URGENT CASE OF DISTRESS.

The widow and six daughters of a Medical man are reduced to the greatest extremity, and aid is earnestly solicited from the Profession on their behalf. The circumstances of the case are briefly as follow:—

The late Mr. Walker, of Crick, near Rugby, had practised his profession in the above village for half a century, and had during that period brought up respectably a large family, consisting of six daughters and one son, who is in the Medical Profession, and had effected as a provision for them a life policy of £1000; this, together, with five houses, in one of which he resided, he was compelled to sacrifice to his necessities in his old age.

During the last few years of his life, Mr. Walker obtained an annuity from the Medical Benevolent Fund, and this benefit, it was hoped, might be extended after his death to his widow, but the low condition of the fund would not admit of so desirable an object. Mrs. Walker and her six daughters, of whom two are constant invalids, one being epileptic and the other lame, are in a state of destitution, and this appeal is made to the Medical Profession imploring its assistance.

Mrs. Walker's son, having a numerous family, is not in a position any longer to continue aid.

It is desired to raise a fund, if possible, to afford some sort of maintenance for the widow and those of her daughters who are incapacitated for employment, and to enable the rest to obtain suitable situations, or start them in some light avocation.

References kindly permitted to T. Bryant, Esq., 2, Finsbury-square, London, E.C., F.R.C.S., Assistant-Surgeon to Guy's Hospital; H. Osborne, Esq., M.D., 1, Church-row, Islington; and W. Dix, Esq., Surgeon, Long Buckby, near Daventry, Northamptonshire. And subscriptions will be received by the publisher of the *Medical Times and Gazette*, 11, New Burlington-street, London.

THE MEDICAL DEPARTMENTS OF THE PUBLIC SERVICES.

WE offer no apology for reproducing the following very telling letter, which appeared in the *Times* of August 1:—

To the Editor of the Times.

Sir,—The Indian service has its own special complaint—viz., that it was denied the advantage of an income increasing solely by length of service, independently of advance in rank; and, when on leave, kept on the old Company rates of "furlough pay," much lower than that drawn by Queen's officers at home. It is but just to say that Sir C. Wood's bill proposed to do full justice in these matters; but the great grievance of the whole Medical service is that the officers are denied any virtual rank

whatever (in violation of the Queen's Warrant express provisions), and consequently bullied and insulted without any redress. The whole military body, from the Duke downwards, seems to have unanimously resented General Peel's attempt in 1858 to elevate the social military status of the department, and has thereby, as you justly remark, evinced a singular degree of suicidal shortsightedness, preferring to entrust themselves to inferiorly qualified doctors, sooner than purchase first-rate skilled attendance on the terms of a perfect social equality with themselves. This is the old jealousy of "having the regiment commanded by the Surgeon," which has so often led commanding officers of all grades to ignore the recommendations of the department, and if you will only let England read in your columns the revelations of Sir John Lawrence's Sanitary Commission, as to the author of the murder of 1,200 soldiers by cholera lately at Lahore, just published (from the *Friend of India*) in last *Homeward Mail*, you will do the army one of the greatest services ever rendered to it even by *The Times*. On less unquestionable authority people here would never believe the astounding facts now officially verified. But to my subject. Clause 17 of General Peel's warrant diffused universal contentment throughout the Profession by distinctly providing that, with the exception of any claims to military command, and the presidency of courts-martial, all question of the rank, precedence, pay, allowance, quarters, etc., of Medical and other officers, should be determined agreeably to the dates of their commissions, thus placing gentlemen of both branches on equal footing.

The parties who had to give effect to this clause set at once to work either to have it revoked, or to ignore it by passive resistance, leaving to the doctor the choice either of submission with a quiet life, or of appeal with the character of a malcontent, and the certainty of an adverse decision wherever it was possible to "dodge" him. To prevent the Surgeon getting field officers' quarters, there being only three per regiment, he was made perpetual junior major. That failing, an order was issued that he must occupy any quarters specially told off as "Medical;" so now a little paint over the door can put him into any doghole. He was declared not entitled to appear mounted on duty, though ranking and dressed as major or lieutenant-colonel. Hence he can be made to tramp on foot through the mud when a regiment marches out for its ten mile exercise in winter, while his juniors ride comfortably beside him. At regimental banquets to great folks the Surgeon-major as lieutenant-colonel, claimed to occupy the vice-chair as next in rank to whoever might command. This was refused, appealed, and decided in favour of a captain. The same spirit, or worse, prevails in the navy. A ship has just been docked in the Mediterranean. All the "combatants" of the wardroom down to the lieutenant of marines, are allotted comfortable cabins on the main deck of the hulk. The Surgeon, senior to them all, relatively, is ordered down below the waterline to a dark hole full of bugs and cockroaches. Combatant officers in the army when sick get leave, even for years, on a Board's certificate. Two officers in my regiment got one three, and the other over two years. If unable to rejoin finally they go on half-pay, it may be for years, and are allowed to return to active employment as a matter of course when it suits them and a vacancy offers. Medical officers get hardly any leave. I got four months only, coming home sick, after eighteen years' consecutive service in the tropics. If seriously ill, one year's half-pay may be got by a Board. If, when that expires, the invalid is not reported fit for any duty, even Hongkong, he is forced to accept permanent half-pay, and saddled on the country for life. Officers having completed twenty-five years' service are often ordered to the worst tropical stations, no matter how long they have served, or what they have already suffered in such climates. If they object, permanent half-pay is their lot; and at 55, no matter how effective or ready for any climate, they are compelled to retire, if not by that time Deputy-Inspector, a step which now is made to depend on what is called "merit," a term the Premier recently ably defined. These are, I think, real grievances, not trifles; and should you deem them worthy of notice, I should be happy to point out other causes for the present discreditable fix, and how it could be effectually remedied. I enclose my card, by which you will see that I am

AN OLD HAND.

Cox's Conservatoria.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—What is the active ingredient of the ointment called "Cox's Conservatoria?" It is a quack remedy recommended "for cutaneous affections." Whatever its merits may be in other cases, it is certainly most efficacious in healing sore nipples. The only place in London where it used to be procurable was at the non-Medical establishment of Messrs. Howell and James (!), but it is no longer to be got there.

July 30. I am, &c. Q.

The Griffin Testimonial Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following subscriptions have been further received on behalf of the above fund:—

H. Olivey, Esq., Taunton, 5s.; C. H. C., 2s. 6d.; R. M., 1s.; Dr. Hartshorne, Madeley, £1 1s.; Messrs. Hovell and Kingsford, Clapton, £1 1s.; Messrs. Bush and Parsons, Frome, £1; Thomas Hewlett, Esq., Harrow, £1 1s. Amount previously announced, £43 11s. 6d. Received at the *Lancet* office, £2 18s. I am, &c.

ROBERT FOWLER, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, August 3.

General Practitioners under False Pretences.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Every number of the *Medical Times and Gazette* and the *Lancet* abounds with letters from men who hold the M.R.C.S. and L.S.A. diplomas, who are longing to dub themselves Licentiates of the Royal College of Physicians. These men seem to me anxious to assume a title for which they have not studied, and which they are very often incapable of obtaining by fair examination. They crave some new scheme for entrance to the College of Physicians on easy terms, generally by a payment and a sham examination.

Is it not humiliating to us as a body of men to find so many in our ranks yearning for new distinctions, evermore anxious to seem before the world what they are not? Is it not enough to have hundreds of men who have taken St. Andrew's and Aberdeen degrees which we properly hold very cheap? and can we forget that we have already also many scores of men who have taken licences of the English and the Edinburgh Colleges of Physicians possessing little qualifications beyond the possession of enough money to purchase the so-called honour during these years of grace? Can we not look around us and see right and left of us numbers of men holding these diplomas and licences who are ill-educated pretenders, who are not the average, who are not the best qualified among us? Has not the possession of such degrees raised their ownership to a by-word among us? and shall we not raise a protest against this new attempt at assumption of titles and degrees which must come to have no value?

It would be an indication of a far healthier Professional *morale* were we as a body to begin to characterise this and similar movements as unworthy of a liberal Profession. The lawyers would soon dispose of a pretension on the part of solicitors to dub themselves as barristers, and the clergy would scorn to misrepresent their academical attainments, and shall we act otherwise?

Let us who have taken our diplomas apply ourselves to our honest work, cultivating our Medical science and art as we daily earn our bread like honest men. Let those who are younger in years take the best possible degrees. And let us agree to call those the puppies of our Profession who seek to acquire at a cheap rate honours and degrees which are intended only for advertisements of personal pretensions, and which cannot be desired by them as the badge of well-merited academic labour.

I am, &c.

Colchester, August 1. DAVID P. MORRIS, M.R.C.S.E. and L.S.A.

P.S.—In my own neighbourhood the best men have the best practices. The public is a good judge of Professional ability, and does not understand titles.

COMMUNICATIONS have been received from—

Mr. W. CARR; Dr. R. FOWLER; Mr. WILLIAM BIRD; Dr. GREENHALGH; YOLANTE; Mr. S. P. MORRIS; Dr. R. DUNDAS THOMSON; NEMO SIBI VIVAT; Mr. T. OSBORNE WALKER; APOTHECARIES' HALL; UNIVERSITY OF LONDON; Dr. FAIR; F. K. PARKINSON, Esq.; Mr. DONNELLY; J. YOUNG, Esq.; Q.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 30, 1864.

BIRTHS.

Births of Boys, 1011; Girls, 940; Total, 1951.
Average of 10 corresponding weeks, 1854-63, 1690·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	848	759	1607
Average of the ten years 1854-63	613·3	570·6	1183·9
Average corrected to increased population..	..	..	1302
Deaths of people above 90	..	1	1

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa
West ..	463,388	1	8	18	1	6	8	45
North ..	618,210	5	6	12	2	7	19	71
Central ..	378,058	2	17	16	1	2	12	34
East ..	571,158	3	43	7	..	10	23	64
South ..	773,175	1	5	10	1	14	23	60
Total ..	2,803,989	12	79	63	5	39	85	274

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·782 in.
Mean temperature	63·6
Highest point of thermometer	82·2
Lowest point of thermometer	47·7
Mean dew-point temperature	53·1
General direction of wind	S.W.
Whole amount of rain in the week	0·13 in.

APPOINTMENTS FOR THE WEEK.

August 6. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

8. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

9. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

10. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

11. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

12. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

ORIGINAL COMMUNICATIONS.

AMPUTATION AT THE HIP-JOINT.

By J. FAYRER, M.D.,
Surgeon Medical College Hospital, Calcutta.

Amputations at the hip-joint are so rare, that each case, successful or unsuccessful, should be recorded. I have therefore given the following, somewhat in detail, as it presents many points of interest.

As far as I can ascertain, it is the second successful case recorded in India. The first of which I can find any notice is that related in the *Lancet*, vol. i., p. 411, of 1850, by Mr. Wigstrom, of the 14th Light Dragoons, who operated, at Lahore, successfully, by antero-posterior flaps, in November, 1849, on a patient who was suffering from disease of the femur and profuse suppuration extending nearly to the hips.

In February, 1853, I also operated on a case of gun-shot wound of the head and neck of the femur, and, though death ensued, yet, as far as the operation was concerned, it may fairly be recorded as successful, as the patient died of tetanus a month after the amputation, when the wound was all but healed.

The case I now record is interesting, not only for its own sake, as an amputation of the hip-joint, but because it is a secondary amputation following one of the thigh, and performed when the patient was very low, suffering from clear indications of blood contamination, the result of a disease—osteo-myelitis—which is unfortunately frequent here after section of the long bones, and is the cause of many unsuccessful amputations.

I have noticed this subject more at length in a communication to the *Indian Annals*, but I may here remark that the present case is a good illustration of this disease, the constitutional and local symptoms it gives rise to, and that it clearly demonstrates the advantage of amputation at, or about, the next joint to the bone affected, provided the operation be performed before the systemic poisoning have gone too far.

I regard the details of the first part of this case as so interesting, in a Surgical and pathological point of view, that I have given them *in extenso*, though, as a general rule, such prolixity is objectionable. It is also to be remarked that the operation was performed, and the recovery occurred, at a very hot season of the year, the temperature ranging from 86° to 104°, cholera and other disease being very prevalent at the time.

Case.—Shekh Asghur, aged 16 years, a slight and somewhat delicate-looking lad, a carriage-driver by trade, accustomed to the use of six to eight ounces of Bazaar spirit daily, thin and sallow complexion, with cataract in the left eye, was admitted into the first Surgeon's ward of the Medical College Hospital, Calcutta, on the night of April 10, 1864, suffering from injuries caused by a fall from a horse, which trampled on and kicked him after he fell. He had a wound on the chin, slightly exposing the bone, one on the lip, and some smaller abrasions on other parts of the body. The most severe injury was in the inner aspect of the right knee-joint, the integument being torn and bruised, and the muscles and tendinous structures exposed to the extent of $3\frac{1}{2}$ by $2\frac{1}{2}$ inches. The joint injured, but not apparently opened, though it appeared probable that the bruised tissues would slough and open it. He had a good deal of pain, and some serous discharge. Ordered cold applications, and perfect rest of the limb. The minor wounds were also dressed.

April 12.—The joint was carefully examined, and through the bruised and sloughy tissues the joint was felt, the point of the finger passing into it. The inner condyle of the femur was roughened. Fluid was collecting in the joint. There was no pain, but the pulse was quick. In consultation with Professor Partridge, I decided on amputation. At 9 a.m., I removed the limb under chloroform by modified circular amputation at the lower third of the thigh. All bleeding points having been secured, the flaps were brought together with metal sutures. I observed that the muscles at the posterior aspect of the thigh had a bruised and discoloured appearance when cut.

13th.—Is feverish; pulse 120; no hæmorrhage; tongue moist; cold applications; milk and sago diet.

14th.—No fever; posterior part of the stump is gangrenous to a slight extent, corresponding to the discoloration of the muscles observed during the amputation.

15th.—The sutures have given way, and the interior of the stump is exposed. It is somewhat sloughy in appearance, the end of the bone is denuded of periosteum and necrosed; the medulla looks dark. I observed during the amputation that the periosteum and the bone were both healthy, and that the membrane adhered closely to the bone at the line of division. Most of the ligatures on the smaller vessels came away to-day. He had slight fever yesterday evening. Pulse 100. Ordered nutritious diet and port wine; wash the stump with a weak solution of chloride of zinc.

16th.—Pulse 100; tongue clean; had no fever yesterday. Took his food well, stump cleaning; gangrene not extending.

17th.—Pulse 100; stump cleaning; takes his food fairly; bowels loose; continue all as yesterday.

18th.—Pulse 100; tongue clean; bowels regular; stump cleaning; a considerable portion of the bone, especially one side of it, denuded of periosteum. The state of the medulla is not discernible, the end is discoloured.

19th.—Pulse a little over 100; soft parts of the stump look healthy; the sloughs have separated (they were very superficial); ligatures have all come away. On one side the periosteum is adherent almost to the end of the bone, on the other it is denuded for more than two inches; the bone is dry and I fear dead. Passed a long probe into the medulla, it entered four inches deep into dead and putrid tissue; I fear the shaft is diseased throughout; osteo-myelitis from end to end. His system is not yet much affected; no diarrhœa; tongue clean; appetite good; pulse 100 to 108.

20th.—Pulse 100; has a peculiar thrill. Stump looks clean and healthy, with the dry and half dead bone protruding from the centre. Has taken his food well. Continue all as usual.

21st.—Soft parts red and granulating; discharging healthy pus; one side of the bone covered with granulations, the other bare and dead. A bullet probe passes fully ten inches down the medulla in dead fœtid matter. At that depth it seems to be sensitive; it must be close to the epiphysis. There is a chance that nature may limit the mischief there; but can so large a mass of bone be thrown off? The alternative is death or amputation at the hip. Pulse this morning is 104; tongue clean; bowels regular; takes his food well. On the whole he does not look so badly, but there is a nasty thrill in the pulse, which is exciteable and quickens easily.

22nd.—Pulse has risen to 120; skin heated in evening. Continue all as usual.

23rd.—Pulse this morning was 130, very excitable, quickens to 160, and falls again, with a peculiar thrill. He has had diarrhœa since yesterday, and pyrexia in the evening. The House-Surgeon gave him astringents in addition to the port wine.

24th.—Pulse 140 this morning, and of the same character as yesterday. A probe passes down to the head of the bone, and is felt there. He is feverish, tongue moist, but the papillæ are becoming obliterated. Diarrhœa continues, and there is general muscular tremor. Dry sonorous râles in the chest with cough, but no hepatic or abdominal tenderness.

In consultation with Drs. Chevers and Partridge, I determined to amputate either through the trochanters or at the hip-joint, to be determined when the bone was exposed and its condition examined.

The operation was performed at 9 a.m., under chloroform, administered by Mr. Hayes. The knife was entered a little above and in front of the great trochanter; it emerged at the root of the scrotum. The flap being raised, the femoral artery was tied before the posterior flap was cut. On dividing the bone at the great trochanter drops of pus oozed out of its cancellated tissue. I therefore seized it with the iron forceps, and dissected it out without loss of time. The acetabulum was healthy. Tied all bleeding points, venous and arterial. The loss of blood was very small, less than eight ounces. His pulse, which before the operation was above 150, was very little weaker after it was over. Gave him stimulants and applied hot bottles.

In operating I had the able and kind assistance of my friends, Professor Partridge and Chevers, and also of my House-Surgeon, Baboo Money Lall Dutt.

24th, 3·30 p.m.—The House-Surgeon reports that there is no bleeding; that the pulse is 132; tongue moist; has taken milk and sago, beef tea, and wine; has no fever; respiration easy; says he feels better.

25th, 8 a.m.—He has had only one loose stool since the operation; no hæmorrhage; pulse 160; skin hot, but moist; thermometer in axilla 106; tongue moist and clean, tending to glazy condition; no hepatic tenderness; bronchial dry râles on either side of chest; pleuritic friction in right upper chest;

he is too weak to bear examination on the back. He has had beef tea and brandy (six ounces) since yesterday. Continue this treatment.

26th, 8 a.m.—Pulse 132 to 140; skin cool and moist; thermometer in axilla, 102; tongue clean, glazy, dry in the centre; has no pain; bowels moved once yesterday; has taken his food well; is cheerful and in good spirits; can smoke his hookah. The stump looks well; a dark, thin discharge from the outer corner of it; from the rest of the stump, healthy, well-formed pus.

27th, 8 p.m.—Yesterday evening as on other evenings. The pulse has quickened to 161; the heat of skin increased. This morning his pulse is 130 to 140; spirits good; bowels regular; discharge improving.

28th.—Pulse 140; thermometer in axilla, 102; skin moist; bronchial râles still heard; slight moisture in upper right chest; stump looks well. One ligature came away to-day. Injected the stump with a weak solution of chloride of zinc.

It is not necessary to continue the details of daily report. The pulse gradually came down; the temperature subsided until it stood steadily at 98°; the thoracic sounds became natural; the ligatures came away—the femoral, the last, on May 2, and the wound gradually cicatrised, leaving him with a well-formed stump. He is now (June 5) in excellent health, gets about the wards on his crutches, and is rapidly gaining flesh under the influence of cod-liver oil and full diet. There is still a small sinus at the outer commissure of the stump from which, on pressure, a few drops of semi-purulent discharge exude; but this is contracting, and in a few days will probably close. The details of this case in full will be published in the *Indian Annals of Medical Science*.

I enclose a photograph of the patient, which, perhaps, may appear with the case.

THE TREATMENT OF LACERATION OF THE PERINÆUM INTO THE RECTUM DURING PARTURITION.

By T. ROBINSON, M.D., M.R.C.S.

In the *Medical Times and Gazette*, August, 1861, I drew attention to the successful treatment of severe laceration of the perinæum and rectum by simple means, adapted to retain the parts in undisturbed approximation and allow union by first intention. Subjoined is another instance of the success of this plan. In this case the rectum and vagina were made one large opening, the rent, two days after the accident, being several inches in length.

The subject was a primipara, aged 30 years, with a vagina so small that the conjugal rite could not be consummated until artificial means to dilate it had been resorted to. At the full period of gestation labour came on, and after twenty hours of steady natural uterine action a large dead child was born. The vagina preserved its integrity during the passage of the head, which was very soft and pliable, and of low temperature. Death had occurred probably a few days before. The shoulders were delayed some time on the fourchette, and at length suddenly expelled by a violent uterine effort, laying open the vagina into the rectum to a most formidable extent. On the second day, observing that fæcal matter had passed through this recto-vaginal opening, I cleared out the intestines by an aperient, and afterwards gave opium, and adopted a limited diet containing very little solid matter—so that the descent of fæces into the rectum might be retarded,—and having washed the parts free from all excrementitious matter, I bound the knees together, and desired the patient strictly to avoid all movement of the lower half of the person, to maintain the parts undisturbed. This plan was pursued during eight days, when a general union was apparent; an enema to unload the bowel was given, and the patient allowed to get out of bed. From this time she might be considered recovered; the parts have continued sound and whole to the present date—a period of two months.

That laceration of perineum, short of implicating the rectum, is a common accident, and may be left entirely to nature with safety, is an axiom in midwifery, substantiated by daily experience; and I wish to impress that very extensive injuries opening up the rectum may be cured by adopting means to prevent the torn surfaces being disturbed, and to induce healing by first intention. The means for attaining this object are, first, keeping the patient for several days on food containing very little solid matter, which in its descent into the rectum would disturb healing; secondly, opium daily to constipate the bowels; thirdly, by preventing movement of the lower limbs as much as possible. At first the knees should be bound together. Patients become very weary of this after two or three days, and it may be discontinued, as was done in the above and other cases I have had—it being forcibly impressed on them that they must not separate the thighs,—cautious flexion is not hurtful.

Should these means fail, we can then have recourse to "paring and stitching," with the usual chance of success.

Lamb's Conduit-street, July 4.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

LOSS OF SPEECH, WITH HEMIPLEGIA ON THE LEFT SIDE—VALVULAR DISEASE—EPILEPTIFORM SEIZURES AFFECTING THE SIDE PARALYSED.

(Under the care of Dr. HUGHLINGS JACKSON.)

The following is the only case I have ever seen of hemiplegia on the *left* side with loss of speech. Indeed, when I saw this patient he could talk nearly as well as ever, but it is perfectly clear that speech was lost after the attack. Mr. Corner, under whose care the patient was at first, kindly sent him to me, and gave me much of the following information:—

I first saw the patient on March 19, 1864. He was a healthy-looking man, 49 years of age. On February 5, 1863, at 11 a.m., he complained of severe headache, and left work. At 7 p.m., after a walk, he sat down, and became speechless, and, by the time he was got to bed, lost the use of the left arm and leg. He did not speak at all for six weeks, except to say "yes" and "no," and then asked what time it was. He was not insensible, but simply unable to talk. He put out his tongue when Mr. Corner asked him. For two months there was considerable paralysis of the arm and leg, and he never got well enough to go to work; on July 19, the same year, he had a second attack, but this was not followed by any notable paralysis. It was a convulsive seizure, and affected but one side—the one previously paralysed. It began in the left side of the tongue, and next the arm and leg were convulsed, and he became insensible. He has had four attacks since—viz., August 27, October 17, November 26, January 10, and again in July of this year. They all began in the same way—viz., by an "aura" in the tongue on the left side, and the left side of the body only was convulsed in each.

It may look like special pleading, but I must record the fact that in the first attack the face was, Mr. Corner tells me, paralysed on the right side, and the limbs on the left, so that probably the left side of the brain was affected as well as the right.

This patient had, when I saw him, what appeared at first to be simply difficulty of articulation, but on referring to Mr. Corner's account, and on again questioning his wife, there is the clearest evidence that he was "speechless" for some time. On his first visit he could put out his tongue, and said he could eat and swallow very well. Then the difficulty in talking was not a thickness, but rather a clumsiness, a kind of talking which is found in patients recovering from loss of the faculty of articulate language—the Aphemia of Broca.

This case has great interest in several ways,—first, as being an exceptional case; secondly, as being complicated with unilateral epileptiform seizures; and thirdly, as presenting valvular lesion. There was a loud diastolic murmur, heard best below the ensiform cartilage.

One chief point of interest is that there were periodical convulsive seizures, not distinguishable from what would, by most Medical men, be called epilepsy. These affected the *left* side, and were no doubt the result of softening from imperfect supply of blood to the brain in the region of the *right* middle cerebral artery. I have seen several cases of epilepsy of this kind with valvular disease. In each there was more or less hemiplegia, and in those in which the right side was affected more or less defect of speech. Cases of unilateral epileptiform convulsions coming on suddenly in very healthy-looking young men suggest the inquiry whether some quasi-accidental cause, like embolus, be not more frequently the origin of epilepsy than is generally supposed. This is the more likely when it can be pointed out that the muscles first affected by spasm in those cases are the same as are paralysed in plugging of the middle cerebral artery; and again, that the hemiplegia which sometimes follows the unilateral convulsions (epileptic hemiplegia) is also of the same kind as that which follows plugging. In the next case the patient was not young, and had no valvular disease, yet the fact that she had temporary aphemia with the hemiplegia is enough to render it certain that she had disease in the range of the left middle cerebral artery, even if the vessel itself were not primarily diseased.

Such cases seem to me to prove beyond doubt the truth of Dr. Radcliffe's views, that convulsions depend on enfeebled power of the nervous centres, or diminution of blood supply, rather than on increased irritability or on congestion. Now and then convulsions usher in hemiplegia from embolism. Here it is inconceivable that the condition of the motor tract, the corpus striatum, can be any other than one of anæmia. It may be said that the medulla oblongata and not the corpus striatum, is concerned in convulsion. Whatever the medulla oblongata may have to do in some links of the seizure, it is a fact that unilateral convulsions do follow from affections of the corpus striatum, as in the instance of embolism, and that they do follow disease on the surface of the hemisphere. The medulla oblongata may be diseased as well, but post-mortem examination shows that in unilateral convulsions the middle cerebral artery itself, or of some part of the brain in its range, is diseased too.

HOSPITAL FOR EPILEPSY AND PARALYSIS.

EPILEPTIC APHEMIA WITH EPILEPTIC SEIZURES ON THE RIGHT SIDE.

(Under the care of Dr. HUGHLINGS JACKSON.)

In the following case there is no evidence of heart disease, and the patient seems very healthy. We cannot be certain that she had loss of language, but it is clear that she had at least loss of articulate language—Aphemia. In a foot-note to one of his clinical lectures, Dr. Todd writes, "There is a peculiar class of cases of epileptic hemiplegia in which the exciting cause of the epileptic fit at the same time damages or greatly injures voluntary power and speech." In some of his cases of this kind the hemiplegia was on the left side. In the well-known case of Beglin it was on the right, and speech was lost (Beale's edition, p. 851). At the autopsy on that case there was found disease on the surface of the left side of the brain. Such disease, though a widely different thing to embolism, I believe acts to the same end in producing epileptiform seizures, by inducing, by reflex action, spasm of the branches of the artery (the middle cerebral) in which it lies. This is a mere hypothesis, but it is, at all events, a smaller one than such theories of reflex irritation as are generally received; such, for instance, as that worms or teething produce universal convulsions; and it gives the theory of reflex irritation, at least, an anatomical framework to say that disease in the range of a cerebral artery produces spasm of the branches of that arterial system. The view generally held supposes that an irritation may produce paralysis or spasm in parts which have no special anatomical connexion or physiological relationship. If my hypothesis be correct, the brain substance would be temporarily ill-nourished by spasm of the vessel, just as it would permanently in the case of embolism by plugging of the arterial trunk. In the first, then, we should have unilateral convulsions, and in the second unilateral paralysis—in one hemiplegic epilepsy, in the other what, if, as is now and then the case, it were preceded by convulsions, we should call epileptic hemiplegia. Clinical observation seems to me to demonstrate beyond a doubt that convulsion is closely allied to paralysis. We constantly find paralysis following convulsions, and, what is more striking, we as often find convulsions beginning in parts already paralysed.

D. T., aged 54. One day, three years ago, she was going down ———-street, and suddenly lost her speech, and felt "numb" on the right side. She then fell down, became insensible, and was, she was told, convulsed on the right side. Next day she felt well, but went to a Hospital because she was alarmed. She, however, never fairly regained her speech, but had only a little difficulty in "pronouncing her words," and did not, she says, use wrong words.

In three or four months afterwards she had another fit. This began in the arm and leg as "a throbbing," and then she lost her speech.

She has had seven or eight fits since. They always affect the right side, she always loses speech, and then becomes insensible for a few hours. After the last she could not speak for several hours.

I need scarcely say that I ascertained that her speech was lost in all these attacks whilst she was conscious.

The close resemblance of the temporary symptoms in the epileptiform seizure in this case to the permanent ones in other cases, in which there is undoubtedly occlusion of the left middle cerebral artery, goes, I think, to demonstrate that there was in the seizures temporary disorder (spasm of vessels?) in the circulation in that arterial system only. Further, the cases I have related, taken together, illustrate the great importance of Dr. Radcliffe's views on epilepsy generally. They show that we have not unfrequently to treat softening of the brain, rather than epilepsy; to succour feeble nervous power, and not to combat a paroxysm; and that temporary violence is not a sign of general vigour.

A patient may be in rude health, and yet *part* of his nervous system may be below par from some quasi-accidental cause, as embolism, or local injury to the side of the skull, or syphilitic deposit in the pia-mater on the surface of the hemisphere. In such cases, then, part of the nervous system only being affected, the convulsions also are partial. The disease being limited to one side, the epileptiform seizure also affects one (the opposite) side only. For instance, there being (as I have suggested is most probable in the first case) partial occlusion of the *right* middle cerebral artery, and consequently impaired nutrition in the *part* (corpus striatum) it supplies, we have in such cases convulsions, followed by more or less hemiplegia (from "numbness" to total paralysis) of part of the *left* side of the face, of the *left* arm, and *left* leg. It is but a difference of degree when complete hemiplegia at once follows complete occlusion of the artery. And these particular instances seem to point to a rational treatment in the same way as Dr. Radcliffe's general principles do. Without denying the great value of certain kinds of empirical treatment in epilepsy—as, for instance, the bromide of potassium, zinc, belladonna, etc.—all will agree that we ought to find our way out when possible to a more rational system of therapeutics. It seems, then, reasonable to suppose that when the nutrition of a *part* of the brain is below par we should give as drugs and food such substances as are known to contain constituents of nervous tissue. Then, the blood being enriched, the part below par would get its nutrient supply more easily. Indeed, some of the patients who have these unilateral seizures are in such robust health that it seems like a practical joke to give general tonics like iron, quinine, etc. But in a utilitarian profession like ours we are obliged to look to results. Dr. Radcliffe, then, finds that hypophosphites and cod-liver oil are most satisfactory agents in the treatment of epilepsy, so that they may be given on the broad principle that they nourish nervous tissue, or on the narrower theory that they do good in the particular disease epilepsy.

UNILATERAL EPILEPTIFORM SEIZURES BEGINNING BY A DISAGREEABLE SMELL.

It is well known that sometimes, although rarely, epileptiform seizures begin by an affection of smell. The following case (quoted from the *Medical Mirror*) is mentioned by M. Delasiauve:—

"A case of this kind has recently been communicated to me by a colleague. His patient, 63 years of age, has been subject since 1856 to epileptiform attacks, without any premonitory scream or frothing at the mouth. When he is attacked in the night, which is now very frequently the case, the morbid sensation is naturally unnoticed; but if he happens to be awake the fit is constantly preceded by an excessively offensive odour, which is soon followed by trembling of the limbs on the right side of the body, and next by total loss of sensibility. After the shaking has gone off, the sensibility rapidly returns, and there is no memory of what has passed."

In this case, smell having been altered, the olfactory lobes must have been affected in some way; and as there were convulsions on the right side of the body, the region affected in the paroxysms must have been on the left side of the brain. Further, as the middle cerebral artery supplies the roots of the olfactory lobe and the corpus striatum, it is probable that the circulation in this vessel was disordered in the paroxysm.

Sometimes we may draw a complete parallel betwixt the symptoms of a case of epilepsy and those from plugging of this artery. The case of D. T. just related is one. But in some cases of plugging of the left middle cerebral artery there is another symptom—(1) loss of smell as well as paralysis of the (2) right arm and leg, and (3) defect of speech. I have had under my care a boy, whose fits always begin by a (1) disagreeable smell, he is then insensible, convulsed on the (2) *right* side, and when he comes to himself he is unable to (3) talk intelligibly for half an hour. A case of embolism, in which (1) smell, (2) power on the right side, and (3) speech were lost, has been recorded by Dr. Fletcher, of Manchester (*British Medical Journal*, April 30); and I have now under my care several cases in which these three defects exist together. In one of them there is valvular disease; and in that case at least it is probable that the left middle cerebral artery is plugged. It is quite clear that the boy's defects are analogous, except that they are slighter and very transient. Instead of (1) loss of smell, he has temporary disorder of that function; instead of (2) paralysis of the right arm and leg, he has convulsive movements of those limbs; instead of (3) loss of speech, he has defect of speech. When, to repeat anatomical details, we further consider that the left middle cerebral artery supplies (1) the roots of the olfactory bulb, (2) the corpus striatum, and (3) the hemispheres, we can readily understand how the three strangely-associated symptoms should occur together in plugging of that vessel; and I submit that temporary spasm of the vessels in that arterial region would account for the three temporary symptoms in epileptiform seizures. Although the (1) olfactory bulb, the (2) motor centre for the arm and leg, and (3) the seat of the faculty of language, have no relationship of function, yet, being bound together by an artery, they have a relation by community of nutrition; and hence we understand how the three very often suffer together in disease. I need scarcely remark that the theory of contraction of the blood-vessels in epilepsy is the established theory of the day. My view is only different in limiting it in certain cases to certain arterial regions of the brain.

A Prescription Treated as a Letter.—A provincial Practitioner in France relates, in the *Union Médicale*, that having been called to a patient suffering from acute rheumatism, he wrote a prescription and transmitted it to the *Pharmacien*, who lives at a distance from the patient, with directions to forward the medicines by rail early in the morning. This was done, but at the railway station the officers of the *octroi*, or some such officials, the like of which happily do not infest the stations of this country, opened the parcel on the plea that the prescription, which was returned with the medicines, and which contained the directions for their employment, was a letter sent in contravention to the rules of the post. It was therefore forwarded to Paris for the consideration of the authorities there, while the unfortunate patient, racked with pain, had to wait until the evening for his medicines, and then, finding the prescription containing the directions absent, was obliged to send next morning several miles to the doctor.

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Medical Times and Gazette.

SATURDAY, AUGUST 13.

PHYSIC AFLOAT.

It is high time that public attention should be directed to the position of the Medical officers of the Navy. We by no means wish to divide or weaken the interest which is springing up in various quarters on the subject of Army Medical Reform. But we are bound to recognise and assert the fact that the condition of Army Medical officers, bad as it is, is not worse in many respects than that of Medical men in the sister service. Some years back—thanks, in a great measure, to the efforts of this journal—the position of the Naval Assistant-Surgeon was brought before Parliament and the public, and some concessions in their favour were wrung from a reluctant Admiralty. Since that time a Royal Warrant, with somewhat similar provisions to the famous Army Warrant of 1858, has been promulgated for the Navy; but Royal Warrants for the Medical Profession appear to be made in order to exercise the ingenuity of the Horse Guards and Admiralty in evading them; and if the authorities of the latter have not exhibited the same amount of skill and sagacity in the matter as those of the former, the facts show at least a corresponding desire to lower the position of the Medical officer. The present state of things is ably recounted in a letter from an M.D., R.N., which we publish in another part of this journal. The writer shows that, according to the original Warrant, a Naval Surgeon ranked with a commander, but that now he is lowered to the rank of a lieutenant of eight years' standing. As in the case of the Army, the jealousy of the executive officers could not brook that the Surgeon or Physician should occupy an equal rank with themselves. A Staff-Surgeon of twenty-five years' service ranks, indeed, with a commander, but is always considered junior of the rank. In other words, the lieutenant of perhaps twenty-five or thirty directly he is promoted to the rank of commander takes precedence of the gray-haired Surgeon who, in the ordinary course of things, must be at least fifty. It will not be denied that the Medical Profession, as a rule, equal in birth and education the highest rank of officer afloat. A systematic plan, by which the Medical man is placed on an inferior level to those of his own age, is an injustice and a scandal, and Government will never succeed in attracting a high class of the Profession to the naval service as long as it is maintained.

But a subject of more importance even than relative rank is that of remuneration. Our correspondent shows that the pay of the various Medical ranks is miserably inferior to that of the other civil officers of the ship. The paymaster and the chaplain, who combines the office of naval instructor with his other functions, are far better remunerated than the Surgeon or Physician—£328 a-year full-pay seems to be the ultimatum of by far the greater number of naval Surgeons, whilst the paymaster, as a rule, receives £200 a-year more, and the chaplain, who is also a naval instructor, gets as much the first

year he enters the service. Again, in the matter of prize-money, faith has been unblushingly broken by Government with the Medical service. The naval warrant of 1859 provided that the Medical officers should receive an equal amount of prize-money with the officers with whom they rank. This, however, did not suit the views of the Admiralty, and they have decreed that in this respect the doctor should share and share alike with the boatswain, gunner, and carpenter! No doubt after a naval engagement the functions of the latter are called into requisition equally with those of the Surgeon. It would appear, therefore, that the Admiralty estimates at the same value the extra services of each.

The long-standing complaint as to the accommodation of Assistant-Surgeons is still practically unredressed. The Assistant-Surgeon always gets the worst cabin of any ward-room officer. Any one who knows what an officer's cabin is will acknowledge how difficult it must be even in the best of them to pursue any scientific work, but the young lieutenant of marines, whose highest intellectual effort is the perusal of the last new novel, takes precedence of the Assistant-Surgeon with his microscope and books.

Lastly, our correspondent calls attention to the enormous length of service obtained from the Medical officer before he can claim retirement. Sixty years of age is the time at which the Admiralty finds it can get no more out of the Doctor. The clergyman can retire when he is seven or eight and thirty, after fifteen years' service, on £254 a-year. He can then get some other clerical occupation, and pass the latter half of his life in all the comforts of an English home. The Medical man, on the contrary, must go on combatting disease in all its forms, under all climates, until he is long past any chance of obtaining professional employment on shore. In this one respect, the Army Medical officer is somewhat better off than the Naval.

The position of the Army and Naval Medical officers is a matter which most closely affects the interests of the Profession at home. The public estimation of Medical skill and character is influenced and reflected by the status of Government Medical officers. We thoroughly appreciate the proposal of one of our correspondents that a joint school and examining board should be instituted for both services. By all means let a due proportion of the very best results of Medical education and science be placed at the service of the country. But let the country show that it is alive to the benefits that the Profession can confer, and that it will adequately appreciate and reward them. The Medical Profession at home are a powerful body. In the present nearly balanced state of political parties, no Government, on the eve of a general election, would dream of setting at nought the just demands of such a body it organised and unanimous. Let each Professional man, before he gives his vote for any Member of Parliament at the coming election, obtain a pledge from that member that he will use his best endeavours and influence to redress the grievances of the Army and Naval Medical Services, and neither the Horse Guards nor the Admiralty will be able any longer to refuse them justice.

THE NEW REGULATIONS FOR THE INDIAN MEDICAL SERVICE.

We publish to-day Sir Charles Wood's new regulations for the Indian Army Medical Service. We frankly acknowledge that there are some portions of the scheme which are a substantial boon to the Indian Surgeon. The nominal pay of the Medical officers is increased, although, as we shall hereafter show, by the abolition of head-money and staff allowances, the benefit conferred by the Government under this very important head is by no means unmixed. Still more satisfactory points in the document are the proportionate increase of officers of the rank of Surgeon, the concessions made with regard to the period of leave allowed to count for attaining the rank of Surgeon, the increased rate of furlough pay, and the pensions granted to officers permitted to retire on account of wounds or ill health. In all these respects the Indian Medical officer has gained certain advantages, which, however, it should be observed, were *due* to him long since, had the Royal Warrant of 1859 been carried out in its integrity as was originally intended; so that whilst the Profession in India may rejoice at these concessions in its favour, it may feel that in gaining them it only obtains what has long since been theirs in justice.

Certain points, however, in the new scheme are open not only to objection, but condemnation, and to these we desire to draw attention.

1. *The Abolition of Head-Money.*—In ordinary times this might not have been so objectionable, but to have abolished head-money at this particular juncture throws considerable doubt on the disinterestedness of Government, at the same time that it inflicts an injustice on many Medical officers. In ordinary times the Medical establishment was only just sufficient to meet the requirements of the military and civil establishments; but it is now a well-established fact, supported by the statement of Sir Charles Wood himself, that the number of Medical officers is very much below the regulated standard. In the Madras Army List, published in December, 1862, there were thirty-two vacancies in the Assistant-Surgeons, and not one has since been added to the number, so there can be no doubt that the vacancies at this moment are even more numerous than what they were two years ago. The deficiency in numbers has hitherto been made up by giving two or more charges to individual Medical officers. One example will suffice. A Medical officer in charge of a civil station in the Interior has been drawing his full pay for the performance of his civil duties, gaol, Dispensary, etc. A native regiment is stationed at the same place, and the services of the Medical officer in charge being required elsewhere, he has been withdrawn, and the charge of the corps transferred to the Surgeon in charge of the civil station, who hitherto has drawn the regulated amount of head-money for the men and officers of the corps. This is now all to be done away with; the Medical officer is to have his regulated pay, and if half-a-dozen corps happen to fall under his charge, he gets no pay for his extra work, trouble, and expense. It is evident that with a decreased and still decreasing number of Medical officers, this sort of thing is likely often to occur, and thus the Government will save all the extra head-money, whilst the unfortunate Medical officer must be content to perform responsible and onerous duties without any extra remuneration of any kind. This is an injustice.

2. *The Retention of the Distinction of Half Batta and Full Batta.*—This is not only absurd, but unjust. For the information of such of our readers as may not be conversant with Indian military matters, we may mention that *full batta stations* are those which are situated above two hundred miles from, and *half batta stations* those which are under two hundred miles from, the large Presidency towns, viz., Calcutta, Madras, and Bombay respectively. On reference to the new scheme, it will be seen that the pay at full batta stations is much larger than at half batta stations. Now, if there be one place more than another at which the Medical officer is put to great expense, it is at the large Presidency towns, which are half batta stations. We have no hesitation in saying that an Assistant-Surgeon, especially if he be a married man with a family, could not subsist in Bombay, where everything is excessively dear, on his half batta pay; whereas at Belgaum station, where articles of all kinds are comparatively cheap, he gets extra pay, for the simple and absurd reason that it is above two hundred miles from Bombay. If there be one station more than another where full batta should be allowed it should be at the expensive Presidency towns. The *duties* of the Medical officer, whether at a full batta or half batta station are precisely identical, and the maintenance of a distinction of pay between the two is a manifest departure from justice. Full batta pay, as laid down in the new scheme, is not more than sufficient to maintain a Medical officer in

India, where articles of every kind have of late become greatly enhanced in price. This is the pay to which he is justly entitled, and the absurdity of half batta should be at once abolished.

3. *The Abolition of Staff Pay.*—Paragraph 16 of the new scheme is obscurely worded, but if it mean anything, it means that whilst present incumbents are to be left in possession of the staff allowances, officers succeeding to their appointments will come under the new system of consolidated pay of rank. Such a provision would be fatal to the scientific spirit of the Service. What Assistant-Surgeon, for example, would undertake the responsible post of chemical examiner to a whole presidency whilst he might draw a larger income for taking charge of a regiment of Sepoys at some station 200 miles distant from the expensive presidency towns? The same remark applies to the Professors at the Medical Colleges, the Superintendent of the Eye Infirmary, etc. No more effectual damper to zeal could be found than to abolish extra staff pay, and place all Assistant-Surgeons of a certain number of years' standing upon the same scale of pay, irrespective of the fact of their filling important posts, which demand more than ordinary talent and energy.

4. *Withholding from the Indian Medical Officer the Rates of Pension Granted to their Brethren in the Royal Service.*—By paragraph 14 it will be seen that, with one exception (retirement on account of ill-health), the old rules in the Indian Medical Service are to remain in force. The reason of this is obvious, for had the rates of retiring pensions which obtain in the Royal service been offered, a general exodus of all the older Indian Medical officers would have been the immediate result! Who can say that the services are on an equality, whilst the retiring Surgeons of the Royal service are entitled to so much higher retiring pensions than their equals of the Indian?

These remarks are made in no captious spirit of fault-finding. We fully acknowledge that, on the whole, Sir Charles Wood's regulations confer a benefit on the service. But we cannot be blind to the fact that they bear the impress of having been wrung from the Government under compulsion, and that as is usual under such circumstances, the authorities have withheld as much as they possibly could, and have granted no more than their pressing exigencies compelled them to yield.

THE WEEK.

REPORTING EXTRAORDINARY.

An incident in the proceedings of the British Medical Association created not a little amusement and surprise, at Cambridge, on Friday last. Before Dr. Humphry had delivered his address on Surgery, a telegram arrived stating that the address had been published by one of our contemporaries and had saluted a London audience almost in bed, while the pilgrims who had visited Cambridge from far and near, to catch the first sounds of every wise word, had to wait until late in the after part of the day ere a syllable could reach them. The circumstance has subjected the learned professor to much criticism, and to that worst of criticism—*ridicule;* for although it is true that, in the way of exceptional reporting, the speech from the throne is commonly in the press before it is delivered, yet even that important document is never published until the last word of it has passed the Royal lips. To be fair to Dr. Humphry, we must state that if the phenomenon of the publication of a delivered address before its delivery is not to be accounted for by differences in longitude between London and Cambridge, the execution of the feat must go to the credit of our over-energetic and scrupulous contemporary. We are informed by Dr. Humphry, in a communication held with one of ourselves, that the MS. of his lecture given to a reporter of our contemporary on Wednesday was recalled by him (Dr. Humphry) so soon as he had an intimation that the other Medical journals, one of which had the address in type, would not publish it until after it had been spoken, and that the hasty and imperfect copy that did appear was published without his sanction or consent. We, therefore, acquit him entirely of all desire to overreach his colleagues, and to obtain for his own work a precedence over the President and other officers of the Association. Half the pleasure of such a meeting as that at Cambridge would be lost if it were felt that, with so much that was fair above, there was an under-current of strategy on the part of individual members to appear first in print, if not in fame. Our contemporary, we think, in this matter has not acted with his usual cleverness. The reader who will compare his hastily-written report with the address published to-day in the *Medical Times and Gazette*, after receiving the careful and special correction of Dr. Humphry, will appreciate that to overreach is not necessarily to over-match, and that there is such a thing as being too knowing by half.

DRAINAGE OF KINGSTON.

We have never been idolators of the Metropolitan Board of Works, and have always expressed our misgivings as to their gigantic scheme for the drainage of London. Not the more than Cyclopean grandeur of those subterranean reservoirs, nor the finished beauty of the brickwork, nor the champagne luncheon so eagerly devoured by suburban vestrymen, can propitiate us. The scheme was decided on in a hurry—to get rid of an annoyance to the Houses of Parliament; and it shelved the main question at issue, without the pretence of solving it. That question is, what shall be the destination of the sewage of our population, and how shall it be dealt with under the condition of extreme dilution to which it is brought by the modern water-closet system? Modern science, in conformity with the ancient practice of the nations most skilled in extracting the largest produce from a scanty territory, urges the necessity of restoring the excreta to the earth, instead of casting them into our rivers; but the engineering interest has been too strong for the chemist and agriculturist. The constituents of the sewage of the 3,000,000 of Londoners, it was pretended, were dissipated, or so diluted as to be worthless; and so we are spending a couple of millions of money in pumping away this *mere water*, at a time when every church in England has been sending up prayers for rain. Some preliminary experiments on sewage showed also a deficiency of profit; and it was clearly enough proved that large quantities of sewage were required for small areas of land, and that it would not pay to distribute it too widely. Therefore, said the engineers, throw it away altogether. Just as if we expected any return from the Thames! However, the fiat had gone forth; London sewage must not offend the noses of Lords and Commons; so, instead of any deliberate attempt to utilise it, we cast it into the river. But, luckily or unluckily, the question, "What shall be done with the sewage?" won't be shelved in this way. We Londoners claim the privilege of befouling the Thames at Erith; but we make it a grievance that the people of Kingston should do the same! Why should they not? If the inhabitants of the largest, richest, and most scientific city in the world refuse to bestir themselves to use their sewage, how can they blame the denizens of a little country town for following their example? If the drinking water of London is polluted, why should the Kingstonians care? We can assure our readers that the sewage question, instead of being settled, is only just beginning in good earnest. Meanwhile there are some facts which it is well to lay to heart. Beef and mutton, milk and butter, are daily becoming scarcer and dearer. We can import corn from all the world, but not meat. As the Duke of Argyll said, we have never imported £3,000,000 worth of foreign stock, whilst we have imported £30,000,000 worth of foreign corn in a year. Professor Gamgee has shown, too, that we lose as much as we gain in the importation of foreign cattle, by the contagious diseases they bring with them. We *must* breed more beef at home; and this can only be done by feeding grass lands with the sewage which we now so wickedly cast away.

MORTALITY OF WATERING PLACES.

The Registrar-General has thrown an apple of discord amongst the watering places, by publishing a table of the mortality of the districts in which some of the chief of them are situate. He shows, for example, that during the three months ending June 30, 1864,—the three months during which, as is well known, sea-side places are not thronged with visitors as they are in July, August, and September—the mortality of Thanet, including Ramsgate and Margate, was at the rate of 20 per 1000 per annum; Hastings, 24; Eastbourne, 17; Brighton, 20; Worthing, 18; Yarmouth, 25; Weymouth, 21; Scarborough, 22; and Whitby, 23. Now these places are health resorts; people go there to live, and not to die; and it seems absurd that the inhabitants of London, where the average mortality was at the rate of 23·53 per 1000 per annum, and in some of the best parishes not more than 20, during those three months, should go for health to a place where the mortality is higher. Of course the "authorities" of the watering-places do not like this rigorous statistical test to be applied to themselves, and they besiege the *Times* newspaper with explanations, tending to show that any apparent excess of mortality is due to the deaths of strangers, who have been brought to these "health resorts," in the hope of getting relief for the very maladies which have proved fatal. This is very fair so far as it goes, but it does not go far enough. We fully grant that no inferences are fairly to be drawn from statistics in the *gross*; but then let authorities who demur to the Registrar-General's gross statistics, give us their own in detail. Suppose we begin at Margate and Hastings. Will the authorities tell us how many strangers have died in those towns of illnesses brought and not contracted there? Will they tell us the number of births for the last few years, and the number and causes of deaths under one year and under five? Will they tell us the number and causes of deaths of the adult population in their own homes? exclusive of all deaths in workhouses and hospitals? Will they tell us the diseases for which the indigenous poor seek relief at local dispensaries, or from the parochial surgeons? Will they tell us to what extent visitors are protected from breathing or otherwise imbibing the contents of sewers and cesspools? Lastly, will they add an account of the sources of their drinking water, and an analysis of that of some of the favourite pumps? There is nothing unreasonable in all this;—for it is done at least once a quarter in every London parish, by the Medical Officers of Health; and when these items are supplied, the public will be able to judge whether the *primâ facie* inferences from the Registrar-General's Report are right or wrong.

DANGERS OF A "HEADER" IN SHALLOW WATER.

We hear almost every year of some serious or even fatal accident at watering places arising from the dangerous habit of plunging head foremost into water that is too shallow. This should never be done unless the water is at least four or five feet deep. Surgical books are full of cases of broken vertebræ, but unluckily they are not known to the persons who need the caution. South, in his edition of Chelius, tells us of a sailor, 40 years of age, in good health, who jumped headlong from a ship into the sea to bathe, a sail being spread a few feet below the surface to receive the bathers and to protect them from the sharks. It is supposed that his head was violently thrown back on coming in contact with the water or sail, as he immediately became motionless. When got on deck, all the muscles of the limbs and trunk below the shoulders were observed to be paralysed, and respiration was performed by the diaphragm alone. The circulation and temperature were natural, and the senses perfect. In a few hours after the occurrence of the accident, vomiting commenced, and became more frequent till he died at the expiration of forty-eight hours. Upon examination, the fourth and fifth cervical vertebræ were found completely crushed and forced forwards on the spinal marrow, which was crushed and lacerated. This preparation is in St. Thomas's Museum. Another man threw himself into a river to bathe from a height of seven or eight feet, the water being only three feet deep. He came up to the surface and immediately fell back to the bottom. The bystanders observing he made no attempt to swim, drew him out and lifted him insensible upon the bank. He died in ten hours and a half after the accident, and after death it was found that the fifth cervical vertebra was broken across, and the two pieces were completely crushed in upon the spinal cord. So bathers beware of a "header" in shallow water. Plunge deep or not at all.

REVIEWS.

Wayside Weeds; or, Botanical Lessons for the Lanes and Hedgerows, with a Chapter on Classification. By Spencer Thomson, M.D., &c. With woodcuts. London: Groombridge. 1864. Pp. 212.

This book contains those elementary lessons in botany which a teacher would give his elder scholars during their country walks, and which any intelligent person can give himself. It is a small, clearly-written book, and takes up the commonest weeds, demonstrating their structure, and leading the pupil onwards to a glance at Classification, and other uses of a "Flora." One great stumbling-block to popular botanists is the number of complicated terms derived from Greek and Latin; and awkward are the attempts to patch up a set of phrases in our mother tongue to supersede them. But the names do not come through the fault of botanical professors; they arise from the existence of *things* which our senses show us to exist, and for which we must provide names. Instead of shirking the scientific terminology of botany, we would rather recommend it to be cultivated as a mental exercise, especially by the classical, commercial, and feminine parts of the community, and as a kind of introduction to the "scientific" mode of thinking and speaking, which alas! is a strange tongue to most clergymen, schoolmasters, classical scholars, men of business, literary men, and last, not least, women.

British and Foreign Spirits; their History, Manufacture, Properties, &c. By Charles Tovey. London: Whittaker and Co. 1864. 12 mo. Pp. 376.

As the Seraphs Abdiel and Raphael, if when off duty they chanced to meet some fallen angel—some spirit who mingled a spice of fun and jocosity with his devilry—might perchance be visited by some recollection that they had once been members of the same family, and might bestow on him a friendly nod and a few words for old acquaintance sake, mingled with regrets that he had taken to such bad courses, so the Divine Hygieia and Chymia, and whatever other goddesses preside over Medicine and Chemistry, may cast their eyes on those fallen spirits, British and foreign, which form the subject of Mr. Tovey's book, and may condescend to remember that alcohol is a child of the chemist's laboratory, that the earliest recipes for cordials and strong waters are to be found in the Pharmacopœias of Physicians, and that the gin palace, if a Pandemonium upon earth, is yet but an exaggerated and overgrown offshoot of the Apothecary's shop. Most of the celebrated *liqueurs* were, and are still, made in the laboratories of religious houses, to which the people resorted for advice and medicine; and most of the popular drams, as gin, anise, and peppermint, were originally prepared as medicines. It is as childish to ignore the occasional use of these substances as it is to palliate the enormous amount of misery and wretchedness caused by the abuse of them. Mr. Tovey tells us all we need know on their composition and properties; and we commend him for a back-handed stroke which he gives at one of those bits of exaggeration so characteristic of, and so damaging to, the sanitarian philanthropic parties. Gin, it is commonly said, is adulterated with vitriol. One writer says vitriol *and* sulphuric acid. Can our readers imagine the amount of chemical knowledge and common sense possessed by persons who can swallow and repeat such a statement?

THE THIRTY-SECOND MEETING

OF THE

BRITISH MEDICAL ASSOCIATION,

HELD AT CAMBRIDGE ON WEDNESDAY, THURSDAY, AND FRIDAY, THE 3RD, 4TH, AND 5TH OF AUGUST.

DR. PAGET, PRESIDENT.

(Continued from page 159.)

MEETING OF THURSDAY, AUGUST 4.

THE delivery of the address in medicine by Dr. Ormerod, and the other business described in our last report, occupied, with papers and discussions, the greater part of the day on Thursday. We must not, however, avoid noticing certain other important transactions.

LEAMINGTON FOR THE NEXT MEETING.

Sir Charles Hastings proposed, and the Rev. Dr. Bell seconded, that the next meeting of the Association should be held at Leamington, and that Dr. Jeafferson should be president elect. The motion was carried unanimously.

Dr. JEAFFERSON, in returning thanks, said that it would be a source of great pleasure to those who had solicited him to invite the members to Leamington, to feel that their request had been so warmly responded to. And then he told an amusing story, which in its turn told well on the audience. Speaking as to his own ability to fill the chair, and comparing that with the ability displayed by the President, Dr. Jeafferson said that he feared the same remark might be applied to him as had once been applied to Albert Smith. A friend of Dr. Jeafferson's, who was well acquainted with Albert Smith, was speaking with him one day respecting Lamartine. Albert claimed friendship with the great French orator and historian. "I know him well," said Albert, "and esteem him much, and agree with him in all his views: in fact, *we row in the same boat.*" "I know you do, Albert," replied the caustic friend, "*but, by Jove, with what different sculls.*"

A neat joke this, and a bold one for a President elect to tell at his own expense. But the fact is, that at these meetings there is so much real and good feeling that all ends well, and a sound laugh for a minute is worth anything. One thing is quite certain, that Dr. Jeafferson's contrast between himself and the past President was a modest delusion, which the members over whom he is to rule will unanimously vote down should he put it to the vote.

ELECTION OF SECRETARY.

On the motion of Sir Charles Hastings, seconded by Dr. Stewart, Watkin Winn Williams, Esq., was re-elected General Secretary for the ensuing year.

REPORT ON THE ARMY MEDICAL SERVICE.

"After long and extensive inquiry, the commissioners appointed at the close of the Crimean war 'to inquire into the regulations affecting the sanitary state of the army' made certain recommendations in reference to the Medical officers of her Majesty's army, which were embodied in a Warrant issued on October 1, 1858. The 16th and 17th clauses of this Warrant granted to the Medical officer 'relative rank, with all precedence and advantages attaching to the rank to which it corresponds, except as regards the presidency of courts-martial. . . But, when a Medical officer is serving with a regiment or detachment, the officer commanding, though he be junior in rank to such Medical officer, is entitled to a preference in the choice of quarters.' This Warrant gave complete satisfaction to the army Medical officers and the general body of the Medical Profession; but on December 31, 1858, before the Warrant could be brought into full operation, a general order was issued from the Horse-Guards depriving the army Medical officers of the right granted to them by the above-mentioned Warrant of presiding at all boards, excepting courts-martial, when such Medical officer was the senior officer present. By this general order the most important provisions of the Royal Warrant were contravened. That this general order, though acted upon, did not receive the sanction of the Royal prerogative till May 1, 1863, when a Royal Warrant was issued modifying clause 17 of the Warrant of 1858 in the following terms:—'But such relative rank shall not entitle the holder to military command of any kind whatever, nor to the presidency of courts-martial, courts of inquiry, committees, or boards of survey; but when the president of such courts, committees, or boards shall be junior to the officer of the civil department, then such member of the civil department shall attend as a witness, and not as a member.' There is no desire on the part of the Medical officers of the army to exercise any purely military functions, but they consider that they are justly entitled to preside at all courts, committees, or boards, when their relative rank qualifies them to do so. To this, however, it has been objected by the highest authorities that a due regard to discipline, and the necessity of withholding from the Medical officer the power of arrest, has rendered it inexpedient to carry out the Warrant of 1858. Such power of arrest has never been desired by the Medical officers of the army. That the provisions of the Warrant of 1858 do not interfere with discipline has been abundantly shown by the experience of a century in India, where Medical officers sat on boards according to their rank, and assumed the presidency when they were senior without at any time leading to the subversion of discipline. Such was the practice in India until 1858, when a Horse-Guards order changed in a moment the custom of a century. Hence, in a great measure, has risen the difficulty experienced by the Secretary of State for India in filling up the vacancies in the Medical department of the Indian Army, and of attracting to that service men of the same high qualifications as formerly competed eagerly for those appointments. The recent issue by the Director-General of an advertisement for Acting Assistant-Surgoons, without examination, sufficiently testifies to the disfavour with which the non-enforcement and ultimate withdrawal of clause 17 of the Warrant of 1858 has been regarded; and manifestly tends to the further deterioration of the Army Medical Service, by admitting into it those who have been unable to attain a position in general practice, and by deterring those of higher qualifications from entering on a career which they would otherwise regard as the great object of their ambition. It must not be forgotten that upon the efficiency of the Army Medical Department ultimately depends the vigour of the British Army, to which the casualties of war are far less fatal than sickness, due to the want of those sanitary arrangements which the highly-qualified Medical officer knows so well how to establish. Without insisting upon the importance of the question in an economical point of view, it must be admitted by all that the British soldier is entitled to the best Medical skill that can be provided for him by the State. Under these circumstances, the Committee recommend that the collective and individual influence of the Association should be directed towards the restoration and enforcement in its integrity of the Royal Warrant of 1858, and also towards the discontinuance, by command, of the employment of Acting Assistant-Surgeons without examination. The most obvious means for carrying out this recommendation is the adoption of memorials by this Association and its branches to the Secretary of State for War, the Commander-in-Chief, the Secretary of State for India, and the Director-General of the Army Medical Department. But they attach the greatest importance to the thorough discussion of this question by both Houses of Parliament; and with this view they recommend the adoption of petitions to the Legislature, and the communication to individual members of the fullest information as to a question so closely related to the welfare and efficiency of the British and Indian armies."

DISCUSSION.

Dr. Falconer, of Bath, moved, and Dr. Evanson, of Torquay, seconded, the adoption of the Report.

This resolution was carried with hearty unanimity.

Dr. A. P. STEWART, of London, strongly condemned the conduct of the Army Medical authorities, and said that without a struggle they would not yield. This struggle must be ultimately fought in the House of Commons, and some preparation for it was necessary. It was, therefore, of the utmost

importance that in February next energetic action should be taken with the view of rousing the attention of Parliament by petitions, and it would be the duty of the Committee of the Council to attend to this matter at the proper time. Dr. Stewart concluded by moving "That petitions and memorials from this meeting of the Association, in accordance with the report just read, be prepared and presented to the Secretary of State for War, the Commander-in-Chief, and the Secretary of State for India, and that the further carrying out of the recommendations of the Report be referred to the Committee of Council."

Mr. Ceely, of Aylesbury, seconded this resolution, which was carried unanimously, and the meeting adjourned.

MEETING OF FRIDAY, AUGUST 5.

The members of the Association assembled on Friday morning in the Senate House, at ten o'clock. The first business on the programme was the reading and the discussion of the report of a committee formed at the meeting held last year at Bristol, to consider whether a provident fund could be connected with the Association. Owing to the importance of the subject the attendance of members was very large. Previously to this report being read, the report of the Medical Benevolent Fund was placed before the meeting by the Secretary.

REPORT OF THE MEDICAL BENEVOLENT FUND.

The following embodies the substance of the report:—

"The income of the fund during the past year has not equalled that of the year 1862-3: the Committee, nevertheless, have much reason to give a satisfactory and hopeful report of the condition and prospects of their charity.

"In the first place, the diminution in the amount received in donations and subscriptions during the past year may, in a measure, be ascribed to the circumstance that, in the year 1862-63, considerable sums were received as the result of the appeal issued in the year 1861-62.

"The Committee beg to report that during the year just past the donation fund has afforded relief to seventy-eight cases of distress, at an expense of £538, and it has also paid £140 to the Annuity Fund. And they may add that howsoever great and direct has been the alleviation of distress by means of pecuniary aid, they feel that indirectly they have also afforded no slight amount of benefit by enlisting the active sympathies of others in behalf of the distress, by inducing them to visit the cases and to administer the grants in such ways as were found to be most judicious. The Committee also feel that by not unfrequently making grants conditional upon the co-operation of the friends of the applicants they have often succeeded in obtaining permanent help to those previously helpless and almost friendless.

"In the course of the past year the sum of £236 17s. has been invested for the Annuity Fund in Bank Stock, making the present income for annuities amount to £443 12s. 6d."

Mr. Propert proposed, and Dr. Vose (Liverpool) seconded the adoption of the report, which was carried, *nemine dissentiente*.

REPORT OF THE PROVIDENT FUND COMMITTEE.

Dr. Richardson, as Chairman of the Committee, read the report, of which the following is a copy:—

"The Provident or Relief Fund Committee was appointed last year at the Bristol meeting, to consider and report on the question whether it be possible to establish, under the direction of the Association, a relief fund, which shall enable the widows of members, or the orphans of members, or members themselves, during sickness to receive pecuniary aid by annuity or otherwise, on the principle of mutual protection and right.

"The Committee have to report that their first meeting was held at Birmingham, the second in London, and the third at Cambridge. A sub-committee was also appointed by the first meeting, and has been actively engaged.

"The Committee has aimed at the attainment of two objects—first, to procure trustworthy information on the whole subject; and secondly, to frame such suggestions as appear, after due inquiry, to arise out of the facts that have been collected.

"Before entering into particulars, the Committee would briefly observe that in the course of their labours they were for a moment interrupted by the suggestion that an enlarged annuity scheme in extension of that which became law during the last session of Parliament would probably be introduced at an early period by the Chancellor of the Exchequer. The Chairman of the Committee was, therefore, directed to ascertain, if possible, whether this statement was well founded; and he has been informed by Mr. Gladstone that 'the Government have not formed any such intention as that referred to.' This supposed obstacle is, therefore, removed.

"The Committee would next report that, owing to the difficulties of arriving at a correct decision by their own efforts, it was agreed at their first meeting, on the suggestion of Sir Charles Hastings, that the sub-committee, consisting of the Chairman and Dr. A. P. Stewart, should consult Mr. Tidd Pratt, and take his opinion on every essential point of the project. This has been effectively done; and upon the information thus obtained the following statements are based:—

Facts.

"1. The Committee are satisfied that, in considering a scheme for the formation of a relief fund, it is essential that two of the elements suggested at the Bristol meeting—namely, the granting of annuities and the making provision for widows and orphans—must be entirely abandoned, and that the fund must be devoted exclusively to payments to sick members. Deferred annuities are now so easily purchaseable from Government, and insurances are so readily effected with good offices, that this decision of the Committee calls for no regret.

"2. By directing the attention of the Association solely to one object, there is no doubt whatever that a provision against sickness could be easily and economically secured; and the Association, through its branches, affords an organisation admirably adapted for obtaining these benefits.

"3. The number of members necessary to give stability to such a fund must not be less, according to Mr. Pratt, than 200. He states that '200 would be sufficient to enable the fund to start with a sufficient average.' This is the lowest estimate. But the Committee do not doubt that, the scheme being once established, a sufficient number of members would be obtained to ensure its permanence. It is, of course, understood that the fund would only be joined by persons actually in good health.

"4. The payments must necessarily vary with the age at which the subscriber commences his membership; but the Committee have taken the age of 35 for the purpose of illustration. They have also taken a payment of £2 a week for the same purpose. They find that, at the age of 35, the two pounds a week can be secured by the payment of 17s. 1d. per quarter, or £3 8s. 4d. per year. To this must be added a small sum, of from 3s. to 5s. per year, for the working expenses of the institution. The payment would be continued in case of need, for one year without diminution, and for a second year at a reduction of one half. It would, in any case, terminate at the age of 60. These statements are based upon the experience of fifteen successful institutions; and may be considered as absolutely reliable. If larger payments are wished for, they may be made by multiplying the above figures. It would be necessary that members should contribute for one year before they became entitled to relief.

"5. In forming a provident fund in connexion with the Association, three modes of action present themselves, namely—

"α. By enrolment under the Friendly Societies' Act.

"β. By independent association without special legal sanction.

"γ. By obtaining a Royal charter of incorporation.

"The first of these is objectionable, because it would necessitate the enrolment of each separate Branch as a distinct society without any federal centre.

"The second plan, or independent association without legal sanction, is perfectly feasible; but the proceedings would rest entirely on the good faith of the members and the management. The Committee feel, however, that the organisation might safely commence on this basis.

"The third plan, that of obtaining a Royal Charter of Incorporation, is, in the opinion of the Committee, by far the best. It would place the Association in a position that it has never before attained; it would give legal authority to all its statutes; it would render the relief fund permanent; and would powerfully contribute to the stability of the Association. Mr. Pratt is of opinion that, on the basis of the Provident Scheme, the Charter could be easily obtained; and he has sketched out for the Committee the method of applying for it. The Committee find that such a Charter would cost from £250 to £300.

Suggestions.

"1. The Committee would suggest that the Relief Fund might be commenced forthwith, from the nominal date of

July 1st last past, and that the subscribers should be eligible to receive benefit from July 1, 1865, after payment of their second annual subscription.

"2. That, in order to carry out the project, a board of directors should be nominated in the following manner, to wit:—

"One director to be appointed by the members or Council of every branch; or, in the case of very large branches, two, or even three, directors, in proportion to the numerical strength.

"Three or five directors to be appointed by the Committee of Council on account of members not represented by branches.

"A chairman to be elected by the annual meeting from the body of the Association.

"The directorate thus formed to have power to appoint their own officers, and to determine their remuneration. They would furnish also the annual report at the time of the annual meeting.

"3. A question which has given anxiety to the Committee is whether the Relief Fund should be open to the Profession generally, or should be limited to the members of the Association. A large majority of the Committee are in favour of the latter scheme, against which it is only urged that membership of the Association being of the nature of a luxury ought not to be a condition precedent to an act of foresight and self-denial.

At this stage of the report the chairman read the following protest from one of the members of the committee:—

"Stroud, August 3, 1864.

"The undersigned is desirous to call the attention of the Association to the question, Whether the proposed Provident Fund would be open to the Profession generally or to members of the Association only?

"Upon reflection, the undersigned feels more and more strongly that its limitation to members of the Association would be a great and unjustifiable hardship to many struggling men. Such a limitation might, as is justly urged by the majority of the committee, bring new members into the Association; but would it not certainly keep others, and those the most necessitous (for whom their more fortunate brethren are surely bound to take thought), from sharing in the benefits of the provident scheme?

"The undersigned begs leave to suggest that the Association might include two forms of membership,—membership of the provident fund and membership of the general fund, and that it should not be compulsory to belong to both or neither. He is strongly of opinion that men who joined the provident fund would be certain to join the general fund when their means permitted them to do so; and he would venture to hope that the great majority of members of the general fund would support the provident fund also. But he would much regret that the tax of an extra guinea should stand in the way of any Practitioner of small means who yet wished to secure himself against want in the time of sickness.

"Robert B. Carter, F.R.C.S."

"4. Another question of importance is whether the sick members during convalescence should be absolutely debarred from any act of Professional work. On this point Mr. Pratt is of opinion that 'no member should receive relief in sickness from the fund, if he is capable of attending to any Professional labour,' but the Committee think that this question may be safely left to the patients, and to those who sign certificates for them, and that such certificates should declare *unfitness* for work, rather than positive disability. This as a matter of detail the Committee would leave with the directorate.

"5. The Committee have reason to believe that if the fund were established, donations and legacies would be added to it, but all the calculations have been made irrespectively of such a source of income.

"6. To meet preliminary expenses, should the Association adopt the report of the Committee, a moderate grant from the funds will be required. The Committee would suggest a sum of £50, to be paid by the Treasurer as it was demanded.

"7. It would devolve upon the board of directors to prepare detailed rules and bye-laws as soon as possible, and to circulate them extensively in the Profession.

"8. In conclusion, the Committee cannot too strongly urge the importance of the suggested Royal Charter of Incorporation; the obtaining of which, by the Association, would greatly strengthen the cause they have at heart.

"Signed on behalf of the Committee,

"B. W. Richardson, M.A., M.D., Chairman.

"Cambridge, August 3, 1864."

Discussion.

After the reading of the Provident Report, Dr. Richardson moved,—"That it be received and adopted." He explained the various steps that had been taken by the Committee, and regretted the unavoidable necessity of striking out the two elements suggested at Bristol—the widows' fund and the annuity scheme; but the subject must be dealt with practically, and he was sure the Association would feel it had sufficient on its hands in carrying out the provident measure only. He next explained the organisation suggested, which, he said, rested on the most liberal and catholic basis: it gave to every branch a representative voice; it provided for members who were not represented; and in giving the Association, as a body, the selection of the chairman, it bound the branches with the Association in federal union. Having laid their report before the meeting, having supplied all the facts that could be obtained, and suggested upon them, the Committee had brought their labours to a close; and it was for the Association to say whether the project should go on. He (Dr. Richardson) believed that the passing of the Report would strengthen the Association, give to it permanency, and tend to make each member to each member the more a brother.

Sir Charles Hastings had sincere pleasure in seconding the motion. He recalled the fact that thirty-four years ago the Association had been desirous of carrying out the objects set forth in the Report which had just been read; but at that time they were obliged to give the matter up, though they then hoped the time would come when they would be able to carry out the object. That time had now come, and the adoption of the Report would give every member the power of securing the means of support in time of sickness. There were many in the Profession to whom illness came and found them unable to fight against its difficulties, and many entirely sank under those difficulties. If, therefore, the Association could bring forward and carry out a scheme to relieve this state of things, it would accomplish a great work for humanity. He (Sir Charles Hastings), when the measure was brought forward, was desirous that everything should be done on the soundest principles. The Committee had had the advice of Mr. Tidd Pratt, who had constantly before him all the details of friendly societies, and knew exactly their difficulties. He (Sir Charles Hastings) said that the history of friendly societies had hitherto been far from encouraging; but Mr. Pratt knew the circumstances leading to their failure, and was able to direct the Committee in the right course. He believed that if the Association carried out the recommendations of the present Report, the day would come when the other portions of the scheme might be attended to. That time might be far distant; but the period would come when they would be able to afford relief to those who were afflicted and those who mourned.

A discussion followed, in which Dr. Jeafferson, Mr. W. Martin, Dr. Gibbon, Dr. R. Hall, Mr. Manley, Dr. Routh, Dr. Milner Barry, Dr. Tunstall, Mr. Daniell, Mr. Heckstall Smith, Dr. Thorpe, Dr. Cormack, Dr. Camps, Dr. Stewart, Dr. Ogle, Dr. Barham, and Dr. Hemming took part. The Report was ably and warmly supported, but certain points were thought deserving of re-consideration, especially that part which debarred members at 60 years of age from partaking of the benefits of the fund.

Dr. Richardson, at the close of the debate, answered the various questions put to him, and on the vote being taken, the adoption of the Report was carried with but one dissentient voice. Dr. Richardson announced that a handsome sum of money towards a *guarantee fund* had been already promised, including twenty guineas from Dr. Symonds, of Bristol; *ten* guineas from Dr. Paget, *ten* from Sir Charles Hastings, etc. The Rev. Dr. Bell intimated his wish to add *ten* guineas, and Mr. Daniell *five*, with *five* more annually.

Sir Charles Hastings, in an energetic and complimentary speech, proposed "That Dr. Richardson be appointed chairman of the Directorate of the Provident Fund."

Mr. Daniell seconded the resolution, and the Rev. Dr. Bell having spoken in support of it, it was carried unanimously.

Dr. Cormack moved, and Dr. W. Budd seconded, "That every member of the Directorate, and every member who voted for a director, should be a member of the fund."

This motion was also carried unanimously.

The Provident Fund of the British Medical Association has thus become an accomplished fact; and it only remains to complete the organisation by the formation of a Directorate in the manner laid down in the Report.

Papers and cases were then read and discussed.

The members re-assembled at four o'clock, when the following Address was delivered:—

THE ADDRESS IN SURGERY.

By G. M. HUMPHRY, M.D., F.R.S.,
Surgeon to Addenbrooke's Hospital.

My reluctance to undertake the present task, and my diffidence in attempting it, are, in a great degree, counterbalanced by the pleasure and pride that I feel in addressing you in this place, at a period which may, I think, be regarded as an era of no small importance in the social relations and the science of Surgery.

If we look back to those early periods when the light of history shines obscurely, and tinted with chivalry, through the mists of fable, we learn that Surgery was, as we might expect from the nature of things, the elder brother, perhaps I should say the father, of Medicine. The first cultivators of our Profession—Chiron and Æsculapius, Podalirius and Machaon—were chiefly occupied in Surgery. That it was an honourable vocation is proved by the fact that demigods and heroes, princes and priests, devoted themselves to it, and with such success as to be deemed worthy of deification among men, and of incurring the hostility of Pluto.(a) Still knowledge was little, superstition and fancy were great; and all played their part—the two latter the chief parts—in helping nature to heal the wounds which man inflicted on man, for the work consisted chiefly in the treatment of injuries. Hence, for many ages, and in most countries, the offices of priest, of necromancer, and of Surgeon, were combined in one person. Internal maladies soon came in for their share of speculation, of spells, and of drugs; and the ιατρος of the Greeks, the

"αυηρ πολλων αντάξιος ανδρων,"

was a general practitioner. Indeed, all the knowledge of those early times was within the grasp of one mind, and was included in the study of each of those who bestowed much attention upon education. Physics and metaphysics, philosophy and anatomy, were blended, or rather grew up together, and served to elucidate as well as to confound one another. Thus Plato entered into physiological discussions respecting the functions of the body and the effect of their derangements in inducing morbid conditions of the system. It is not improbable that Pythagoras acquired some knowledge of anatomy by the dissection of animals; and Aristotle has left us the first regular treatise on comparative anatomy. Indeed, it was not till the parings and the additions made in the Alexandrian school had given substance and individuality to the several sciences, that they admitted of separation from one another. Then Medicine began to be studied with much assiduity, apart from philosophy and theology: the dissection of the human body was first practised, the department of surgery was separated from pharmacy and dietetics, and there seemed good promise of much progress in them all.

A promise soon to be broken; for no sooner had this point been attained than all was once more thrown into confusion, and the sciences were reduced again to chaos by that disorder of nations and conflagration of learning which were typified and aided by the Alexandrian fire. Science was, indeed, well nigh consumed; its only representatives in Europe, amid the general return to superstition, magic, and astrology, being alchemy and the like silly strainings after the impossible; the very folly exhibited in the search for the philosopher's stone and the elixir vitæ showing that some such ignoble though potent stimulus was necessary to keep alive any germ of science at all. Islam, for a long period, afforded it the only shelter; and in Arabia, where chemistry seems first to have acquired an individuality, amid the strange, philosophising works on Medicine, some additions were made to Surgery by Rhazes and Albucasis; but the savage proceedings with knife and cautery tell of no real advance in practice.

The great mistress of the world, of military and orderly, rather than of philosophical genius, was no zealous patron of science. Even in the zenith of her power and refinement, when literature held a worthy place in her courts, Medicine was at so low an ebb that its practice was prohibited, and its professors were banished on account of their barbarous and unsuccessful proceedings. These interdicted mutilators were practitioners both in Medicine and Surgery. They included none of the higher families, few even of the free Romans; but were chiefly Greeks and Asiatics, or slaves. The honour of being the first native Roman Physician of eminence, as well as of being the first who treats of Surgical operations, was reserved for Celsus.

That second mistress upon the seven hills, whose power rested on the spirit rather than the sword, and whose empire, based upon the deep yearnings and secret motives of man, was destined to exert so wide and lasting an influence upon the human family, was far too wise to neglect the great engines of philosophy and science. Though she watched them with a jealous eye, and reined them with a nervous hand, that indicated a consciousness of fault, and therefore of weakness in her system, she could not but encourage them as subsidiaries to her stability and her power; so the lamp of knowledge began to glow in her cloister, and shed light into the darkness around. The priestly and the Medical offices were again united, and Medicine and Surgery derived some benefit from the slight education of the ecclesiastic. Still there was little progress. Science was extremely low. In our own country it can be scarcely said to have existed till the intermingling of people consequent on the Crusades, the breaking up of the feudal system, and, above all, the discovery of printing, helped to loose the bands of superstition, and give a new impulse to knowledge. The increasing time and attention required for the treatment of the body, and the gains consequent on it, diverting the monks too much from their appropriate duties, necessitated a change. We find, accordingly, that Surgery, as being the most obviously inconsistent with the priestly office, was first detached and forbidden, and it fell into the hands of smiths and barbers. The separation, thus a second time commenced, was by no means beneficial. Medicine, detached from the more lucrative branch, fared badly enough, and seems to have consisted chiefly of cabalistic notions and strange concoctions from the animal and vegetable kingdom; and, under the sign of the forge or the bandaged pole, little could be expected for Surgery. No wonder that astrology and magic, the sympathetic powder and the royal touch, were needed as auxiliaries to the searing irons, the tents, and the unguents.

The impulse given to the study of human anatomy at Bologna, in the fourteenth century, and the foundation of schools in Montpellier and Vienna, as well as in Paris and Italy, aided by printing in the fifteenth century, gradually rolled back the cloud of ignorance from east to west, and produced their effect in England, especially upon Medicine. It made rapid strides. The learned of our Universities not unfrequently took the honourable degree of Doctor of Medicine, visited foreign Universities, especially Bologna, Padua, Salerno, and Paris, and maintained that position in our court and country which their learning and their Profession deserved. Through them Medicine held its ground on a level with divinity and law. The effect of reviving knowledge was much slower upon Surgery. Degraded from the monastic to a lower class, it little attracted the attention of the learned, and did not deserve the name of a science. Still it could not fail to glean something from the general spirit of improvement; and its practical character made some amends for other imperfections. The Surgeon-barbers were the more dignified section of their order, and were incorporated as a separate body by Edward IV. In the field of Agincourt the Body-Surgeon of the king, and the Surgeons of the army, were held in some estimation. Each succeeding sovereign had his Serjeant-Surgeon; and patients in the Hospitals were consigned to the care of the Surgeons as well as of the Physicians. Hence, it is scarcely credible that the incongruous connexion between the Surgeons and the barbers should, even nominally, have continued so long as the time of George II., and that not till the beginning of the present century were the Surgeons incorporated as a separate body.

During the last century, though I cannot but fear that Medicine has, in some degree, descended from its high estate, there is no question that Surgery has advanced with rapid strides; and, through its connexion with pathology, and the clearer enunciation of principles deduced from a careful observation of facts, has acquired the position of a true science. It is no small satisfaction to know that a scientific cultivation of their Profession has formed the real basis of the reputation of the most eminent Surgeons of the past and the present generation. We cannot but cherish the recollection that it was by the renowned Surgeon of our boyish days, in whom zeal and patience met in a rare degree, that anatomy and pathology were pushed to the utmost verge the unaided eye could reach. Look round some of our best museums, the choicest specimens in them still proclaim the master-hand of Astley Cooper; and remember that they were made in the

(a) It is related that the death of Æsculapius was due to the jealousy of Pluto, excited by the numbers whom he rescued from the grave.

zenith of his career, and in the later periods of his life. The early mornings, snatched from days of an unequalled professional career, were eagerly devoted to the tedious work of unravelling the anatomy of the breast, the thymus, and the testicle.

In him who has lately passed from among us, full of years and full of honour, the physiologist, the philosopher, and the sound practitioner, was ever present the anxiety to attract others along that path of science which he had himself found so sure a way to success. My last conversation with him was on the question of rendering our universities more available to our Profession for that purpose. Full of honour I said he was; and yet I could have wished that an additional mark of that honour, the well-earned tribute of a coronet, had been allowed, in the person of Brodie, to testify to a due appreciation of our Profession.

The survivor of that illustrious trio, who still helps to bear the burden of the day, has contributed no less than the other two to widen the area of our knowledge, and to build up Surgery securely upon the basis of physiology and pathology. His lectures, dating nearly half a century back, remain, to my mind, the best embodiment of Surgical science ever written, and have done more than any other work to disseminate sound views of pathology and correct principles of treatment. Of Cooper, Brodie, and Lawrence we may well be proud; and not we only, but this country and this age. I need but mention the names of Bowman and Paget among those now occupying the foremost rank, to prove that deep research in physiology and pathology is still an acknowledged road to Surgical eminence. Long may it be so! May it be so to a greater extent than it is.

To a greater extent than it is; for let us not boast too much. It needs no lynx's eye to see that the evil, the *auri sacra fames*, which always has, and which doubtless always must, enter more or less into our composition, and which should, therefore, be the harder fought against—the evil which had much to do with our great degradation in mediæval times, and which has of late been dragging upon Medicine—is exerting its influence upon Surgery. Few are attracted to our ranks except by the hope of a livelihood, to which practical work offers the readiest and the surest prospect. Even of those who, in early life, are induced by disposition or ambition to cultivate the science, nearly all are soon drawn away into the more lucrative paths of practice, and become wholly engaged in them. Their very success in the one leads them to desert it for the other:

"Science self-destroys her favourite sons."

She tells them how little of direct reward, of that kind of reward which most men seek, she has to give. She shows them, too,—the most discouraging revelation of all,—how hard it is to link her on to the work we have to do, the work of stopping disease and repairing its ravages; and how much harder it is to render her available in scanning the character and meeting the fancies of those we have to treat.

The subdivision of labour, too,—a necessary consequence of the ever-widening area of the field of knowledge, and the rapid increase of wealth,—conduces to the same result. The great practical gain attendant thereon is shown by the improvement which has of late years been made in the treatment of so many diseases; but the loss to the Profession as a science, from this narrowing of the range of observation, and this concentration of thought upon special subjects, must, I think, be admitted. It is an evil difficult, impossible directly, to combat. Indeed, the overweening practical tendencies of the age, of which our Profession does but furnish an example, can only be counterbalanced by giving greater heed to early training, to education; that is, during the period when the mind has not yet become absorbed in the engrossing avocations of money-making life.

To do this, to prolong that period, to promote high mental culture and refinement of thought, to foster the taste for literature, and to prevent its being borne down and swamped by the ever-swelling tide of practical energy, is the especial work of the Universities. Never were these noble institutions more required; never was there greater scope for them, and greater opportunity, and, therefore, greater responsibility. Their influence upon education, radiating through the public and private schools, pervades the whole land. We look to them to hold up the banner of science at its proper level. We ask them, not, indeed, to forsake the ancient and approved standards. Let classics and mathematics, logic and theology, wave as proudly and as securely as ever; but let other pennons float beside them. Other sciences have risen up, and claim their share of attention and assistance. By standing forward as the nursing mothers of these sciences, by fostering them judiciously, by controlling their wayward tendencies, by holding them up above the din and clatter of the world, by promoting their study in a calmer, higher, more philosophic manner than could otherwise be done, the Universities will be exercising their proper sway over the great onward movement, will be promoting the revival of a truer spirit of philosophy, and will be assisting it to harmonise and keep pace with the practical genius of the age.

Surely, gentlemen, these remarks are not uncalled for, are not inappropriate, at this time and in this place; for I may ask, what have our English Universities done for Surgery? What influence have these cherished and richly-endowed seats of learning exerted upon our science? We must answer, almost nothing, except the little derived through its partnership with Medicine. Upon Surgery, directly, they have had little or no effect. Very few of those trained in our Colleges have entered its ranks; fewer still have risen to eminence in it. Not that Surgery was altogether overlooked. We find in the statutes of Henry V. and Elizabeth provisions for granting a license to practise in Surgery; but it is probable that this referred to practice within the Universities, just as the licenses of the London Colleges of Physicians and Surgeons referred to practising in the city and its immediate vicinity. At any rate, few availed themselves of the privilege, and the statute had been obsolete for many years.

The real cause of the Universities having been so little connected with our Profession, especially the Surgical branch of it, is probably owing to their not being metropolitan. The tendency in this country for things to adjust themselves according to circumstances, rather than to be moulded by the directing agency of imperial rule, has shown itself in this. London, from an early period the chief and most increasing centre of trade and of fashion, of government and of literature, took some steps, by the foundation of the Colleges of Physicians and Barber-Surgeons, and the Apothecaries' Company, after the model of its guilds and other corporate bodies, to secure the welfare and the proficiency of those who practised the healing art within its district. The provincial towns, left without such provision or the means of supplying it, naturally looked to the metropolitan institutions. Thus the London Colleges became long ago, in reality, what they have only recently been named, the Colleges of England. In awaking from its lethargy, in reasserting its dominion over Surgery as well as Medicine, and in aspiring to control the general practice throughout England, the College of Physicians has taken an important step, the full effect of which can scarcely be at present determined. While the more liberal charter of the College of Surgeons, and the institution of the fellowship, must raise the character of that body, and bind it more closely to its provincial members. Had the Universities been situate in London there is every probability that they would have been in England, as they are in some other lands, the great portals of the Profession, the dispensers of Surgical as well as of Medical qualifications throughout the country.

But is there no part left for Oxford and Cambridge in connection with Medicine and Surgery? Is the influence of these Universities upon our Profession to be allowed to dwindle and die out? Gentlemen, I think it will be a serious loss to us if it be so. I think the history of the past, and the features of the present to which I have alluded, tell us that an important part still remains for them to play in relation to us. It is highly desirable that the members of the Profession should be drafted from different classes of society, and trained in different ways; and though it is not to be expected that the Universities can contribute more than a small proportion to the number of those engaged in practice, yet if only some of that small proportion, highly educated, and imbued with a real love of learning and a desire to cultivate science for science sake, could be annually added to our body, how great would be the boon! The leaven thus infused would leave its influence upon the whole mass. It would induce a higher system of teaching in our schools, and would help to resolder the links of the chain that should bind Medicine to literature and philosophy. Many such men wander forth from the Universities not knowing whither to go, or where to direct their energies. My longing hope and heart's desire for Surgery is that more of them should be drawn into her service. Some have recently entered, and the good work they have done is full of promise for the future. Let it suffice to mention the very able editor of "The System of Surgery." And I cannot but trust that the recent recognition of Surgery in this and

some of the other Universities in the United Kingdom will, in course of time, tend to enlist greater numbers of their graduates into our ranks, and will conduce to a more genuine and successful prosecution of our science.

And surely the science that deals with the aberrations and the restoration of the noblest and most complicated of nature's works is no unworthy object for the lifelong energies of the highest mind. It is the topmost branch of the tree of physical knowledge. True, the very height and complication of our science remove it further than most others from the region of calculation, and deprive it, in some measure, of definiteness and exactness. If, with all the present accuracy, and range of mathematics, and knowledge of material, the construction of an iron bridge is still deduced from experiment rather than from calculation, we cannot be surprised that much uncertainty attends the investigation of the functions of the human body, and that the treatment of its diseases is often empirical rather than deductive; but this only proves the difficulty of the science, and the need of applying to it the highest powers of the mind strengthened with the best aids of education. I cannot doubt that rich fruit would, in due time, follow from the bestowal upon Medicine and Surgery, and the collateral sciences, in Oxford and Cambridge, of a fair share of that cultivation and favour which are granted with so liberal a hand to the more peculiar studies of these places. I trust that, ere long, this will be done. Physical science is gradually taking more root in these Universities; and it is for you, with your voice and interest, to aid the residents in Oxford and Cambridge to obtain for it, and, through it, for our Profession, the *status* and consideration which are their due. That keen and deeply-interested observer of passing events, especially of those relating to science and the Universities—the late Dean Peacock—entered warmly into this view, and said to me, not long before his death, "I am astonished that your Profession does not look more closely to its interests in our Universities. Depend upon it, it will have reason to regret its apathy. It will assuredly lose ground in position and in public estimation."

Excuse my dilating so long upon these matters. I feel that the occasion and the place justify, if they do not demand, some allusion to them; and the deep interest I take in them would scarcely allow me to forbear.

I will proceed now, in closer conformity with the duty assigned me, to a brief review of some of the more important changes that have taken place in Surgery in my time (eight-and-twenty years), and in my own experience. I should rather say, to give a hasty account of my own experience of them.

The marvellous results in our social system, from the application of steam to the transmission of our bodies, and electricity to the transmission of our thoughts, make us impatient of ordinary progress and impel us to look for extraordinary steps in the advance of Surgery. Happily we do not search altogether in vain. There is one discovery which, from the amount of human suffering, and that of the sharpest kind, it has spared, deserves to be classed in the same rank with the great inventions I have named. On the benefits of chloroform, which may be taken as the representative of anæsthetics, in this respect, I will not dwell. They are too patent to need recital. I think I am warranted in speaking of this benefit as a pure gain; that is to say, though some evils may attend upon the use of chloroform, others equally great have been removed; so that the dangers of operative Surgery have not been increased, while its horrors have been greatly diminished. It is too much to expect that so powerful an agent, quickly pervading the blood, and paralysing the sensorium, can be employed without occasional damage, even fatal damage; and the instances in which this occurs are most appalling and impressive. Happily they are few; and, with increasing experience and care, their proportion may, perhaps, be diminished. We are thankful, in this place, that we have not hitherto witnessed any disaster from its use; which must in no small degree be attributed to the care bestowed upon its administration by our House-Surgeons. The after ill effects have been confined to depression, nausea, and sickness. These are by no means common, and have seldom been attended with serious consequences. In a few cases I thought that, by lowering the patient's strength, they contributed to determine the fatal issue; but that has not been quite certain in any instance.

Chloroform has greatly widened the range of operative Surgery, especially of the tentative and conservative kind. There is no question that operations can be more carefully and better done under its influence; and little excuse is now left for secondary hæmorrhage. That sequence is, in my opinion, almost always attributable to negligence in the Surgeon, not to disease in the patient: that is to say, it occurs far less often from a fault in the vessel, or in the healing process, than from carelessness in the application of the ligatures. Had chloroform done no other service than that of inducing us to bestow more attention upon this stage of an operation, it would have deserved well at our hands.

While dwelling upon the blessings of this discovery, let us not forget that, though the medium we use is due to the zealous and enterprising Physician of whom Scotland is justly proud, the credit of the introduction of anæsthetics into operative Surgery belongs to America, and is one of the results of that energy of character, of that impatience of *antiquæ viæ*, and that aptitude for meeting the ordinary requirements as well as the extraordinary emergencies of life, which have there been so highly developed. It has often been a matter of surprise to me that these qualities have not told more upon Surgery; and yet I am not unmindful of the names of Mott, and Warren, of Sims and Mütter, and of the obligations of pathology and operative Surgery to them and others of our transatlantic brethren. This one addition, however, may be well accepted in lieu of many.

Blessing as chloroform has proved, it could scarcely have been so considered, rather might it have been regarded as a curse, had not the way for it been paved by a gradual increase of knowledge and an improvement in practice, especially in the treatment of wounds. This has from the earliest periods occupied a large share of the attention of Surgeons; and no feature in the history of Surgery, or, indeed, of the human mind, is more curious and more interesting. The ingenuity with which mischievous theories have been promulgated, and impediments to nature's reparative processes have been devised, as well as the tenacity with which they have been retained, are scarcely credible. The greatest advance, perhaps, ever made in our art was effected through the acute mode in which superstition was combatted with her own weapons by Sir Kenelm Digby and his sympathetic cure. The notions of purification and mundification had taken such deep hold on men's minds, and the practices with spells and setons, with caustics and irritating unguents, were so firmly grafted upon them that nothing short of a proceeding, the very absurdity of which gave it an air of mystery, and so constituted a claim to respect, could suffice to uproot them. This transference of the mischievous applications from the wound to the inflicting weapon,—

> "And with a charm she staunched the blood,
> And salved the splinter o'er and o'er,"

was a grand success of that use of deception to enforce truth which is the basis of the highest order of quackery. In spite, however, of this great hint, and the important principle of "union by first intention," thus introduced, strong prejudices in favour of plasters, unguents, bandages, and other interferences, have descended even to our time, and are still too prevalent. In Addenbrooke's Hospital we have for several years discarded these applications almost entirely in the management of ordinary wounds and after operations. The edges of the wound are kept in apposition by sutures, if any assistance is required, and are then left quite uncovered, quite exposed to the air, for the first few days; no plaster or bandage, not even lint, wet or dry, being used. After a time fomentation, or poultice, is applied, if there be need; but often the healing of the wound has saved further trouble. By this mode the wound is kept cool and clean, and is exposed to the air and to the eye, so that its condition is known, all the distress of the subsequent removal and reapplication of dressing is avoided, and our patients are not unfrequently discharged after amputation and other operations without having experienced one twinge of pain during the operation or subsequently. This anæsthetic treatment of wounds is the proper sequel to the anæsthetic mode of performing operations. I am glad to find that the practice is finding its way into other Hospitals, and trust that ere long it will be still more general. Adopting it, we may be said to have pretty well realised the *ne plus ultra* in the treatment of wounds.

It has not appeared to me that metal offers any decided advantages as a material for suture over thread or silk, provided these be properly, not too tightly, tied; and certainly, if there is much tension, the metal cuts its way out sooner than the others, and is, therefore, less serviceable. This I have found by inserting thread or silk and metal sutures alternately in the same wound.

The ligature is so effective a method of securing blood-

vessels, and its disadvantages, which seem to have been rather magnified, are so much counterbalanced by the drain it affords from the depths of the wound, that I have not resorted to either of the recently-proposed modes of arresting bleeding. I still regard the ligature as the most important addition ever made to Surgery, and have just expressed my belief that secondary as well as primary hæmorrhage may, in almost all cases, be prevented by its proper application. Having this faith in it, I have hitherto been content to leave the proving of its proposed substitutes to others. Still, as the ligature does necessitate a slight amount of sloughing and suppuration in the wound, I shall be glad if experience shows that even this good thing is superseded by a better.

In the management of patients after operations, Surgeons are relinquishing the idea that any particular plan, stimulating or lowering, sedative or otherwise, is, as a rule, to be enforced; and are falling back upon the common-sense view, that each case is to be treated according to its special requirements, due regard being had to the habits, the appetite, and the inclination of the individual, and due regard being also had to cleanliness and fresh air. Simple things are, after all, the most important, and to nothing in late years can we look with more unmixed satisfaction than to the increasing respect that has been paid to plain hygienic rules. In a stricter observance of them advancing civilisation provides an antidote to one at least of its own poisons, making the towns to vie in healthiness with the rural districts, and removing some of the greatest opprobria from our Hospitals.

We know, however, too well that the tide of increasing success is not without its ebbs. We do not flatter ourselves, as we blot out or mitigate certain classes of diseases, that others will fail to spring up and flourish. Such an illusion would at once be dissipated by the mention of that malady which has of late years proved so frequent a cause of death after operations, and which has been named, somewhat inappropriately and unfortunately, pyæmia.

The name, I say, is inappropriate, for though it is highly probable that the disease is associated with or dependent on some morbid condition of the blood, there is much reason to presume that that condition is not a result of the admission of pus into the circulating current. A tendency to suppurative inflammation in various parts of the body, accompanied by certain phenomena of a peculiar and rather variable kind, is what we observe, and is nearly all we know about this formidable affection. The tendency is commonly, but not always, associated with a wound or sore; and there is often a premature and irregular coagulation of the blood, such as we find under many other circumstances—clots forming quickly after, or perhaps before, death, and containing sometimes white patches of varying consistence, which resemble spots of pus, but which are probably composed of clustered white corpuscles or fibrine alone. Of the dependence of this condition of the blood upon the accidental admission of pus from the wound there is little or no evidence. The disease is more liable to occur in some constitutions than in others, and is, I believe, more frequent in the metropolis than in the provinces. In this district we do not very often witness it, and when it does appear it is rather the wind-up feature in a sinking case than a real malady.

There is often much in a name; and the name "pyæmia" is, I think, unfortunate as well as inappropriate. It is suggestive too much of an accidental, and too little of a constitutional cause. It thus rather tends to divert attention from those precautions by which the disease may be warded off, and it leads too directly to inactivity and despair when the symptoms have commenced; whereas, if we regard it not exclusively as an accidental invasion, but as, to some extent, a constitutional disease, we shall be more induced to seek its prevention by measures which are conducive to the general health before and after operations; and when it has commenced we shall not at once give up the case as a hopeless one of blood-poisoning, but shall still endeavour by general means, by stimulants, or the contrary (according to requirements), by cleanliness and abundance of fresh air, to improve the condition of the patient, and we shall find that success will sometimes reward our efforts. Indeed, close observation shows us that this "suppurative fever," as it may be better called, has its milder as well as its severer forms. There are instances in which it consists merely of a slight febrile attack followed by one or two abscesses which burst, or are opened and do well, and which do not much retard the recovery of the patients. In such cases the idea of blood-poisoning scarcely occurs to us; and yet they are of the same kind with the formidable and rapidly fatal forms of the disease, and—which is the important practical point—are connected with them by an intermediate range of cases varying in severity, and in the opportunities they afford for treatment.

My own impression is, that the more frequent occurrence of this disease in late years is mainly owing to the richer dietary of our people; and that its prevalence is, generally speaking, proportionate to the amount of animal food habitually consumed. It is most common in the upper classes, and in the metropolis and larger towns, where wages are high and living is high; and it is least seen in the agricultural districts, where the people are, to a greater extent, graminivorous. The affording a comparative freedom from this disease is, I believe, one of the ways in which the ordinary spare diet of the agricultural labourer renders him a good subject for operations, and give a favourable aspect to the statistics of provincial Hospitals.

To the practice of administering Opium, either by the mouth or hypodermically, after operations, for the purpose of preventing the pain that is likely to follow them—a practice which has many advocates—I am, in most cases, decidedly opposed. The immunity from suffering, which, be it remembered, does not by any means always occur, and which improved treatment of the wound will render still less common, is, in my opinion, dearly purchased by the languor and enervation that often follow the opiate. As a general rule, I prefer that my patient should run the risk of a sleepless night after an operation, rather than incur the effects of the sedative.

In the old capital operations, some changes have been introduced, but no very decided improvement. In lithotomy we do not excel Cheselden and Martineau. The lateral operation, as practised by them, is, notwithstanding the suggestions by Alanson and others, probably, on the whole, the best mode yet known of removing a stone from the bladder by cutting. Lithotrity has been perfected,(c) has been overrated, and is acquiring its proper place in our estimation. In Addenbrooke's Hospital we have not very often resorted to it, because, in the class of patients who there come under our care, it is difficult to ascertain the duration of the symptoms, and to estimate the size of the calculus. These persons are, moreover, commonly intolerant of the repetition of operative procedures; and, in the cases that are suited to lithotrity, we find that lithotomy is attended with very little danger and very little pain. I think that, except in a few practised hands, and in the upper classes, it will be found, on the whole, to be less successful than lithotomy, even in the cases that seem most fit for it.

With regard to amputation, it seems a question whether the double flap incision will long survive the skilful hand that gave it a temporary ascendancy. Competitors for favour are rising in the quadrilateral methods of Teale, Spence, and Carden,(d) though they have scarcely yet been sufficiently tried. Many Surgeons are rather falling back upon the old circular mode, which recommends itself by its smaller wound and its much smaller cicatrix, as well as by the greater facility for securing vessels and the less liability to secondary hæmorrhage that attend it. In the commencement of my practice, actuated by the growing feeling of the time, I performed the double flap amputation exclusively. Mr. Lestourgeon usually did the same; and we had the advantage of comparing it with the circular operation, admirably performed by our colleague, Mr. Hammond. The result has been that we have to a great extent relinquished the flap. Still, in the thigh, I think that the double flap or some modification of the flap operation leaves the best stump, especially if the comparison be made after a few years have elapsed; and I still usually adopt it, when amputating at that point, in feeble, delicate persons, having observed that in such cases, where early union is most important, there is less liability to reopening of the stump and protrusion of the bone after the flap than after the circular incision.

The allusion to Liston, just made, reminds me that from the Edinburgh school has proceeded a freer, bolder, yet more precise style of performing operations, which by

(c) I may refer to Mr. Fergusson's plan of removing the fragments, at the time of the operation, by means of a small lithotrite or scoop (described in his recent lecture at the College of Surgeons), which seems to have answered well in his skilful hands.

(d) *Edinburgh Medical Journal* and *British Medical Journal*, April 16, 1864. I have performed Teale's operation in the thigh in six cases. Of these, three (two severe traumatic cases, and the third a case of acute suppuration in the leg and knee-joint—all, therefore, unfavourable cases) were fatal. In one of the three that recovered, there was a tendency to protrusion of the bone through the flap. The two others recovered quickly, and a good stump was gained in each.

him, and by the present Professor of Surgery at King's College Hospital, has been carried to a degree of perfection that will probably never be surpassed; while to the occupant of the chair of Clinical Surgery in Edinburgh we owe the introduction of new and important operations, as well as other improvements in practice. The amputation at the ankle-joint, introduced by him, has preserved many a useful limb; although my own limited experience inclines me, in most cases, to give a preference to the mode of performing the operation proposed by Pirogoff.

Syme's operation for the treatment of stricture I have performed in eight severe long-standing cases; and I am satisfied that the tendency to a recurrence of the disease, though it exists and must be provided against, is less determined, and therefore more easily under the control of the patient, than it is after the ordinary modes of treatment. Nevertheless, we must hope that additional improvements in the process of dilatation, gradual and rapid, will render it unnecessary to resort to incision in the treatment of stricture.(e)

The excision of diseased joints, though not originating with Professor Syme, yet received its first real impulse from his successful cases of excision of the elbow, and has now been so extensively practised, and has excited so much attention and discussion, that we ought to be able to be arrive at some conclusions respecting it. Still, in a question involving so many considerations based, in each instance, upon uncertain data—such as the constitution of the patient, the reparative power in the joint, the relative prospect of recovery after amputation or excision, etc.—positive statements betoken ignorance and prejudice, rather than fair judgment based upon experience. Unquestionably, the introduction of the operation has increased the difficulties and responsibilities of the Surgeon. It is, however, on difficulty and responsibility that true usefulness and dignity are based; and the fear of encountering them will have little effect in deterring the true lovers of our Profession from entering upon new fields of practice and of hope.

The frequent success and slight danger attendant upon excision of the elbow are generally admitted to justify its trial in most of the cases in which amputation would formerly have been performed, as well as in some others.(f) In the shoulder, when discharging sinuses indicate ulceration of the articular surfaces, and the patient's health is failing through this cause, excision offers a good prospect of saving both life and limb, provided the glenoid cavity is removed, as well as the articular end of the humerus. It should certainly be attempted.(g) Excision of the wrist has scarcely been attended with sufficiently satisfactory results in my own practice, or in that of others, to encourage its repetition. Of the three instances in which I have performed it, in one only was a moderately useful limb retained.

Excision of the hip I have not yet attempted. I have proposed it in a few cases which seemed likely to go on to a fatal termination, but have not felt justified in urging its adoption for the following reasons:—First, the question arises chiefly in children and young persons; and we know that instances are not uncommon in which they survive, and the joint becomes anchylosed, so as to bear the weight of the body well, even after extensive destruction of the articular parts has taken place. Secondly, it appears to me that the acetabulum, forasmuch as it is usually as much or more diseased than the head of the femur, should be gouged or sawn out to afford a fair prospect of the wound healing. This would, of course, necessitate more or less interference with the pelvic cavity, involving a liability to suppuration there; and I have felt doubtful as to the prospect, in case of recovery, of the limb sufficing to bear the weight of the body. Moreover, I have not thought the results of the experience of others in this operation, so far as I have been able to glean them, very encouraging.

The construction of the ankle-joint, and the disposition of parts about it, are by no means favourable to excision; and the operation in this part must always be attempted with much hesitation. I have performed it in four cases. In two, good, firm, useful feet remained, enabling the patients to walk well. In a third, the disease was very extensive, necessitating the removal of the whole of the astragalus and navicular bone, as well as the ends of the tibia and fibula; and amputation was subsequently performed. In the fourth, suppuration continued, phthisis ensued, and the patient died six months after the operation. In a lad, in whom I removed the navicular bone with the adjacent surfaces of the astragalus and cuneiform bones, as well as parts of the os calcis and cuboid bone, the recovery was complete; and, four years afterwards, he could run about as though nothing had happened; indeed, it could scarcely be credited that so large a part of the instep had been taken away.

But it is in the knee that the great triumphs of excision have been obtained and are to be won—perhaps the greatest triumphs of modern Surgery. How often has one lamented that the whole lower limb should be sacrificed by incurable disease of this joint! and how often has life been sacrificed rather than the mutilation of amputation should take place! How have we all longed for some substitute for that mutilation, some mode of clearing away the hopelessly diseased parts and yet leaving a serviceable limb! Yet how reluctant a reception has this operation met with! How many objections were thrown at it! It would be fatal in its issues; the diseased parts could not be thus removed; the wound would never heal, and the bones would never grow together; the limb would be useless; the disease would return; the limb would not grow. I must acknowledge to having once entertained these prejudices myself, and I was only induced to a trial of the proceeding by its favourable results in the practice of Mr. Jones, of Jersey. Since that I have performed it in thirty cases—an experience which is probably greater than that of any other person except Mr. Fergusson, to whom, I need scarcely say, we are indebted for the revival of the operation. Six of my patients died. Of these, one was a case of acute suppuration of the knee in a child—a case unfavourable for any kind of treatment; another was a severe contused wound of the knee; and another died from hæmatemesis when in other respects going on well, and appearing likely to make a good and quick recovery, the fatal result not being, so far as we could judge, at all attributable to the operation; and three sank after amputation consequent on the excision. Five others underwent amputation and recovered; and the remainder—that is, nineteen—regained very useful limbs.

The general conclusions at which I have arrived from the observation of these cases, and much thought and reading on the matter, are, that in the cases in which the condition of the joint is such as directly to imperil life—severe acute suppuration, for instance—amputation should commonly be performed, but where the condition of the joint is such as to undermine the health gradually, and so endanger life only indirectly, or merely to destroy the usefulness of the limb, excision should generally be resorted to.(h) This latter class of cases, let me remark, where life is spared, but the usefulness of the limb is lost, forms no inconsiderable or unimportant a class, especially among the agricultural poor. In them the type of disease is not, for the most part, acute, but enduring and recurrent. Inflammation of the knee creeps on month after month, arrested by occasional treatment in Hospital, but not ceasing until the joint is so marred as to be unable to bear the body and permit the movements of the limb. It is little satisfaction that the diseases now ceases, or is cured as we may be pleased to call it, if the limb remains a burden and a drag, instead of being a propellor of the body; and we feel no pride in seeing these crippled members carried about our streets. In the greater number of such cases, usefulness may be preserved or restored to the limb by excision, performed during the progress of the disease, or soon after its cessation; and, as far as my own experience goes—and I have tried a good deal—this cannot be

(e) The performance of the operation by subcutaneous incision, as proposed by Dr. Dick at the Royal Medical and Chirurgical Society, June 14, may be an improvement upon the mode in which it has hitherto been done.

(f) I have excised the elbow in twelve cases. Of these, nine regained useful limbs; three did not do well, being sickly persons, and dying of phthisis from six months to a year after the operation.

(g) I have excised the shoulder in three cases. Of these, two recovered with very useful limbs; the third died, not long after the operation, of acute phthisis. It may be observed that the reparative powers in the upper limb are greater than in the lower, while its exposures to injury are less, and its opportunities for repose are greater. Hence, a given amount of disease in it is, proportionately, more indicative of constitutional debility than in the lower limb. This should be taken into account in considering the question of excision in the upper limb; and it militates, to some extent, against the operation. The truth of this remark is entirely corroborated by my own cases, so far as they go; forasmuch as the failure of excision in the upper limb was, in each instance, due to a phthisical or unhealthy state of the patient.

(h) I am supposing that they are cases, in other respects, fitted for excision; that is to say, that disease does not extend into the shafts of the bones, and that the patient's health is such as to render it probable that he will bear the operation, and the trials from suppuration, confinement to bed, etc., that are likely to follow it. The cases of scrofulous disease of the synovial membrane, which form a large proportion of the diseases of joints in this district, are, for many reasons, not favourable for excision, but should not be excluded from it.

accomplished with anything like the same good effect in any other way.

The excellent results of successful excision will not be questioned by those who have seen the patients walking and running about after the bones have become firmly united; and they will have perceived that all ground for apprehension of a return of the disease is excluded. With regard to the important question of the danger of the operation, I am probably making a fair statement in saying, that in acute cases it is rather greater, and in chronic cases rather less, than that of amputation under corresponding circumstances; whereas, in the important class of cases just mentioned, where disease has subsided after destroying the joint, and where the operation is undertaken for the purpose of reclaiming the limb to service, I think it will prove that the risk from this, as from most other operations upon bones, is very slight.

The various questions relating to this operation have, however, recently been so fully and so ably discussed by him who is best able to give an opinion upon them (i), that I will detain you no longer upon it, and will merely further observe with reference to excision of joints—first, that it is very desirable—I do not say essential—to remove all the diseased joint structures, the synovial membranes, the cartilages, and the bones; and this combines with other causes to render cases in which the affection is chiefly synovial the least favourable for the operation. Secondly, the surrounding tissues, being only secondarily affected, may be left, and will be sure to recover their natural condition, however much they may be thickened or traversed with sinuses, when the source of their irritation has been removed.

The remark, gentlemen, that an operation is a disgrace to Surgery, has doubtless often grated upon your ears, as it has upon mine; and you have felt it to be either one of those truisms that need not be uttered, or one of those statements, plausible rather than true, that ought not to be made. True, it is only in the same sense that the imperfection of knowledge is a disgrace to man, or that the destructiveness of disease and the tendency to death are a disgrace to nature. While these remain, operations, well conceived and carefully performed, far from being a disgrace, will be an honour to Surgery, and will furnish the greatest triumphs to our art. Advancing knowledge, instead of diminishing, serve to increase their number; for, though it shows some to be unnecessary, it introduces more. It gives us, I grant, a fuller insight into the resources of nature, and a greater reliance on them. It tells what we may leave to her, where we may assist and direct her; but it tells us also of her failures and her aberrations, and shows us more clearly where we should interpose to arrest her processes and to remove their products. While, on the one hand, we learn that popliteal aneurism may often be cured by pressure upon the artery or by flexure of the limb, we find, on the other hand, that the annoyances and dangers of hernia may sometimes be judiciously averted by an operation for its radical cure; that clefts in the palate may be closed, vesico-vaginal fistulæ stopped, prolapsing wombs retained, etc.

By nothing, probably, has the range of operative Surgery been increased so much, and so usefully, and so safely, as by the introduction of subcutaneous incisions, attended with a knowledge of the mode in which healing, under these circumstances, takes place. The application of the principle to tenotomy has enabled us to make amends for some of nature's shortcomings, has planted many a foot upon the ground which would otherwise have remained curled up and clubbed, and has restored many a squinting eye to vision and to beauty; while the reduction of dislocations and fractures has been facilitated, and various other deformities have been rectified.

In the treatment of club-foot, my own plan differs somewhat from that usually recommended. In the first place, instead of making two or more operations, I divide at one time all the tendinous structures that seem chiefly to interfere with the proper position of the foot. These, in varus, commonly are the tendo Achillis, the plantar fascia, the tendons of anterior and posterior tibial muscles, and of the common flexor of the toes. Secondly, I bring the foot into its normal position at the time of the operation, and fix it there. I have not found any failure of union of the divided parts from this; and a quicker, and, I find, better result, is obtained by it. Thirdly, I do not use Scarpa's shoe, or any other complicated apparatus, but merely a well-padded splint, secured on the side of the leg; and fix the foot in position by its means, with plaster and bandage. It is necessary to do this very carefully, and to protect the leg and foot with cotton wool; and the whole is removed and reapplied daily for the first few days. The earlier the operation is done, after the first month, the easier is the treatment, and the quicker the cure.

That a proceeding so easy and so often successful as tenotomy should be pushed to excess, is only what we must expect. Tenotomy has, no doubt, been rather too frequent of late, and has diverted us from the good effects which may be, and which in olden time often were, obtained from extension well applied and perseveringly maintained. By recalling us to this practice, and showing us how it may be better carried out, and by reminding us that tenotomy is only the auxiliary to orthopœdic treatment, Mr. Barwell has recently done good service. (k)

Let me here observe, that the effect of extension in subduing muscular spasm, and so inducing rest, which has its familiar illustration in the stretching out of the leg for the cure of cramp, is a most important principle, explaining some facts with which we were before conversant, and giving us certain new laws to regulate the position of diseased joints and limbs. Observation had already told us that the straight posture was the best for a fractured thigh. We now know that it is so, because in it the flexor or more powerful muscles are extended, and are, therefore, at rest. A patient suffers under diseased hip or knee, with, perhaps, ulceration of the cartilages. The agony is severe, and greatly aggravated by involuntary movements or spasms of the limb. The joint becomes bent; and the more it is bent, the more frequent are the startings, the greater the distress, and the quicker the progress of the malady. We administer chloroform, extend the limb, fix and support it carefully in that position by splint and bandage; and it not unfrequently happens, that immediate relief is given, a night of sleep follows, and the disease is arrested. The principle may be carried out under various circumstances, and in other joints. Indeed, the plan of fixing the limb in the extended position is, perhaps, the greatest improvement that has been made in the treatment of diseased joints. If I mistake not, it was first adopted by Mr. Key in affections of the hip-joint. By combining the two requisites of steadying the joint and quieting muscular action, it is in complete accordance with the views so fully and ably advocated by the late Professor of Surgery at the College of Surgeons.

Ovariotomy may now be said to have fairly run the blockade, and to be surely anchored in the harbour of legitimate Surgery; and the success which has recently attended it in the hands of Clay, Spencer Wells, Bird, Baker Brown, and others, constitutes it one of the greatest achievements of British Surgery—so great as at length to have excited the emulation of our brethren across the Channel, though it has hardly yet gained a place in our own metropolitan Hospitals. That it has been slowly received in these Hospitals, where men are hard occupied in combating disease in other forms, and are compelled to show a tendency to limit rather than extend their range of work, is no wonder. Fully aware of the great uncertainties, difficulties, and dangers inseparable from this grave operation, before undertaking it I went carefully over the whole ground, literary and pathological, examining the specimens in various museums, and collecting all the recorded cases I could find. I came to the conclusion that the prospect of success is, on the whole, proportionate to the fluidity of the tumour; that where it is solid the operation should not be attempted at all; that where it is fluid, and the patient young or middle-aged—that is, in the most favourable cases—the prospect of success is about two to one. This, or a lower average of success, I thought sufficient to justify the operation in the ordinary run of cases, where the disease ad-

(i) See report of Mr. Fergusson's lecture at the Royal College of Surgeons, in the *Lancet* of July 16. I can quite endorse Mr. Fergusson's opinion that amputation has in many cases been performed after excision when the limb might have been saved by longer patience, and, perhaps, further incisions to lay open sinuses or remove diseased bone. The dissection of some of my own early cases proved that I had been too hasty in removing limbs; for the disease turned out to be much less than I expected. Acting upon the information thus obtained I have, by secondary incisions, saved some limbs after excision, which, at an early period of my practice, I should have amputated.

(k) The view of the etiology of congenital club-foot taken by Eshricht, which attributes the malformation to an imperfect unfolding or unrolling of the limb during the fœtal state, does not appear to me quite satisfactory. I think no one can examine the distorted part without being convinced that there is something besides this—that an abnormal contraction of the muscles on the hinder and inner side of the foot is, at least, an important element in the matter. Moreover, the early fœtal position of the foot is rather that of talipes than of varus; whereas, we know, talipes is very rarely congenital, and varus is so very frequently.

vances steadily, and is likely, after some months of misery, to terminate fatally. My success, however, has hitherto not equalled the average I deduced from the practice of others. Of four cases one only recovered. She has since married and borne children. One died of tetanus after she had apparently passed the ordinary dangers of the operation; and two others died, after a few hours, from hæmorrhage and peritonitis consequent on the division of extensive adhesions.

Of that strange disease, syphilis, which seems to have a close relation to the gregariousness of men, and which becomes of increasing frequency, and therefore of increasing importance and interest, with the growth of our large towns, which forces itself upon the attention of the statesman and the moralist as well as of the Pathologist and the Surgeon, and which has proved a puzzle to them all, no less than to the historian—we have gained great additions to our knowledge, but I think not proportionate improvement in our treatment. If, as has been remarked, secondary and hereditary manifestations are more common than they formerly were, this may be due partly to the greater frequency of the malady; but may it not be also partly due to a less definite treatment of the primary indication, which is a consequence of the different views that have been promulgated? The mercurial plan, especially for the indurated form, is again in the ascendant, and, I think, deservedly so. Regarding the primary sore or spot as the continuing source, as well as the origin, of infection to the system, we can have no question of the importance of eradicating it as quickly as possible; and what we especially require is some more rapid and effective means of doing this. The milder caustics seem to me simply to increase the amount of induration; and the severer ones, even when freely applied, very often fail to destroy it. I was accordingly led to try the removal of the sore with the knife, when it admitted of being easily and completely insulated—in the cases, for instance, of chancre on the prepuce, especially near the margin, or on its exterior (and in this latter situation they are, in my experience, peculiarly liable to be followed by secondary symptoms). I am, in such cases, in the habit of removing the prepuce. The earlier it is done, of course, the better the prospect of complete eradication of the malady. Even at a late period, when secondary symptoms have set in, the primary lump still being large and hard, I have sometimes followed the same course, believing that the removal of that, which seems to be, not merely a source, but a maintainer of infection, would facilitate the cure of the patient; and I have found reason to be satisfied with the practice under these circumstances. The wound has in every instance healed kindly. I would warn those who may be disposed to resort to this summary method, that the incision should be carried quite wide of the base of the sore, so as to include a clear and considerable margin of healthy skin and tissue with it; for in this, as in cancer, the influence of the disease extends for an uncertain distance around its apparent site; and I have, in some instances, been disappointed at the recurrence of induration in the cicatrix, when I had not been sufficiently careful on this point. (1) I would warn them also against giving too strong an assurance of immunity from a subsequent appearance of the disorder; for it is impossible to tell when the infection of the system begins, and whether, therefore, in any particular case, it has taken place; neither do we know what is the period of incubation, or whether there is any regular period; and I have seen secondary symptoms commence after the wound caused by ablation of the primary sore had healed with a sound soft cicatrix. They have, however, been slight. I think the prospect may be represented thus: If induration has not taken place, or is only commencing, the probability of an appearance of secondary symptoms, after the complete removal of the sore, is very slight; and, if they do appear, they are not likely to be severe. If the induration has set in, the operation will diminish the probability of their occurrence; and if they, in addition, have already appeared, it will facilitate their cure. After all, however, this treatment is applicable only to a few cases—to those, namely, where the prepuce or the exterior of the penis is the seat of the primary disease. I have not tried it in the female.

One's anxiety to quench at once, and as early as possible, the first spark of the disease, has, of late, been greatly heightened, in consequence of the disclosures, by Mr. Hutchinson, Dr. Wilks, and others, of its persistent vitality, smouldering on from generation to generation, interfering with development and nutrition, imprinting its tell-tale marks upon the teeth, the nose, and other parts, exciting or modifying disease in the organs of sense, the skin, and most of the internal organs, and bursting out, in the original sufferer or his descendants, in a variety of ways, and at protracted periods. These impress upon us more strongly than ever the conviction that the combined influences of Law, Physic, and Divinity are urgently needed to arrest the evil, and to prevent its deteriorating influence upon our race. It is possible that these views are exaggerated; and it must take more years of the patient investigation of many persons to analyse with precision the influence of this subtle virus upon the nutritive processes.

And along, or near by, the path of that investigation lie some of the hardest and most interesting questions in pathology—questions as to the origin, communication, and extension of disease—questions as to its relations with the nutritive and formative processes—questions as to the part which the blood and the tissues have in holding and in developing it—questions of the kind represented by the humoralism and the solidism of our forefathers. Let it not be thought that such questions—theories, if you will—respecting the nature of disease, are far beside the practical work of curing it, though they may seem to be so; and though, to excuse ourselves from the trouble of entering into them, we are willing to think that they are so, I feel sure it is quite the contrary. Good practice is ever closely allied to good theory; and it is hopeless to look for improvement in the one without advance in the other. Discoveries may appear to be accidental. They crop up, as it were, unawares and unexpectedly; but they have their laws; and one of those laws is, that they are usually made when the time—that is, the mind of the age—is ready for them. Hence, the same discoveries are often made by several persons contemporaneously. Or, if a discovery be made prematurely, before the time is rife to appreciate and take advantage of it, it dies out and is forgotten, to be re-born in its proper season. Hence, the pathologist who, in his study, with microscope and crucible, investigates the obscure processes of disease, and gives us deeper insight into its mysteries, is combating it no less truly and effectually, though less obviously and less directly, than the Surgeon who is fighting it hand to hand, in the hospital wards. The one primes the gun, the other fires the shot.

Indeed, to the direct practical work of Surgery, that branch of pathology which we call morbid anatomy is scarcely second in importance to healthy anatomy. It is essential to anything like precision in diagnosis and confidence in treatment; and it is always a matter of regret to me that it is so little pursued in our schools, and that our rich museums are made of so little use to our students. I have even heard eminent Surgeons discourage their pupils from working in them. I am sure that those who have acted in opposition to such advice will agree with me that some of their most valuable knowledge was acquired from the study and comparison of specimens in museums.

And to the science of Surgery, I need scarcely say, that pathology, in all its branches, is the very corner-stone. It is only by a close observation of the manifestations of disease that we can hope to obtain an insight into its real nature. In this work, the microscope is doing vast service, opening up new regions of observation and thought; and teaching us more and more of the close connexion between pathology and physiology—a connexion first fully recognised by Hunter. Through the revelations of the microscope, we are seeing, more and more clearly, that disease is not a thing foreign, or additional, to the body, so much as an evolution from it; in other words, that it does not consist in new processes, but rather in modifications of the old or natural processes; and, therefore, that the parasitic theory—the theory of the insertion, incubation, and proliferation of exogenous germs—is becoming less and less generally applicable. We learn that inflammation, and many other morbid processes, consist in a *plus* or *minus*, with slight variation, of the ordinary circulatory and nutritive processes. We are coming to more sure conclusions, through the researches of Virchow and others, that the pus-cell is but a variation of the areolar or epithelial cytoblast. Moreover, careful observation of the components of cysts and tumours, even of those most destructive in their effects, and apparently

(1) This, taken with the fact that I have never known induration in the cicatrix to follow when the incision was made well beyond the range of the chancre, militates, to some extent, against the growing opinion that induration about the primary sore is an evidence and result of constitutional infection. I find from an excellent paper on Syphilis, by Dr. Veale, in the *Edinburgh Medical Journal* of last month, that he has been in the habit of practising the excision of chancres, with good result.

most foreign to the ordinary structures, brings out such close resemblance to the natural elements of the body, in their intimate composition and mode of growth, as to confirm the view propounded some years ago by myself (m) and, probably, by others, that they are not new growths, or additions, but merely out-growths, or hypertrophies, with more or less modification, of the natural tissues; in short, that there are no new structures produced in the organism by disease. In the words of a recent writer, "heterologous tissues have physiological types; and there is no other kind of heterology in morbid structures than the abnormal manner in which they arise as to place, time, and quantity."

If this be so, it almost follows that disease spreads, not by the propagation and dissemination of germs, but by impressing upon the nutritive processes and adjacent tissues, or in other parts of the body, of a tendency to like variation with its own; that is to say, by assimilation or fermentation, rather than by germination. Thus, inflammation spreads, like excitement in a mob, by the extension of the disorder from cell to cell and from vessel to vessel; and suppuration at one part may, especially in particular states of the system, induce suppuration at other parts. Thus, cancer grows by moulding the adjacent growing elements into its likeness; while the cause which first gendered it, the constitutional predisposition, or whatever it may be, facilitates this influence over the immediate circumference of the disease. The communication of a disorder by inoculation is analogous to the effect produced by a ferment; and that by contagion resembles the influence exerted by a decomposing mass in a larder.

But I must not stray into these pleasant paths of theory. Not, as I have before said, that they are without their practical import; and I am sometimes tempted to think that the view of disease just taken does seem to shed a dim, distant glimmer of hope upon that black and desperate disease which is the most grievous curse of our species and the saddest opprobrium of our science, the great emblem, and may we not say also, a great agent of evil. If cancer, after all, be the result of a modification of the ordinary processes of nutrition, may we not indulge a hope that, when those processes and that modification are better understood, some mode of control may be found, some means discovered, of arresting the disorder and of restoring health? When helplessly watching the sinking frame racked with this horrible malady, one feels that the remotest prospect of finding a remedy, or even of clearing the way to that knowledge of the malady which may lead to a remedy, is stimulus enough to urge on the pathologist through years of patient work.

There is scarcely a single page in the book of pathology which has not received additions, or undergone revision, within my own knowledge; while some long and important chapters—such as those on fatty degeneration and blood-clotting in the living vessels, with embolism, and all the consequences resulting from them—are altogether new. The thinking over what has been done, like the gloating over the recollections of a feast to the glutton, makes us yearn for what is to come. And, perhaps, in no direction are my own yearnings so strong as in that of the desire to know something of, and to be able to do something in, tetanus. I speak of acute traumatic tetanus; for in the chronic and idiopathic forms of the disorder, as we all know, the patient, if carefully tended and well fed, not unfrequently recovers. But never do I feel so utterly depressed—depressed with the double feeling that I can do nothing and that I ought to be able to do everything as when that horrid grin tells that the malady has commenced and is proceeding quickly. Hoping against hope, after so many disappointments, I try what has been reported to do good in the hands of others, only to be again disappointed, and come to the conclusion that the prospect of recovery in any case depends upon the power of the patient to wear out the malady rather than upon anything that I can do to mitigate its force. What is it? and where is it? Is it in the blood? in the nerves? or in the muscles? Surely science will one day point it out, its dwelling, and its nature, and help us to dislodge it.

Let me not forget thankfully to acknowledge that for the great progress in pathology and minute anatomy we are chiefly indebted to the persevering labours of Germany, more particularly to the professors in the German universities, whose position, and simple habits, and moderate pecuniary ambitions, combine to induce a life-long devotion to such subjects. Among ourselves, pathology and other branches of our science are, as I have already said, more commonly cultivated with an eye to their practical application, and are early deserted for practical work. In it, therefore, we ought to excel; and my own observation in most of the important French, German, and Dutch Hospitals, makes me bold to think that we do so; that our patients are, on the whole, better and more carefully treated, with less of meddlesomeness and interference with Nature's ways, and with more consideration for the avoidance of pain and the promotion of their real comfort and welfare. The ingenuity and delicacy of manipulation of the French, together with their quickness of apprehension and good spirit, the painstaking and kindness of the Germans, and the quiet good sense of the Dutch, are worthy of all admiration; and, as belonging to their respective national characters, are peculiarly suited to the temperament of the patients they severally have to treat. Each nation contributes the produce of its own peculiar genius. To the enterprising spirit of America we are indebted for the inestimable boon of anæsthesia; to the ingenuity of France we owe the écraseur of Chassaignac,(n) and various instrumental improvements; from Germany have come the ophthalmoscope of Helmholtz, the laryngoscope of Czermak, and great additions to every branch of pathology; while the persevering ability, the courage, and practical discernment of Britain may lay claim to most of the great improvements which have recently been effected in the Surgical treatment of disease.

Nor must I conclude without an allusion to a feature which promises much for the welfare of patients in all classes of society, and in our Hospitals in particular; a return to one of the best elements of the days of chivalry, and an instance of the good offices which the Church Catholic has, in all ages and all her vicissitudes, tendered to the poor and the sick; a feature with which the name of Nightingale will be long and thankfully associated. Let me not be thought wanting in appreciation of our present nurses. They have done much. Indeed, I do not think that they receive, at the hands of the public, the gratitude and consideration which they deserve, and which would encourage them to the still better performance of their arduous and self-denying duties; and I often wish that our great portrayer of human character, whose popularity and excellence rests, in no small degree, upon the sympathies which he enlists for the humble and the deserving, had made the *amende honorable* to these useful and hardworking, but, by him, severely represented, persons. Still, we can scarcely over-estimate the moral and physical benefits that may be anticipated from the devotion to such duties of a higher class, gifted with a better education, actuated by a nobler feeling, and well-trained for their work; while, to many in that class, the work will afford, not merely a maintenance, but an occupation and a home. Already the system is beginning to bear good fruit; and some of the best appointed of our Hospitals are evidence to its success, and give encouragement to its more general trial.

In this address I have not attempted anything like a systematic review of all that has been done, even in my own experience. Such an essay, I had not the time nor the disposition to undertake; and the nature of these addresses is wisely left to the judgment and disposition of those to whom you entrust the honourable task of delivering them. I have merely touched upon some points, and upon those cursorily and imperfectly, my object being, chiefly, to impart my own thoughts and feelings upon them; and this must be my excuse if I have seemed desultory and egotistical. I would that I could make you an offering more worthy the occasion, for I know how to value, if I do not know how to improve, the opportunities which these annual meetings afford; and I know that the addresses delivered at them, in past years, have been a source of much interest and instruction to many hearers and readers. To myself they have been more than that. The first spark of professional zeal, and the first real impulse to work, I owe to the perusal, nearly thirty years ago, of one of the earliest of these

(m) Lectures on Surgery, in the *Provincial Medical and Surgical Journal*, 1850 and 1851.

(n) Perhaps the most really useful application of the éraseur is for the removal of polypus of the uterus. In that I have found it peculiarly advantageous. A few weeks ago I removed with it a fibrous polypus, larger than a child's head, with a thick neck, quite beyond the reach of the finger. The mass was extracted by means of midwifery-forceps, after its neck was cut through with the éraseur. No bleeding or unfavourable symptoms followed; and the patient is quite well. I have repeatedly removed internal hæmorrhoids with the écraseur. In one case, in which I was present at the operation, severe hæmorrhage ensued; and it was necessary next day to insert needles and encircle the bleeding surface with ligatures. The patient did well. In operations upon the tongue, and occasionally in the removal of tumours, I have found the instrument of great service.

addresses, delivered by one of the first and most earnest members of this Association, the founder of the East Anglian Branch, one of the most incessantly energetic of men, and one of the best of Surgeons—I mean the late Mr. Crosse, of Norwich. His strong desire that the Association should meet in Cambridge has at last been realised; and the pupil's feelings to the master forbid my allowing the event to pass away without this slight tribute to his memory.

I think, gentlemen, that the profession of Surgeon is one of peculiar difficulty and anxiety. The requisites, physical and mental, for real success in it are, perhaps greater than in any other; and our failures are more directly apparent, often more distinctly traceable to ourselves, more startling, more shocking, and, I suspect, more disturbing to peace of mind. But the balances of human happiness are pretty evenly swung; and in the opposite scale, we are able to place the satisfaction resulting from a vast amount of suffering prevented, of functions preserved, and life prolonged. This might be enough; but we have also the still greater satisfaction of feeling that, forasmuch as the higher and better part of man—the psychical or moral—is closely connected with and, to some extent, dependent upon the lower, or physieal, and the perfection of the one has a near relation to the perfection of the other; so a good done to the body has a deeper and more enduring effect than may at first appear. Its influence passes beyond the corporeal, and extends into the regions of the spiritual. "We are accustomed to speak of the moral advantages and opportunities attendant upon sickness and infirmity; and we do so rightly, for every condition has its opportunities; but I have no question that those attendant upon health and soundness of body are greater. A damaged body is a moral disadvantage. Reason tells us that it should be so; and experience tells us that, on the whole, it is so; that the *mens sana*, using the phrase in its widest and best sense, is most to be found in *corpore sano*. Such a view sets the greatest value upon health, and holds in highest estimation the profession whose work it is to maintain and to restore health. It shows us that every disease cured and every limb saved is a blot removed from the face of Nature's noblest work, and is a help to man's march along the steep and rugged road to Heaven."

List of Members present at the Cambridge meeting of the British Medical Association, August, 1864:—

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Anstie, T. B. Esq., Devizes
Armstrong, J., M.D., Gravesend
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Barry, J. Milner, M.D., Tunbridge Wells
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Begley, W. C., M.D., Hanwell
Bell, Rev. D., M.D., Goole
Bottomley, George, Esq., Croydon
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Branson, F., M.D., Baslow
Bridger, John, Esq., Cottenham
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Cormack, J. R., M.D., London
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Crosse, T. W., Esq., Norwich
Curling, T. B., Esq., F.R.S., London
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Davey, J. G., M.D., Northwoods
Day, W. E., Esq., Bristol
Day, W. H., M.D., Newmarket
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Erichsen, John E., Esq., London
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Foster, B. W., L.K. & Q.C.P., Birmingham
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Girling, G. L., Esq., St. Ives
Goodeve, E., M.B., Clifton
Goodwin, J. W., M.D., Bury St. Edmunds
Gould, H. M., Esq., Wateringbury
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Grant, A., Esq., London
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Wyman, George, Esq., Alcester
Wyman, H. S., Esq., Hatfield Broad Oak

Abstracts of all papers and cases read at the meeting will be rendered, after revision by their authors, in one complete article, in our next and concluding report.

FOREIGN CORRESPONDENCE.

DENMARK.

(*From a Correspondent.*)

COPENHAGEN, July 31.

THE war in Denmark, after several months' duration, may be considered at an end. To-day a further extension of the armistice has reached this city; and it is confidently expected that another will soon follow—the belligerents agreeing to a suspension of hostilities for nine months.

A month has elapsed since the last engagement of any importance; consequently the wounded, of whom there have been many thousands, have either passed away to the common goal, are under treatment, or have recovered. For the past week we have been daily among the Hospitals, and have received a very kindly welcome from our brethren of the Medical and Surgical Staff. We, therefore, communicate with much satisfaction the results of our observations. Few cases remain at the immediate seat of war, as it was feared, should the enemy attack the advanced line, the occupation of the Island of Fünen would follow, and then the removal of the Hospital tents and other additamenta would obstruct the retreat to the mainland. It is for this reason, therefore, that nearly all of the cases under treatment are here, occupying the usual military Hospitals, castles or fortresses fitted up

specially as Lazarettes, or, in several cases, royal residences devoted to such purposes.

The general principles of treatment have been in keeping with the most advanced Medical and Surgical views—sustaining and conserving. Cleanliness and ventilation of the tents and wards have been generally regarded; but in a few cases there appeared to be some lack of fresh air. This is, however, a common failing with the people, who are too fond of close apartments. As a contrast, however, to this, we saw many patients under the shade of trees in their beds or couches, and others enjoying an abundance of fresh air. No city in the world has more shady avenues or gardens in connection with the Hospitals than this: and they are a great boon to the convalescent. Water dressing is the common treatment for wounds, moderate bandaging with simple splints and vulcanised wire rests, with due regard to elevation, are everywhere seen. The diet is good, and, save the black bread, was acceptable even to our English palates. Excisions have been the rule—to save ever so little of a member; amputations the exception. Jack Frost has sadly marred many a well-formed Dane; but the grenades have done the most fearful mischief. Düppel and Sunderbond yielded the worst cases. Rest, fresh air, and the other aids of our art and science, with the help of nature, have done, and are yet doing, much to recover these cases.

Ice is most extensively used in cases of ophthalmia and active phlegmons. Vulcanised india-rubber pillows give comfort to many; and what cheered one much was the well-bearing and uncomplaining character of all the sufferers. The Danes are all well educated, and were found well supplied with books, chess, draughts, and other amusing games.

We doubt not that the Medicine and Surgery of the war of the Duchies will add to our common stock of sound practice.

GENERAL CORRESPONDENCE.

THE TREATMENT OF DELIRIUM TREMENS.

LETTER FROM DR. C. HANDFIELD JONES.

[To the Editor of the Medical Times and Gazette.]

SIR,—Will you kindly allow me space for the following short rejoinder to a communication from Dr. Laycock which appeared in your journal for July 30? In reply to his first observation, I have to say that I still think the general tenor of his instructions, especially as illustrated by the cases recorded in his first paper, is to rely mainly on the remedial powers of nature. I stated plainly that he allowed the use of alcoholic stimulants, but it is clear that if, as he says, he excludes neither these nor opium when there are rational or reasonable indications for their administration, he approximates materially, if not closely, to the ordinary practice of the present day, in which, as far as I am aware, neither are given in any inconsiderate manner.

With regard to his second observation, in which he almost seems to accuse me of wilful misrepresentation, I must say that I do not consider a person to have delirium tremens unless he is more or less delirious—(Dr. Watson says "there is delirium always")—and, therefore, that I cannot have wilfully confounded Dr. Ware's estimation of the length of the paroxysm, and Dr. Laycock's of the length of the disease. To my mind the disease does not really begin until the paroxysm begins. Premonitory symptoms more or less marked often exist in drunkards without being followed by the actual disease. I think it is by no means correct to state, as Dr. Laycock does, "In this disease we note the primary stage and the developed stage, just as in small-pox we note the initiatory fever and the day of eruption." I think the tenor of Dr. Laycock's instructions in many places is to lead us to regard the existence of delirium as a matter of small moment not requiring any special means for its removal, and, therefore, I cannot agree that the passages which Dr. Laycock cites from my work are unwarranted.

Under his third head Dr. Laycock refers to a case cited by me from the practice of an eminent Physician, and says he would not have described it as delirium tremens, but as delirium ebrietatis, which would be slept off as a matter of course. I have the authority of this gentleman for stating that this is not a fair account of the matter; the disorder was of a much more serious kind. I see that Dr. Laycock does distinguish delirium ebrietatis from true delirium tremens, and, perhaps, I have not given him sufficient credit for doing so, but I still think he does not do it in the same marked way as Blake, Copland, and Marston.

As to the fourth point, the essential cause of delirium tremens, I may have, in some measure, confounded Dr. Laycock's view with that of Drs. Pirrie and Peddie, and I thank Dr. Laycock for correcting me. It is an important point to recognise that the disease is not a specific toxæmia, as some regard it, and I am glad to have Dr. Laycock's confirmation of the opinion generally entertained. The passage respecting the delirium of fever and its fatal tendency which Dr. Laycock cites from my work, refers to the statements in Dr. Watson's "Lectures," vol. ii., p. 717. As some proof of the ill effects of sleeplessness, I may cite the experience of an Indian officer, a man of vigorous frame, who told me that he was always able to stand the heat of the day so long as he got sleep at night, but if his rest was disturbed he broke down. Sir R. Martin and others notice deprivation of sleep as predisposing to sun-stroke. I am, &c.

C. HANDFIELD JONES.

Green-street, Park-lane, August 6.

MR. FERGUSSON'S LECTURES—EXCISION OF THE KNEE-JOINT.

LETTER FROM MR. HENRY SMITH.

[To the Editor of the Medical Times and Gazette.]

SIR,—Mr. Hussey, of Oxford, has followed in the wake of several other Surgeons, and has taken Mr. Fergusson to task for the opinions enunciated by him in the lectures lately delivered at Lincoln's-inn, which have deservedly excited so much attention. I know well that Mr. Fergusson has neither the inclination nor the time for entering into controversy with those who have criticised him, and as one taking "a great personal interest" in the question of excision of the knee, and to whose humble labours in endeavouring to work out this question the lecturer kindly referred, I must beg to reply to Mr. Hussey, who inquires whether "such an operation (viz., excision) as a mode of treatment is better than that recommended by his predecessor, Mr. Hilton, and in what respects he commends it in preference." Mr. Hussey then proceeds to enumerate the virtues of rest and position in diseases of joints, with which the merest tyro in Surgery is thoroughly well acquainted, and from the tenour of his remarks he assumes, or rather hints, that Mr. Fergusson cuts out knee-joints, and that others amputate thighs when an operation is not necessary.

Now, it appears to me that Mr. Hussey has, to use a phrase adopted by a recent military authority, laboured under a "misconception" as to the point discussed by Mr. Fergusson, who,—as far as I can understand, after hearing the lecture delivered, having subsequently read it, and prior to its delivery having had opportunities of learning the opinions of the lecturer,—was not discussing the subject of the treatment of diseases of the knee-joint, but was submitting to his audience the comparison between excision of the knee-joint and amputation of the thigh in incurable disease of that articulation.

It was assumed by the lecturer that certain cases are met with where an operation of some kind is necessary to save life—in short, that the disease was incurable, as Mr. Hussey admits, in a small number only; and this question was, what is the most appropriate, least mutilating, and most scientific operation—excision or amputation? It is impossible that the lecturer, starting from the point he did, and confining himself to the question proposed, could, with any propriety, institute any comparison between excision and the "treatment by rest and position;" for, if not far in the wrong, I think that Mr. Fergusson was not referring at all to those numerous, very numerous, cases of disease of the knee-joint where a recovery will take place under the influence of rest and position, and appropriate Surgical and hygienic treatment. "I am not now discussing the question of amputation, or continued, and possibly other, treatment to save the limb. It is the question between excision and amputation as regards the future condition of the limb." Such are his words. Mr. Hussey, even with all his admiration for rest and position, admits that there are a small number of cases of diseased knee-joints which may be classed as incurable. Mr. Fergusson assumes the same, and it is to this minority of cases that he, in common with other Surgeons, applies the supreme remedy for the purpose of saving life. In all these instances rest and position have been previously and extensively tried until

it has become obvious that further attempts are useless. I cannot myself find a sentence in either of the two lectures which would justify any one in supposing that Mr. Fergusson was recommending excision as a mode of treatment for diseased joints which may be cured by other means, or was disparaging or undervaluing the influence of rest and position. Had this lecturer made the treatment of knee-joint disease the subject of his discourse, I doubt not we should have been furnished with many illustrations of the efficiency of "rest and position" in bringing about a cure; but the lecturer tells us as plainly as he can do so, that he was discussing the question of excision and the comparison between that operation and amputation.

It is plainly evident now that excision of the knee-joint in instances of incurable disease or unmanageable deformity has become an established operation in Surgery, but it may be damaged by hasty or incautious operators. On the other hand, I believe the results will be more and more satisfactory in the hands of those who employ it only as a last resource, and select their cases with prudence and judgment, and these will be found to be the very men who will place the greatest reliance upon the efforts of nature, and will test to the utmost the treatment by "rest and position;" but so long as instances of incurable disease of the knee-joint present themselves requiring an operation to save life, there rest and position, even in the hands of the most patient Surgeon, must give way to more energetic measures; and I think it is the bounden duty of all of us who have to treat such cases to follow the example of Mr. Fergusson, and endeavour to ascertain, both for the benefit of the poor patient and for the credit of Surgery, whether the removal simply of the diseased portions of bone, or amputation of nigh the whole extremity, be the best or most humane proceeding. This is the grand question. With regard to the value of rest and position, Surgeons have been in accord years since, but these measures apply to curable, not incurable, disease. I am, &c.

Caroline-street, Bedford-square. HENRY SMITH.

THE NEW REGULATIONS FOR THE EAST INDIA MEDICAL SERVICE.

Return to an Address of the Honourable the House of Commons, dated June 30, 1864, for

A "Copy of the Despatch to the Government of India, dated the 16th day of May, 1864, No. 152, regarding the Indian Medical Service."

T. T. PEARS, Major-General, Military Secretary.

India Office, July 2, 1864.

(Military, No. 152.)

To His Excellency the Right Honourable the Governor-General of India in Council.

SIR,— India Office, London, May 16, 1864.

Para. 1. In connection with the subject of the reorganisation of the Medical service in India, her Majesty's Government have for some time past had under consideration the present state and future prospects of the Indian Medical service in regard to promotion, and the system of payment to the Medical officers of the Indian army and those of the British army serving in that country.

2. A final decision upon the arrangements connected with the future provision of Medical officers for service in India has been delayed from unforeseen and unavoidable causes, but will be communicated to you very shortly.

3. In the meantime, her Majesty's Government have determined upon the adoption of certain measures affecting the interest of the present service, in regard both to pay and promotion.

4. It has been found by experience that the promotion to the rank of Surgeon in the Indian service has been much slower than the same in the British service; and although this is in a great measure attributable to augmentations that have been made of late years in the latter, the difference, therefore, being in a measure temporary, it may in some degree be attributed to the difference which has hitherto existed in the relative numbers of the two grades in the two cases. In the British Medical department I find the proportion which the Assistant-Surgeons bear to the senior grades is as 641 to 355, while in the Indian service it has been hitherto,—

In Bengal	as	285	to 140
Madras	,,	167	,, 76
Bombay	,,	137	,, 56

5. To carry out the assimilation in this respect would require, therefore, the promotion of Assistant-Surgeons in India to the following extent:—

In Bengal	12
Madras	10
Bombay	13

6. You are authorised to make these promotions from the date of the receipt of this Despatch. The establishment of Medical officers above the rank of Assistant-Surgeon in the three Presidencies will, so long as there are officers enough remaining on the old lists to complete these numbers be fixed,—

In Bengal	152
Madras	86
Bombay	69

7. With a view of removing all cause of complaint and misunderstanding, on the part of the officers of the Indian Medical Service, on the subject of their promotion to the rank of Surgeon-Major, under the Royal Warrant of January 13, 1860, Her Majesty's Government have determined to give retrospective effect to that Warrant, and to cause all promotions made under its authority to be dated from October 1, 1858, being the date of the Royal Warrant for the British Medical Department, and it has been further determined to modify the instructions conveyed to you in my despatches, No. 397, dated October 31, 1860, and No. 386, dated September 30, 1861, and to permit the period of service qualifying Surgeons for the rank of Surgeon-Major under that Warrant to be calculated from date of first commission, including all leave of absence of whatever kind.

8. It has been further resolved that the following change in the mode of payment of officers serving in India, whether of the British or Indian Medical Department, shall be introduced from the date of the receipt of this despatch.

9. From that date the allowance of head-money, as well as that for Medical charge of British regiments and brigades, will be discontinued, excepting in the case of Assistant Surgeons, who will receive, while in actual charge of British regiments or brigades of artillery, a special allowance of Rs. 150 per mensem in addition to their pay.

10. The following will be the rate of pay for officers of the several grades in the Medical Department, below that of Inspector and Deputy-Inspector General, who receive special salaries, whether belonging to the British or the local service:—

Rank.	Years' Service.	Relative Rank.	Half Batta.	Full Batta.
			Rs. a. p.	Rs. a. p.
Surgeon-Major	25	Lieut.-Colonel	888 12 0	1093 2 0
,,	20	,,	852 3 7	1056 9 7
Surgeon	15	Major	677 6 11	825 11 5
,,	10	,,	640 14 6	789 3 0
Assistant-Surgeon	10	Captain	410 9 5	451 14 5
,,	6	,,	392 5 2	433 10 2
,,	5	Lieutenant	304 14 2	335 12 2
,,	under 5	,,	286 10 0	317 8 0

11. Surgeons of her Majesty's service, not being Surgeon-Majors, who may be in Medical charge of regiments or brigades at the date of publication of the Order, will not be affected by this rule, but will continue to receive their pay and allowances while attached to such regiments as heretofore.

12. Officers of the British Medical Department attached to brigades of Horse Artillery and regiments of British Cavalry will draw, in addition to the rate of pay above laid down, horse allowance at the following rate:—

Rank.	Years' Service.	Relative Rank.	Additional Horse Allowance when attached to a British Cavalry Regiment.
Surgeon-Major	25	Lieutenant-Colonel	Rs. 90 per mensem.
,,	20	,,	
Surgeon	15	Major	
,,	10	,,	
Assistant-Surgeon	10	Captain	
,,	6	,,	
,,	5	Lieutenant	Rs. 60 per mensem.
,,	under 5	,,	

13. Officers of the Indian Medical service will receive pay while on furlough in Europe according to the following scale:—

Rank.	After 30 years' service on Full Pay.	After 25 years' service on Full Pay.	After 20 years' service on Full Pay.	After 15 years' service on Full Pay.	After 12 years' service on Full Pay.	After 10 years' service on Full Pay.	After 5 years' service on Full Pay.	Under 5 years' service, on Full Pay.
	£ s.	£ s.	£ s.	s. d.	s. d.	s. d.	s. d.	s. d.
Inspector-General	2 5	2 5	(a)2 0	—	—	—	—	—
Deputy Inspector-General	1 14	1 10	(a)1 8	—	—	—	—	—
Surgeon-Major	—	1 5	1 2	—	—	—	—	—
Surgeon	—	—	—	18 0	15 0	—	—	—
Assistant-Surgeon	—	—	—	—	—	13 0	11 6	10 0

(a) Or on promotion, should these periods of service not be already completed.

14. The rule regarding pension, at present applicable to the officers of the Indian Medical service, will remain in force with the following modification.

15. Officers compelled to leave the service on account of ill health, and entitled to half-pay pension under present regulations, will be allowed the half pay of their relative rank, as laid down in the Royal Warrant, dated the 1st October, 1858. This rule will apply to all officers retiring upon half-pay pension from a date subsequent to the receipt of this despatch.

16. Pending a further communication upon the subject of the Medical service in India, officers of the British or Indian Medical service holding staff appointments, the salaries of which are consolidated, will continue to draw their salaries as at present; and all officers of the Indian Medical department in the receipt of staff salaries, including such as are in Medical charge of native regiments, will continue to draw the aggregate amount of pay and staff allowances they now receive, provided it be not less than the rate of pay laid down in the above table for officers of their rank and standing in the service.

17. In communicating to the Secretary of State for War the proposal to adopt the above modification in the mode of payment of British Medical officers in India, I expressed an opinion that, considering the extent to which the strength of regiments of British infantry had been lately reduced, the number of Assistant-Surgeons with their corps might, with propriety, be reduced from three to two, the reserve of Medical officers of the British Army, which it is proposed to maintain to meet the

demands of the British Army in India generally, being so calculated as to ensure at least that number of officers being at all times available with each regiment.

18. The Secretary of State for War has consented to this reduction, upon the understanding that it shall be considered an experimental arrangement, and that the Staff Assistant-Surgeons constituting the reserve shall be considered as forming part of the Medical staff at the disposal of the military authorities.

19. The establishment of Staff-Surgeons and Assistant-Surgeons of her Majesty's service at present allowed is as follows:—

1 Inspector-General of Hospitals.
4 Deputy ,, ,,
10 Staff Surgeons.
30 Staff Assistant-Surgeons.

20. You will consider and report at an early date whether this number of Assistant-Surgeons will suffice, under the present arrangement, to ensure the constant supply of two Assistant-Surgeons to the whole of her Majesty's regiments, or what increase may be required for that purpose.

I have, &c.
(Signed) CHARLES WOOD.

MEDICAL NEWS.

UNIVERSITY INTELLIGENCE.—UNIVERSITY OF LONDON.—FIRST M.B. EXAMINATION, 1864:—

First Division.—Francis Bateman, St. Bartholomew's Hospital; Stephen Wootton Bushell, Guy's Hospital; Thomas Cole, St. Bartholomew's Hospital: Henry Greenway Howse, Guy's Hospital; James Pearson Irvine, B.A., University College; Frederic Barham Nunneley, University College; Charles William Philpot, King's College; Thomas Claye Shaw, B.A., King's College; George Christopher Tayler, St. Bartholomew's Hospital; John Burges Welch, King's College.

Second Division.—Arthur Bayley Adams, London Hospital; John Augustus Ball, Guy's Hospital; Marcus Beck, University College; Charles Berrell, King's College; Other Windsor Berry, Charing-cross Hospital; Francis John Buckell, University College; Henry Clothier, University College; George Eastes, Guy's Hospital; Charles Kelly, King's College; John Lloyd, Queen's College, Birmingham; Charles James Hardy Smith, University College; George Owthwaite Spencer, University College; Arthur Taylor, Guy's Hospital; Thomas Pickard Warren, Guy's Hospital: John Williams, University College.

EXCLUDING PHYSIOLOGY.—*First Division.*—John Pearson Hughes, University College.

Second Division.—Henry Hargreaves Birtwell, St. Thomas's Hospital; Julian Augustus Michael Evans, University College; John Spencer Ferris, King's College; Ralph Gooding, B.A., King's College; John Grimes, King's College; John Wickham Legg, University College; George Hunt Orton, St. Bartholomew's Hospital.

PHYSIOLOGY ONLY.—*First Division.*—Thomas Robinson Glynn, St. Bartholomew's Hospital; Henry Charles Hilliard, Guy's Hospital; John Harward Hooper, St. Thomas's Hospital; Arthur George Mickley, Guy's Hospital; Ebenezer Fulham Turner, Guy's Hospital; Thomas James Woodhouse, St. Thomas's Hospital.

Second Division.—William Hugh Aldersey, Guy's Hospital; Walter Anstice Harvey, St. Bartholomew's Hospital; Arthur Trehern Norton, St. Mary's Hospital; Charles Read, University College.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, August 4, 1864:—

Thomas Wimpenny Green, University of Glasgow; Joseph Langhorn, 227, Brompton-road; John Williams, Anglesea; Richard Hughes, Rectory, Llanddenisler, Carnarvon; Charles White, Guy's Hospital; William Parsons Knott, Blisworth, Northamptonshire; Frederick Lawton, Chiddingford, Surrey; Arthur Hill, 58, Cumberland-street, Pimlico; George Alexander Augustus Coats, Sirhoury, Monmouthshire; John Hankinson Gornall, Royal Infirmary, Liverpool; Alexander Hampton Brewer, Victoria, Monmouthshire; Nynian Holman Lower, Lewes, Sussex; Albert James Wallis, Cambridge; Ernest Arthur Hudson, St. Mary's Hospital; Edward Reynolds Ray, Dulwich, Surrey.

The following gentlemen, also on the same day, passed their First Examination:—

Herbert Lucas, Guy's Hospital; Charles Arthur Brigstocke, St. Bartholomew's Hospital; Edward Alfred Trimnell, Guy's Hospital; George Fowler, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BRIGHT, J. A., M.R.C.S. Eng., has been appointed Resident Medical Assistant and House-Surgeon to the Tunbridge Wells Infirmary and Dispensary.

FAIRBANK, FREDERICK ROYSTON, L.R.C.P. Lond., has been appointed Surgeon to the Chorlton Dispensary, Manchester.

DEATHS.

ANDREWS, THOMAS, M.R.C.S. Eng., at St. George's-terrace, Canterbury, on August 6, aged 59.

BLYTH, GEORGE THOMAS, Surgeon of North Walsham, on board the steamer *Western Metropolis*, on June 15, aged 32.

COMELY, GEORGE, M.R.C.S. Eng., of Headley, Hants, at Winchester, on August 1, aged 35.

EVANS, HENRY, M.R.C.S. Eng., at Blaenent, Newcastle, Emlyn, on July 10, aged 34.

PRATT, CHARLES EDWARD, M.D. Edin., at Bude House, Appledore, North Devon, on July 23, aged 71.

RIDLEY, RICHARD B., L.R.C.P. Edin., at 2, Chapter-row, South Shields, recently, aged 52.

WAKEMAN, PETER R. W., M.R.C.S. Eng., at Bryn-Hyffrd, Llangattock, Crickhowell, recently, aged 73.

WILKIN, HENRY, M.R.C.S. Eng., late of 39, Connaught-terrace, Edgware-road, W., on July 26, aged 62.

ROYAL COLLEGE OF SURGEONS.—The following members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such on the 8th inst.—viz., Messrs. Gerald Yeo, of the Royal Navy, diploma of membership dated December 24, 1841, and Octavius Adolphus Field, of Sussex-gardens, August 12, 1836.

THE GUARDSMAN SHOT AT WIMBLEDON.—Private H. Cooper, the private of the Coldstream Guards who was accidentally shot on the 21st ult. at Wimbledon, died there on Tuesday at 6 o'clock. He was making a favourable recovery as regards the wounded side until Friday night last, when symptoms of congestion of the lung on the sound side became evident. These gradually increased in intensity, and he sank without pain at the hour stated.

THE library and museum of the Royal College of Surgeons will be closed during the ensuing month of September for the annual cleaning and re-arrangement.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—The Library will be closed from Monday, August 15, to Saturday, September 10, both days inclusive.

HUNTERIAN MUSEUM.—An addition has just been made to this collection in the statue erected by public subscription to the memory of John Hunter. It has been executed by Henry Weekes, R.A., and is thought by some one of the best productions of this sculptor, who, it would appear, has endeavoured to copy the fine, but fast-fading *chef d'œuvre* of Sir Joshua Reynolds, also in the possession of the Royal College of Surgeons. For our own parts, we are by no means satisfied with the statue, whether it be considered as a copy of Reynolds' Hunter, or merely as an ideal representation of the great biologist. It certainly is not the former, and it falls far short of our idea of the latter.

SUNDERLAND MEDICO-CHIRURGICAL SOCIETY. — A Society, under the above title, has been formed in this town, under the presidency of Dr. Brown, J.P., with Mr. Dixon, J.P., and Dr. Parkes as Vice-Presidents, and Dr. Yeld, as Hon. Secretary and Treasurer. The objects of the Society are:—The reading of papers and discussion on all subjects relating to Medicine and the allied sciences. Mutual intercommunication respecting the prevalent diseases of the district. The exhibition of microscopic and other specimens of a physiological or a pathological character. To have power to take cognisance of all matters relating to Medical ethics submitted for consideration.

TOPICAL APPLICATION IN MUSCULAR PAINS.—The following formula is recommended as highly useful:—Tinct. of the root of aconite, 5 parts; lard, 10; chloroform, 5; and muriate of morphia, 1; part. The tincture first to be incorporated with the lard, and then the other ingredients mixed together in a glass mortar. To be kept in a well-corked bottle having a wide mouth. Some of this pommade is to be spread every hour by means of a feather over the painful part, and then covered with wadding and oiled silk.—*Gaz. des Hôp.*, No. 87.

MEDICAL CHARITIES.—His Royal Highness Prince Leopold, accompanied by Prince Louis of Hesse, and attended by Earl Granville, went from Osborne to Bishop's Waltham on Thursday, the 4th inst., where he laid the foundation-stone of the new Infirmary for that place.—The South Devon and East Cornwall Hospital, Plymouth, has just received £100 under the will of Vice-Admiral Sir Arthur Fanshawe.—The Empress of Mexico, on arriving at Puebla, presented the Prefect with 7000 piastres from her privy purse to be devoted to the repairs of the Hospitals, the ruinous state of which had caused her much grief. It is added that the poor, heretofore so long deprived of Hospital Medical assistance, will, by this act of liberality on the part of the Empress, be able to return to the Institution.—From Paris it is stated that the Emperor has addressed a letter to Marshal Vaillant concerning the rebuilding of the Opera House and the Hôtel Dieu Hospital, and states that, on moral grounds, he considers that it is in the highest degree important that a building devoted to pleasure

should not be constructed before an asylum for the suffering. The Prefect is, therefore, instructed to commence the works of the Hôtel Dieu forthwith.

CHEMOSIS OF THE CONJUNCTIVA AS A SYMPTOM OF SUPPURATING MENINGITIS.—Dr. Leyden wishes to draw the attention of the Profession to this circumstance, as within a short time he has met with three cases in which chemosis of the conjunctiva constituted a very distinct phenomenon, all the other structures of the eye retaining their complete integrity.—*Virchow's Archiv*, Vol. 29, No. 1, p, 199.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. A. G. Bartley.—Your letter was forwarded to the Secretary of the Meteorological Society.

Dr. W. S. Munro.—We shall be glad to receive the promised cases.

E. M. G.—He has no legal right to do so.

M.R.C.S.—He has no *legal* right to the title of Doctor, although he may call himself Physician and Surgeon.

We are obliged again to postpone our notice of the case of Smithyman *v.* Wilson until next week.

The subscription for Mrs. Walker, of Crick, near Rugby:—Dr. Bisset Hawkins, £5.

A. A. D., M.D.—Yes, the authorities of the College of Surgeons always enforced their claims to the bodies of murderers hanged at the Old Bailey until the alteration in the law requiring the bodies to be interred within the precincts of the prison. The body of Bishop, one of the murderers of the Italian boy, was given to Professor Partridge for his zeal in discovering the crime. The bodies were distributed to the Metropolitan Hospitals in rotation.

Shocking Case of Easy Virtue.—We can only suppose that whilst the editorial staff of the *British Medical Journal* were absorbed in the festivities of the Association at Cambridge some traitor burglariously got admission to the printing-office, and foisted in an article which sets at defiance all the editor's notions of liberty and virtue. Most of us hold that it is not only a justifiable thing to use any measures not immoral in themselves to prevent the spread of syphilis in the army and navy, but that it is a duty to the wretched female children who prostitute themselves to snatch them from their vicious course, and give them, at least, a chance of health, life, and reformation. Let any one go into Hyde-park, or into the alleys of Glasgow or Portsmouth, and see the wretched children who there ply their infamous trade, who set at defiance the will of their parents, the law of the land, and the law of God, and say what they think of the discretion, the knowledge of the world, and the courtesy of the editorial comments on the *Contagious Diseases Prevention Bill* which have been circulated in the *British Medical Journal*. "We venture to say that a more iniquitous interference with the liberty of the subject has never been sanctioned by a British House of Parliament." "These unfortunate women have been treated as Indian princes treat their dancing girls—as beings who have no more rights than animals"! "Since the days of Charles the First no such iniquitous interference with the liberty of the subject has been proposed"! "Those only who uphold the doctrine that it is right to do evil to obtain good can give their sanction to such a piece of legislation as this"! Will it be believed that an editorial staff, which so late as July 23 is burning with indignation at the tyranny, the iniquity, the essential moral turpitude of any interference with liberty of whoredom, shall on August 6 calmly insert a quasi-editorial article, without comout comment or remonstrance, advocating this very tyrannical, arbitrary, immoral, and degrading measure? Alas for easy virtue!—but so it is. Cambridge champagne has corrupted the incorruptible. Do the members of the British Medical Association remember the story of the debtor in Newgate talking through a grating to the drunken soldier outside on the horrors of an expected French invasion? "What is to become of our precious liberty?" said the prisoner. "Aye," said the soldier, "but d——n your soul, what's that to the loss of our most holy religion, and be d——d to you?" Will the British Medical staff tell us how they came to let in the French wolf? how our precious liberty and religion came to get such a blow as that which it has now received from one who, we suppose, has intruded into their camp and silenced these most scrupulous guardians of the rights of women to do what they like with their own?

FRAUDS UPON COUNTRY SURGEONS REQUIRING ASSISTANTS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—May I avail myself of your extended circulation to raise a note of warning to principals in the country who are looking for assistants? The worst class of idle dissipated candidates for situations are the inhabitants of coffee-houses or taverns in some of the main thoroughfares of London, and in replying to advertisements they constantly refer to one another thus:—T—— N—— G—— refers to C—— B—— R——, Esq., No. —, Fleet-street; and R—— in turn refers to T. N. G——, Esq., No. —, Strand, or some other well-known locality. Each is prepared to say anything except the truth of the other, and the rural Æsculapius is thus induced to take into his house a drunken, ill-looking fellow, who cannot be got rid of without a law suit or the payment of a month's salary. The case I put is not imaginative, as some gentlemen who have recently suffered can testify.

I am, &c. J. BAXTER LANGLEY.

THE COLLEGE OF PHYSICIANS AND THE APOTHECARIES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As the College of Physicians have at the last moment halted in the downward path they have been, as I think, recklessly pursuing, I should not have thought it right to have trespassed on your valuable space, or worth my while to relinquish my modest glass of port and my afternoon nap in order to celebrate what I believe to be a triumph of the right cause. However, your correspondent, "F.R.C.S. Eng. (Exam.)," has noticed my last effusion in such charming taste ("there is no accounting for tastes," as he, with great originality, observes), and with such an amusing display of virtuous irritation that I feel obliged, despite the indolence natural to my time of life, to congratulate him on the good temper and amiability he displays in his letter, to say nothing of the polished grace of its composition and the elegance of its similes. It is evident, Sir, that he is a judge of wine. He knows the flavour of gooseberry as well as dear old Mrs. Primrose, and is not to be taken in by it. I would merely, therefore, suggest to him that a glass of undeniable gooseberry is a more pleasant as well as a more wholesome beverage than a modicum of "Moet's champagne," at 1s. 6d. a bottle. It will agree better with head and stomach. If the Apothecaries' licence be "gooseberry," it is a good, honest English drink, whilst if a guinea licence bought at the College of Physicians may be called champagne, it will take a good deal of the cognac of personal merit to prevent it damaging the Professional constitution of the ambitious aspirant who thinks he "does the genteel" by indulging in it.

Your correspondent, the F.R.C.S. Eng. (Exam.), gives me the benefit of the doubt and believes me honest. I amsure I am much obliged to him, and as I wish to reciprocate the compliment, I take the trouble to explain to him that so far from being at variance with, or having any animosity against the College of Physicians, I consider myself one of its warmest friends. I know there are a large number of my old acquaintance amongst the Fellows who think of the late policy of the College much as I do. Moreover, the rejection by the College of the Brighton petition is good evidence that the advice which my letter was intended to convey was really sound. The fact is, that I have too much respect for the memory of several of the old Fellows, whose names may be found in the College Roll, and whom I remember in my early days, ever to wish to see its degradation, and degraded it would be if, under a pretence of liberalism, it sold its diploma for a money consideration only.

Your correspondent the F.R.C.S. Eng. (Exam.) wants to know if I print my card in this fashion—"Mr. Apothecary Jones." I confess I do not—not that I should have the slightest objection to do so if it were the fashion to put a man's calling as a title before his name. I think, however, that a card printed in the following style would be at least a Professional novelty, and it would not add less to the doctor's dignity than the guinea licence from the College of Physicians which some of my brethren are so anxious to hang up framed and glazed in their surgeries.

Mr. F.R.C.S. Eng. (Exam.), DE LA PLUSH,

Grand Parade,
Jeameston.

If your correspondent will kindly send me (under cover to you, Sir) some of his cards printed in this fashion, I should be glad of them as contributions to my museum of Professional curiosities.

I don't keep a shop, Sir, but I have a dispensary. I charge for my medicines as well as for my visits, and if I meet a Physician in consultation I make up his prescription. In other words, I practise as an Apothecary in the sense in which the word is now understood. I have been enabled through a long life to pay my way by my professional exertions, and if all the would-be Physicians without examination could do the same, I suspect we should not find at the present moment 300 applicants for the degradation of being gazetted as Acting Assistant-Surgeons on Dr. Gibson's list.

With regard to my remarks on the Brighton Memorialists, which appear to have raised your correspondent's choler so much, all I can say is that if gentlemen will put themselves in the position of the tailors of Tooley-street, they must not mind a little *badinage* at the figure they cut. I repeat that the whole thing smacked of snobbishness. It was, in its essence, a piece of flunkeyism, and showed a woeful lack of Professional and personal self-respect. However, as the College has rejected their petition, I will not add one word to increase the chagrin and annoyance to which their own folly and vanity have subjected them.

In conclusion, Sir, I would impress on my younger brethren, if they will take an Antediluvian's advice, to rely more on personal and Professional character for the respect and esteem of the world than on the tawdry paper trappings they can buy from corporations. They may rest assured that the public will employ the man who can do them good rather than the man whose sole claim to their confidence is a dozen letters after his name! People soon find out the difference between silver and electro-plate—

"The rank is but the guinea stamp:
The man's the gowd
For a' that."

I am, &c.
A COUNTY MAGISTRATE AND AN APOTHECARY.

CASES OF POISONING BY CAUSTIC ALKALI AND CHLORIDE OF ZINC.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The two following cases of attempted suicide by poison seem to be worthy of record on account of the novelty of the substances used:—

On July 24, 1863, I was summoned to a woman, who had in a desponding mood taken a large quantity of common washing soda. She complained of severe pain in the epigastrium, constant rigors, intense headache. At the time of my visit (four hours after taking the soda) I found she had not micturated since an hour before taking the draught, and as there was great distension and tenderness over the bladder I used the catheter, which afforded great relief. There were no appearances unusual about the mouth and throat, except dryness of the mucous membrane, inducing a constant craving for drink; the bowels had been relieved twice copiously. I gave her an emetic of ant. tart. and pulv. ipecac., which produced free

vomiting of a quantity of fluid matter of no particular odour, and colourless; applied hot bottles to her feet (which were very cold), and gave her plenty of warm milk and brandy to drink, on account of her weak pulse and generally exhausted condition. She informed me she took two handfuls and a large lump of soda, and as there was very little left in a pound packet which she had purchased the night previously, she must have taken three-quarters of a pound at least. She dissolved the soda in warm water, and although she felt slightly nauseated on swallowing it, she did not eject any of it. Her urine was intensely alkaline for several days, but with the exception of slight epigastric pain and dyspepsia for a few days she suffered no inconvenience. There is nothing unusual in this case but the retention of urine, which may probably have been due to hysteria. It is singular that such a nauseous dose did not prove its own antidote by producing immediate vomiting.

About 3 a.m. of July 26, 1864, I was called to see a young girl who had taken poison. On proceeding to the house I found her complaining of burning in throat and stomach, violent pain over whole abdomen, and intense thirst: her lips, tongue, and fauces much inflamed, and body covered with a cold clammy perspiration. She had taken a quarter of an hour previously about half an ounce of a liquid used for "soldering" iron, tin, etc., and as I was not aware of its composition I thought it best to give an emetic, which acted quickly, the vomited matter staining everything with which they came in contact. I recommended her afterwards to drink freely of a thin paste of flour and water, in which a small quantity of brandy was put. She had slight irritability of the stomach and pain on taking food for a few days, and afterwards quickly recovered. On inquiry of a chemist I found that the solution usually sold for "soldering" consists of "metallic zinc dissolved in spirit of salt," and it is therefore somewhat similar to Sir W. Burnett's disinfecting fluid.

I am, &c. "Nemo Sibi Vivat."

How to Extract a Fish-hook when Embedded in any Part of the Body.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The enclosed article suggested itself to my mind after having read your Edinburgh correspondent's letter, in which he finds that a fisherman had to get part of his hand amputated on account of a fish-hook having been embedded in it. I am, &c.

Blantyre, July 13. T. Downie, M.D.

In the year 1853 a boy came to my surgery with a fish-hook embedded in the fleshy part of the left hand; this was the first case of the kind I had seen, and as my mind had not been previously directed to this subject, my first idea was to operate by cutting the hook out with a scalpel; a moment's reflection, however, taught me that I might extract it much more satisfactorily by pushing the point of the hook through the skin after having taken off the "buskin" or dressing. The attachment of the line to the hook was therefore cut off, and the shaft of the hook carefully scraped and oiled, the point was then thrust through the skin, and the shaft brought through the newly-made aperture. In 1858 a lady brought her son to me, a boy of 13 years of age, with a fish-hook embedded in the space between the right upper eyelid and eyebrow; it was extracted in the same way as the former one, much to the satisfaction of the lady and her husband, both of whom had expected a severe operation. In 1861 a boy was brought to my house with a fish-hook deeply embedded in the palmer side of one of his fingers; it was got out in the same way as the other two, but with some difficulty, owing to the hook having been embedded in one of the tendons of the finger. These accidents happened through awkwardness in throwing the line.

The Naval Medical Department.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The following letter with the above heading, signed "M.D., R.N.," has just been received by me, and as it enlarges upon a subject treated of in the columns of your journal under the same signature on May 21, and June 4 and 18 last, I beg to forward it for your perusal. The writer of this paper is unknown to me. He goes very fully into the money part of the question, and I have no doubt but that his figures are quite correct, and may be accepted for what they are worth, but for my own part I do not approve of comparisons with the various classes of officers in the navy, and I feel sure that such arguments fail to operate on Boards of Admiralty so long as they are able to fill up the vacancies from time to time in the Naval Medical Department.

What I should like to see would be one common examining board for the Medical services of the state, naval and military, one common finishing school at Netley, and then the privilege of selection accorded to the candidates in order of merit. By this course we should ensure good men for the navy as well as the army, and ultimately a recognition of all those rights to which "M.D., R.N." lays claim, but which never will be recognised by those in authority as long as the present system of supply continues. I am, &c.

Army and Navy Club, August 4. Medicus.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The Medical officers of the army are very discontented with their condition. Much has been written on the grievances of the Army Medical Department. Allow me to direct your attention to those of the Naval Medical Department. The subject may be conveniently arranged under the five following heads:—

1. *Relative Rank.*—It may be fairly doubted whether the Admiralty would not act wisely by abolishing rank as regards the Medical officers of the navy, and thereby assimilating their condition to that of the chaplains. The abolition of rank among the clergy gave universal satisfaction to them, and it seems probable that, were a similar step adopted with the Surgeons and Physicians, it would be followed by the same result. Others may differ from me, and consider a certain rank to be necessary. If, however, Medical officers are to continue to be divided into classes, and to hold relative rank with the executive officers of the navy and army, it seems certain that there should be a different arrangement from that at present in existence. The present system is a cause of just and general complaint. When the Royal Warrant was first promulgated a Surgeon ranked with a commander, but now he ranks with lieutenants of eight years' standing, who are generally officers much his juniors in age. An Assistant-Surgeon, who joins the service when he is about 24 years of age, on his first entry ranks with a sub-lieutenant; he ought to rank with a lieutenant. What Medical officers wish for is simple enough. They merely wish to rank with those who are about their own age. No Surgeon or Physician, who has any pride in his Profession, and who has been fifteen or eighteen years in the service, is content to rank with a lieutenant, an officer who is invariably many years his junior. Nor is any Staff-Surgeon, of twenty-five years' service, and, perhaps, 55 years of age, content to rank with a commander, and be always considered junior of that rank. The Admiralty may rest assured that Medical officers have no desire to take command of ships, or arrogate to themselves an unbecoming position, but being gentlemen by birth and education, they believe they have a fair claim to rank with those executive officers who are about their own age.

2. *Insufficient Full Pay.*—The Medical officers of the navy do reasonably hope that their full-pay may be so increased that they may be enabled to live with tolerable comfort on it. They do not seek for affluence, for such an idea in a public service would be a simple absurdity; all they ask for is a sum sufficient to allow them to live respectably, and as becomes their social position. At present they are most wretchedly underpaid, and, as compared with some other classes, they are poor indeed. In fact, with the exception of the masters, they are the worst paid of any class of naval officers. Nay, it is even doubtful whether the majority of Medical officers may not be considered even worse off than the masters, for a second master is generally promoted to the rank of master when about 25 years of age, and then receives £209 a-year, at an age when the Assistant-Surgeon is only receiving £182 a-year. Even as regards the higher ranks of the Medical service the pay is not what it ought to be. An inspector-general of Hospitals and fleets ranks with a rear-admiral, but when on full-pay, and in charge of a great naval Hospital, the highest remuneration he can receive is £2 5s. a-day, while the officer with whom he ranks receives £3, exclusive of a very large sum for table-money. Deputy-inspectors-general, after five years' service on full-pay, rank with senior captains, and the pay varies from £511 to £620, the latter only after thirty years' full-pay service. According to the present scale of pay an inspector-general receives about £100 less than a senior captain, and a deputy-inspector-general about £300 less! Compare, however, the full-pay of the Medical officers with other civilians, viz., the paymasters and chaplains. It is a remarkable fact that, although there are fewer paymasters than Surgeons in the service, that there are no less than sixty paymasters entitled to a full-pay of nearly £500 a-year, and that there are in addition to these, thirty paymasters who, while on active service, can claim £600 a-year. Of these thirty about a dozen are employed in the Coast Guard Service, and have extra allowances, which increases their pay to £700 a-year. Now, there are only twenty-two Medical officers (I allude to the Medical inspectors-general and deputy Medical inspectors-general) who can claim any remuneration for their services at all equal to this. Of these twenty-two Medical officers six have a full-pay somewhat exceeding that of the paymasters. Who would not, however, take his chance of being one of ninety well-paid men than of the twenty-two here alluded to, especially when we come to consider that these Medical officers are, with few exceptions, men who have been more than twenty-five years in the service before they attained their present rank, have charge of great Hospitals, and hold other very responsible posts. The paymasters are by no means overpaid, but I cannot help reflecting on the disparity of remuneration existing between them and the Medical officers. How fair and ample is the pay of those who have charge of the accounts and provisions of the ship compared with those who have charge of the health of the crew! Any paymaster can, by length of service, have the highest pay his class can attain to, whereas for a Surgeon to be promoted to the rank of a deputy-inspector-general requires a strange combination of good luck. The result is that the overwhelming majority of Surgeons can never enjoy a full-pay exceeding £400 a-year. This amount is only obtained after a lengthy service of twenty years; and as some portion of every Medical man's time is necessarily spent on half-pay, it follows that he may be twenty-three or even twenty-five years in the service before he gets the sum above named. Indeed, in some instances, in which the Medical officer happens to have been an Assistant-Surgeon a longer time than usual, not even twenty years' service will give him the £400 a-year; for it is decreed that, in order that he may be qualified to receive the sum alluded to, he must complete ten years of his time in the rank of Surgeon. To show how difficult it is to obtain a service of twenty years, and thereby become entitled to £400 a-year, I may here remark that there are only ten Staff-Surgeons out of 169 Surgeons on the Retired List. In other words, only ten Surgeons, who are now retired, were able to obtain twenty years' service. Only ten had as much as £400 a-year when actively employed. A Surgeon on promotion, after a service of about ten years, as an Assistant-Surgeon, receives £273 a-year, and, with few exceptions, the full-pay is never more than £328 a-year. I am myself on half-pay, am 47 years of age, and have served in almost every quarter of the globe, and yet, when I am again called upon to serve afloat, I must be content with the magnificent sum of £328 a-year! Had I entered the service as an executive officer it is probsble that I should now be in the enjoyment of the rank and emolument of a captain; had I entered as a clerk I should now be a paymaster with £600 a-year; and had I joined as a chaplain I should have long ago completed my period of service. Compare the treatment of the clergy with the Medical officer. It is quite true that a clergyman who serves in the single capacity of a chaplain is as badly remunerated as a Medical man, for he enters the service with about the same pay as an Assistant-Surgeon, and throughout his whole career is kept upon much the same scale of pay as the Medical officer. Nearly all clergymen, however, now hold the two offices of chaplain and naval instructor, and the two duties can hardly be considered too onerous for any one to perform. What is the result of this arrangement? Why, the youngest chaplain in the navy can at once obtain a larger pay than the greater number of Surgeons can ever hope for. The next appointment I hold after eighteen years' service will not remunerate me so much as the first appointment of a clergyman, many years my junior, who happens to hold the combined offices of chaplain and naval instructor. Yes, it would indeed appear that the services of Medical officers are ill-appreciated, for it is quite certain they are ill-paid for. There is hardly a ship afloat where there is a Surgeon, a paymaster, and a chaplain, in which the Surgeon is not by far the worst paid of the three. As a general rule, the paymaster has about £200 a-year, and the chaplain about £100 a-year more than the Surgeon. Indeed, now that one-half the lieutenants employed are receiving extra allowances, we even find that many of these young officers are receiving nearly as much as Surgeons who are many years their seniors. Matters are no better in the army. I here again repeat that I do not consider any of the above classes of officers are overpaid, but I do contend that the comparison of pay is immensely to their advantage, and altogether against the Medical Profession, and would humbly ask the Directors-General of the Medical Departments of the Navy and Army whether they can wonder that their subordinate Medical officers are so discontented? It is truly not at all strange that the Marquis of Hartington was obliged to confess, in his recent speech on the army estimates, that "He was afraid if the deficiency of Assistant-Surgeons was to be met, it must be through the

House of Commons granting increased remuneration." Nor is it to be wondered at, that in his speech on the navy estimates, Sir John Hay recommended Lord Clarence Paget to procure the appointment of a royal commission to inquire into the subject of the pay of the navy, and most appropriately informed the Secretary of the Admiralty that no estimate, such as was lately brought before the House, would give complete satisfaction, seeing that whole classes were overlooked. That the full pay is wretchedly inadequate to the times in which we live is exemplified in a remarkable degree in the case of those Surgeons who are married to ladies without fortunes, which is the case in the majority of instances. Fancy a Surgeon, after being twelve or fifteen years in the service, on a full-pay of £273 a year, with a wife and family to maintain! If we deduct £100 for his personal expenses and those connected with his ship, he is left with the handsome sum of £173 to pay income-tax, rent, and taxes of a house, and to keep his family supplied with the necessaries of life. We must recollect also that a Surgeon can hardly expend less than £10 a-year in keeping his instruments in repair, subscribing for the *Medical Times* or *Lancet*, and buying books to keep himself up to the mark in the Medical literature of the day. If, after meeting all these necessary expenses, he can afford to pay for a policy of insurance, so that he may make some provision for his wife and family in the event of his death, he must be a very careful manager indeed. When viewed in this light it will be seen how poor an equivalent is a Surgeon's pay for the large amount of money invested on his education, and how slight is the inducement for first-rate men to enter such a Profession. Far better would it be for parents to enter their sons when young as naval cadets, clerk's assistants, or any other calling in the navy, than to bring up boys to a profession in which they will be a drag upon them until grown up to manhood, and will then receive so paltry a reward for all the expense that has been lavished on them. While such is the remuneration offered, can we wonder that both in the navy and army there is occasionally very great difficulty in obtaining a sufficient number of Assistant-Surgeons, or can we be surprised when we hear that the Medical Director-General of the army is reduced to the necessity of advertising for Assistant-Surgeons, and seems glad to get them on almost any terms? It is no marvel that the existing rate of pay has so signally failed to secure for the army persons qualified to perform the duties required of them. There is no fair reward for professional skill and general learning, and, therefore, talent and energy seek another channel. It may, however, be said that many Medical men pursuing their avocation on shore are worse off than those in the navy or army. This is quite true as regards some who are unsuccessful in life. There will always be some in every profession who will fail. Divinity, law, and physic have many such. But why should it be taken for granted that all the Medical officers of the navy and army ought to be placed on the same level as these unfortunate ones? The whole of the navy and army Surgeons ought not to be classed in the category of unsuccessful men. Many in both services are ornaments to their Profession, and had they pursued a different path in life there is every reason to suppose that they would have obtained an ample competence, and, in some instances, even affluence. The naval Medical Profession has, in recent times, numbered among its ranks many who are an honour to it, and who are in no way inferior to their brethren on shore. Indeed, I am much mistaken if there are not a few among them who, had they practised on shore, would have trod the highest path of professional eminence.

3. *Prize Money.*—Had the terms of the Royal Warrant of 1859 been fully carried out, the Medical officers of the navy would share equally in prize-money with those executive officers with whom they relatively rank. The Admiralty have, however, not kept faith with the Medical officers, and this boon has not been conceded. The result is, that a Surgeon, however old he may be, has the same share of prize-money as the boatswain, gunner, and carpenter of the ship! How derogatory to the Profession this is I need hardly say. That it is a just cause of complaint none who read this will deny. A Staff-Surgeon of fifty years of age receives eighteen shares of prize-money, and a young lieutenant of twenty-one years of age receives twenty-eight shares! Neither superior rank nor age give him any advantage. This arrangement is the more extraordinary when we consider that the skill of the Medical officer is not merely required as is the case with most other officers of both the executive and civil classes, during the day of battle, but, in many instances, after a severely-contested action, the Surgeon has heavy extra duties to perform for days and weeks together. A battle generally entails upon the Surgeon a good deal of genuine hard work. In some respects it is fortunate that prize-money, as a source of emolument, is now almost wholly lost. Were it otherwise the discontent among the Medical officers would be far greater than it is at present.

4. *The Treatment of Assistant-Surgeons.*—Assistant-Surgeons complain that, on entering the service, they find themselves in too many instances ill-provided for in cabin accommodation. The young Surgeon or Physician, on joining the service, has every right to expect that in this matter he should be placed on the same level as the young clergyman. It is, however, far otherwise. This ought not to be; for a clergyman and a Medical man are both gentlemen belonging to learned professions, and why one set of professional men should enter the service with such a marked advantage over the other it is hard to conceive. The clergyman has the position which his profession fairly entitles him to, but the Assistant-Surgeon has not. All wardroom officers seem to have the preference over the Assistant-Surgeons in choice of cabins. In most ships we find that, whenever an Assistant-Surgeon and a lieutenant of marines are to be accommodated, that a better cabin is given to the marine officer than to the Assistant-Surgeon. This is the more extraordinary when we reflect that the Medical officer is obliged to be almost constantly serving afloat, whereas the marine officer has only an occasional commission, and that the former is generally senior in age, and after six years' service ranks with a captain in the army. In one of the largest iron ships in the Channel squadron the junior Assistant-Surgeon has no cabin, and is obliged to sleep in a cot in the magazine flat; and in another ship belonging to the same squadron, one of the Assistant-Surgeons has his cabin in the forepart of the ship, so that he is entirely separated from the rest of his brother officers. It is only a few months since an Assistant-Surgeon on the home station obtained his discharge from the service because he had no cabin provided for him. On foreign stations there are at this moment several ships which might be named in which the Assistant-Surgeon's cabin accommodation is most miserable. It is indeed marvellous that such a state of things should exist, when years have elapsed since the Medical Warrant was promulgated, in which hopes were held out to the Profession that all Assistant-Surgeons should be provided with prope cabin accommodation on their first entry into the service.

5. *a . ath of Service Required.*—Another cause of complaint is the great length of service required of naval Medical officers before they can claim their retirement. That a naval Surgeon should be required by the regulations of the service to be sixty years of age before he can claim his retirement seems almost incredible—such a length of service is required of no other branch of the service. I am quite aware that twenty-five years will generally give a fair claim to retirement, but to complete even such a period of service the Medical officer must, as a usual rule, be at least fifty-five years of age. A clergyman holding the double qualification of chaplain and naval instructor, can enter the navy nearly as early in life as a Medical man, and is allowed to retire after a service of fifteen years on a half-pay of £254 a year. After such a short period of service no Surgeon is permitted to retire except through ill-health, and in that event the Medical officer will find himself shelved on a smaller half-pay. Let the two learned professions be placed more on an equality. I would not, however, be understood to imply that the Medical officers as a body are desirous of compulsory retirement at an early age. Give them a better full-pay and many of them would gratefully perform their duties for twenty-five years, and, in some instances, even for a longer time. They do, however, think, that twenty-one years is quite long enough to insist upon as being absolutely necessary.

Hoping you will use whatever influence you may possess for the amelioration of the condition of the Medical officers of the navy,

I am, &c. M.D., R.N.

COMMUNICATIONS have been received from—

Dr. KIRKPATRICK; Dr. C. HANDFIELD JONES; APOTHECARIES' HALL; UNIVERSITY OF LONDON; Dr. YELD; MEDICUS; ROYAL MEDICAL AND CHIRURGICAL SOCIETY; Mr. G. BARBER; Mr. J. BAXTER LANGLEY; Mr. JAMES ROBERTSON; Mr. A. G. BARTLEY; Mr. F. W. BREAREY; Mr. F. A. BULLEY; Dr. W. S. MUNRO; H. G.; A COUNTY MAGISTRATE AND AN APOTHECARY; Dr. WILLIAM BRUCE; Mr. WM. INGRAM; Mr. H. K. B. WILLIAMS; Dr. C. B. GARRETT; Mr. J. S. BRAZIER; JOANNES, M.D. St. Andrews; The Rev. H. BROMFIELD; AN OLD M.R.C.S. AND L.A.S.; Dr. W. T. GAIRDNER.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 6, 1864.

BIRTHS.

Births of Boys, 974; Girls, 932; Total, 1906.
Average of 10 corresponding weeks, 1854-63, 1684·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	870	725	1595
Average of the ten years 1854-63	618·1	601·9	1220·0
Average corrected to increased population..	..	..	1342
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa
West ..	463,388	1	13	13	2	4	8	49
North ..	618,210	3	11	14	4	7	22	69
Central ..	378,058	1	23	7	..	2	6	48
East ..	571,158	1	50	11	..	8	15	66
South ..	773,175	3	5	13	1	10	16	54
Total ..	2,803,989	9	102	58	7	31	67	286

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·936 in.
Mean temperature	65
Highest point of thermometer	88·6
Lowest point of thermometer	43·4
Mean dew-point temperature	50·3
General direction of wind	W.S.W.
Whole amount of rain in the week	0·00 in.

APPOINTMENTS FOR THE WEEK.

August 13. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

15. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

16. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

17. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

18. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m. Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

19. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

DINNEFORD AND CO., PHARMACEUTICAL CHEMISTS,

Respectfully refer the Medical Profession to their highly effective preparations :—

SYRUPUS SENNÆ, SUCCUS TARAXACI, AND EXTRACTUM SARZÆ LIQUIDUM

OF THE

NEW BRITISH PHARMACOPŒIA.

172, NEW BOND-STREET, LONDON.

HUBBUCK'S PURE OXIDE OF ZINC.

See Pharmaceutical Journal of May 1, 1856.

Sold Wholesale in Stamped Boxes of 14 lbs. each, by the following London Druggists :—

Messrs. Baiss, Brothers, and Co.
,, Barron, Harvey, and Co.
,, Burgoyne and Burbidges.
,, Cox, Gould, and Co.
,, Geo. Curling and Co.
Messrs. Drew, Barron, and Co.
,, Evans, Lescher, and Evans.
,, Samuel Foulger and Sons.
,, Hearon, McCulloch, and Squire.
,, Herrings and Co.
Messrs. Hodgkinson, Luckombe, and King.
,, Hodgkinsons, Tonge, and Stead.
,, Langtons, Scott, and Co.
,, Preston and Sons.

Pulvis Jacobi ver, Newbery,

FRAS. NEWBERY & SONS, 45, ST. PAUL'S CHURCHYARD.

Prices for Dispensing, 1 oz., 9s.; ¼ oz., 3s. 4d.

QUINÆ NEUTRAL PURIF. (SOLUTION.)

This preparation possesses all the active Alkaloids of Yellow Cinchona Bark, as Quinine, Quinidine, Cinchonine, &c., combined with its natural Kinic and other Acids, without the useless Gum, Starch, and woody matter. For the convenience of dispensing, and for the preservation of its active ingredients, as well as for the economy of its production, it is prepared in a liquid form, five minims being equivalent to one grain of sulphate of quinine.

Prepared by HERRINGS and CO., Wholesale Druggists, 40, Aldersgate-street, E.C., London.

NATURAL MINERAL WATERS OF VICHY,

Efficacious in Stomach, Liver, and Renal Diseases; Gout, Rheumatism, Diabetes, &c.

Also, the celebrated OREZZA MINERAL WATER, containing Iron, and which is extensively prescribed as an invaluable Tonic.
VICHY PASTILLES, the best Digestive Lozenges; and VICHY SALTS for Baths. Also, other French and German Natural Mineral Waters.
VICHY WATERS COMPANY (only Depôt in Great Britain), 27, MARGARET-STREET, REGENT-STREET, LONDON, W.

BARTH'S OXYGEN WATER holds free Oxygen in solution. It gently stimulates the functional action of the stomach and secretory organs, and is a very useful beverage. WENTWORTH SCOTT'S Analysis gives as contents of a bottle—"Nearly half an imperial pint of pure distilled water, and about 13·5 cubic inches, or 4·6 grains of gaseous oxygen; equivalent to that contained in 21·4 grains of chlorate of potash." 4s. per dozen.

OXYGENATED WATER COMPANY (LIMITED), 36, LONG-ACRE.

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OF KNOWN COMPOSITION.

For Formula, &c., see back Numbers.

Extract of Letter from Dr. C. KIDD (Author of Standard Works on Chloroform).—"SIR,— . . Of the value of Chloroform given internally I have no doubt; it appears to me in that form an anodyne, *sui generis*, that no other anodyne can approach. I have resolutely opposed the use of *secret* compounds of chloroform, and in every way I can encourage the use of the 'Chlorodyne' (if we must have it at all) that is made by you, as you state that its composition is known. Many Medical men think with me, and recommend your compound, but will never prescribe a secret remedy.—CHAS. KIDD, M.D.—Sackville-street, Piccadilly, London, April, 1862.—To Mr A. P. Towle."

Extract of Letter from ALFRED ASPLAND, Esq., F.R.C.S. Eng., J. P. Chester and Lancaster, Surgeon 4th Cheshire Batt. V.R., Surgeon to the Ashton Infirmary.—'After an extensive trial of your Chlorodyne in Hospital, Infirmary, and Private Practice, I am able to state that it is a valuable medicine. I have found its action peculiarly serviceable in Bronchial, Spasmodic, and Neuralgic Affections. I have never found it produce headache or feverish disturbance, results which not unfrequently occur from other forms of Chlorodyne. As a sedative to allay excitement arising from the abuse of intoxicating drinks, so commonly witnessed in our Barrack Hospital, I have been perfectly satisfied with it. Its known composition will doubtless prove an additional recommendation to the Profession.—To Mr. A. P. Towle."

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ORIGINAL LECTURES.

THE OPTICAL DEFECTS OF THE EYE.

A COURSE OF LECTURES DELIVERED DURING THE SUMMER OF 1862 AT THE

Surrey Ophthalmic Hospital,

By J. ZACHARIAH LAURENCE, F.R.C.S., M.B. Univ. Lond.,
Surgeon to the Hospital.

(Continued from page 477, vol. i. 1864.)

PART II.—PHYSIOLOGICAL OPTICS.

The human eyeball is, from before backwards, about $\frac{18}{20}$ of an English inch.(a) In it exists a system of convex lenses composed of the aqueous chambers, the crystalline lens, and the vitreous humour. These lenses differ, *inter alia*, from the glass ones we have hitherto been speaking of, in being soft, and thus capable of being modified in their degrees of curvature—in their focal lengths (b)—by certain muscles. When we regard a distant object, these muscles are in a state of relaxation, or, at any rate, of tonic contraction. The eye is then said to be in a "state of rest;" its lenses preserve one fixed curvature. The three lenses of the eye we may, for all practical purposes, consider as equivalent to a single 1-inch glass convex lens (more accurately to one of $\frac{18}{20}$ inch). The crystalline Monro states to have a focal length of $\frac{3}{8}$ inch. When the eye is in a state of rest, the image of a distant object is formed exactly on the *retina*, and may there be seen.(c) The retina thus closely resembles the screen of our previous optical experiments, or the ground glass of an ordinary camera obscura.(d) How it is that the purely physical image thus formed, translated to the mind (sensorium), through the medium of the optic nerve, produces to us an accurate idea of the object itself, as regards position, size, form, colour, etc., is more than we at present know, any more than how the different vibrations impressed on the auditory apparatus convey to the mind the various ideas of musical and other sounds. But, at the same time, it is most important to bear in mind the mental (psychical-nervous) nature of vision—its partly subjective, as contrasted with its partly objective character; (e) otherwise, you might often be misled into ascribing defects of vision either to optical or organic causes, which depended rather on some perversion of the sentient apparatus. Nevertheless, it is remarkable how perfectly the purely optical functions of the eye must be exercised before vision can be accurate. For the distinct perception of objects their images must fall exactly *on* the retina. If a normal eye be in a state of rest, the images of all *distant* objects fulfil this condition, and vision is perfect. Suppose, now, the eye, with its lenses still remaining in this state of equilibrium, be directed to a *near* object, the image would be formed behind the retina. I say "would be," because, in reality, the retina having no power of locomotion backwards, only an indistinct quasi-image is formed on it by the circles of confusion, as I have before fully explained in the case of a convex lens. The retina remaining stationary, an increase of curvature—power—of the crystalline would, as you can, from what I have before said, now readily understand, bring the image back on to the retina, and this is, in fact, precisely what occurs in the human eye. The images of near objects are brought back on to the retina by the crystalline lens becoming more convex. This was first partially proved by Young, and fully confirmed by Cramer by his phakoeidoscope. With this instrument the images of a taper-flame produced by reflection from the anterior and posterior surfaces of the crystalline lens are seen to increase in size and in their distance apart, or the reverse, according as the observed eye is directed to a distant or to a near object respectively. The corneal image, on the contrary, undergoes no change whatever, either in size or position. This change in the convexity of the crystalline lens is what is known as the "power of accommodation or adjustment" of the eye; or, as I shall in future term it, simply the "accommodation" of the eye. It is of great importance that you should consider this accommodation as a quantity—as a *magnitude*, in a word—susceptible of increase or diminution. This will become clear from an example. If, from having seen a distant object distinctly, I all at once transfer the eye to an object say 6 inches off, and find I see *it* distinctly, it is then evident (from our previous purely optical considerations) that, the retina being possessed of no locomotive power backwards, the lenticular system of the eye must have increased in power. It has, in fact, increased by a quantity equivalent to a 6-inch glass convex lens. If we suppose the crystalline lens un-

FIG. 13.

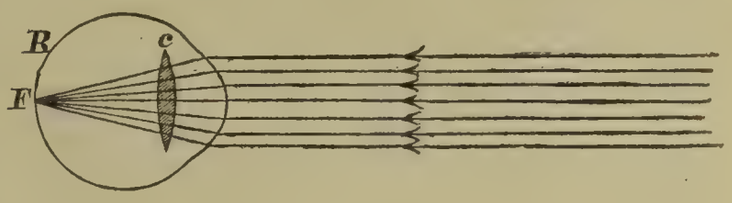

FIG. 13.—*c* =crystalline lens.
R=retina.

FIG. 14.

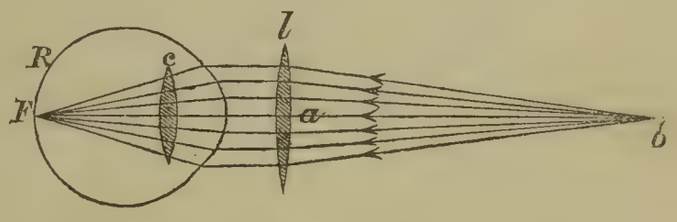

FIG. 14.—*a b*=6 inches.
c=crystalline lens.
R=retina.
l=6-inch, glass, convex lens.

changeable in its power, Fig. 13 will represent the eye adapted for parallel rays (from the distant object), Fig. 14 the same eye plus a 6-inch glass convex lens placed before it, the effect of this latter being to convert the divergent rays (from the near object) into parallel ones, and these, then, will be focussed, as before, by the natural lenticular system of the eye. I have in the diagrams represented this process as if the additional glass lens were in front of the eye; really, it is as if superimposed on the anterior surface of the crystalline. Now we find in practice that the proximity up to which different eyes can accommodate themselves varies greatly in different individuals and at different ages, and even in the two eyes of the same individual. One person may read a given type as close as three inches, whilst another may not be able to read the same type closer than thirty inches. In other words, whilst the former person possesses the power of increasing the convexity of his crystalline by a quantity equivalent to a 3-inch glass lens, the second cannot increase its convexity greater than by a quantity equivalent to a 30-inch glass lens. We then say that the accommodative power of the first person is to that of the second as $\frac{1}{3}$ is to $\frac{1}{30}$, or as 10 is to 1; in other language, "the accommodation of the first *equals* $\frac{1}{3}$, that of the second *equals* $\frac{1}{30}$." The imaginary passive state of the crystalline which we have, for the sake of illustration, depicted in figures 13 and 14, is actually now and then met with in

(a) Professor Ed. Jäger found the average length of the axis of eighty adult eyes to be 24·3 millimetres; that of seventy eyes of new-born infants to be 17·53 millimetres.

(b) Both in convex and concave lenses it may be asserted, generally, that the shorter the radius of curvature (or the greater the degree of curvature), the shorter the focal length of the lens (or the greater its power).

(c) If we carefully cut away the sclerotic in the sheep's eye, a distinct inverted image of any distant object may be seen to be formed on the retina. The eye of an albino rabbit shows the same thing without any further preparation.

(d) Johns Baptista Porta, the inventor of the camera obscura, in his "Magia Naturalis" (1560), thought that the pupil played the part of the minute aperture in his camera, and that the crystalline lens was the recipient surface of the image. It was reserved for Kelper, forty years later, to prove the true functions of the lenses of the eye.

(e) Many facts illustrate the subjective nature of vision. Dreams in sighted persons, and still more forcibly in the blind, prove the share of the mind in the act. This, so to say, memory of vision occurs to us awake or asleep. From several inquiries which I have made amongst the blind, I find that their subjective vision is as vivid as in the sighted, but that persons born blind are destitute of any such, so to say, "second" sight. However, as I am only now collecting specific information on this interesting subject, I defer saying anything more on it at present. On this point of view I might fancifully say that events are written on the tablets of the mind, as it were, with a sympathetic ink, which requires but the association of ideas—the fire—to bring out its characters. Ocular spectra (*vide* Darwin in the *Philosophical Transactions*, vol. lxxvi, p. 33, *et seq.*, and a paper by the author in the *Glasgow Medical Journal* for July 1, 1861) are further illustrations of subjective vision.

practice as the disease "paralysis of accommodation." M. Maingault, Drs. Greenhow and Sanderson mention it as an ordinary symptom of diphtheria.(f) I have seen a case of partial paralysis of accommodation following a severe attack of scarlatina, and two other cases which, as far as I could make out, were idiopathic. In these cases the patients cannot see near objects distinctly, but we may restore their vision for near objects precisely in the manner delineated in Fig. 14. Such a patient to read at 4 inches requires a 4-inch convex glass, to read at 6 inches a 6-inch one, to read at 9 inches a 9-inch one, and so forth. I shall hereaftre show you that we in atropine possess an agent capable of producing artificially this same paralysis of accommodation.(g)

When we, then, speak of a person possessing *e.g.* $\frac{1}{6}$ accommodation, we simply mean he has the power of increasing the convexity of his crystalline lens by a quantity equivalent to a 6-inch convex glass lens; such a person can see critically distinctly both objects at a distance and those which are six or more inches from the eye, but he cannot see objects critically distinctly nearer than six inches. A young healthy eye is generally endowed with an accommodation of $\frac{1}{4}$ for the two eyes used together, and say of $\frac{1}{3}$ for either used alone. As an illustration of the nature of accommodation, I may mention that after a person has brought an object (*e.g.*, a fine print) as close to the eye as he can possibly see it critically distinctly, he may see it equally distinctly still closer by the interposition of a convex lens—adding, in a word, an artificial amount of accommodation to what the eye intrinsically possesses.

How is the amount of accommodation measured? In the case of a normal or simply presbyopic eye, by merely ascertaining the nearest point of critically distinct vision, the "near point."(h) If the near point is *e.g.* six inches, the accommodation, which we will designate by $\frac{1}{A}$, $=\frac{1}{6}$.

The consideration of accommodation in myopic and hypermetropic eyes had better be deferred till we come to treat of those diseases respectively.

In what does the *mechanism* of accommodation consist? The older observers, as Thos. Young, thought the fibres of the crystalline were muscular, and hence named it the "musculus crystallinus." But Cramer and Helmholtz have galvanised the crystalline with but negative results. Cramer thought the iris was the agent of accommodation. The image of a flame thrown on the back of the vitreous he found rendered indistinct by sending a galvanic current across the cornea; this change did not occur after division of the iris. It is now, however, the generally-received opinion that it is the ciliary muscle which is the effective agent of accommodation. Porterfield distinctly states the muscular nature of the "ligamentum ciliare," and even goes so far as to compare it to other involuntary muscles. The anatomical researches of H. Müller, Van Reeken, and Rouget go to prove that the ciliary muscle, like the iris, is composed of two sets of fibres—in man of the non-striated, in birds of the striated variety,—a circular and a radiating. The circular fibres would by their contraction increase the convexity of the crystalline; the radiating would act as their antagonists in restoring the crystalline to its previous degree of curvature.(i) Has the iris any share in accommodation? I think not. The erudite author of the article "On the Optical Relations of the Eye" (in the *British and Foreign Medico-Chirurgical Review* for January, 1862) has said I have fallen into a mistake by asserting it has. Restricting the word "accommodation" to increase of refractive power of the eye, the reviewer is right. But I, in the paper he refers to,(k) used the word accommodation in a wider sense—that of the means of attaining distinct vision generally. This meaning of the word accommodation, however, I grant, had better be abandoned, limiting its signification to increase of convexity of the crystalline. That, however, the iris does play an important part in attaining distinctness of vision I have, in the paper referred to, proved experimentally. You all know the pupil contracts when we regard near objects; dilates for distant ones. Can you for a moment imagine such a constant occurrence to be devoid of all meaning? My theory is that the iris is an *auxiliary* organ for distinct vision—that the contraction of the pupil is intended as a corrective supplement to our accommodation, properly so called, by diminishing any slight circles of confusion in the retinal image that might possibly arise from inaccurate contraction of the ciliary muscle.

We meet with other such auxiliary agents in nature. No one doubts that we should be able to feel with the ends of the fingers without the innumerable papillæ with which they are beset; but no one either doubts that these are powerful auxiliaries in extending the fineness and range of our tactile sensibility. I beg, however, to here distinctly state, the chief muscle of accommodation is the ciliary, and that in our future studies we may almost disregard the auxiliary action of the iris. The best evidence of this are those cases of absence of the iris—either congenital or traumatic, in which accommodation remained unimpaired. A simple and convincing proof of the purely supplementary share of the iris in accommodation is, that if we place before the eye a thin plate of metal, or a card, perforated with an aperture equal to the minimum size of the natural pupil, we still retain our power of distinct vision for distant or near objects, notwithstanding we have thus altogether eliminated the action of the pupil.(l)

Le Cameus, Rohault, Schröder van der Kolk, and Arlt were advocates for the power of the extrinsic muscles of the eye, the recti and obliqui, producing accommodation by elongating the axis of the globe. This hypothesis may now be all but disregarded. Von Graefe (*Archiv. f. Ophth.*, ii.) observed the accommodation undisturbed in paralysis of all the ocular muscles.

The theory that the cornea changes its convexity is one of those traditions that, devoid of all demonstrated truth, has still retained its hold on some conservative minds. Any such change of curvature has been absolutely disproved by Helmholtz's exact observations with his ophthalmometer; this instrument would render apparent a change of $\frac{1}{200}$th of the radius of curvature of the cornea, while an accommodation for 5 inches demands a change of upwards of $\frac{1}{4}$ inch.

From what has preceded you will naturally infer that after operations for cataract all accommodation is lost. Without referring further to the erroneous opinions of Arlt, I may state that Dr. Young, at the commencement of the present century, showed that any *quasi* accommodation remaining, was, in this instance, really due to the circles of confusion being diminished by the smallness of the aperture of vision. In the paper in the *Glasgow Journal* (October, 1860, p. 272) is said:—"In the majority of these cases the patients have been able to accommodate their vision to different distances by bringing the two eyelids into such close apposition as to leave but a narrow linear aperture between them. . . If in such cases the eyelids be held open, and the patients be told to look through a pin hole in a card, the same effects will ensue as from their own instinctive approximation of the eyelids." It is not uncommon to find cases of double extraction in which in one eye a portion of opaque capsule with a hole in it remains; in such cases the apparently worse eye often enjoys the best

(f) *British and Foreign Medico-Chirurgical Review* for January, 1862, p. 41. *Vide* further five well-marked cases reported in the first number of the *Ophthalmic Review*.

(g) This property of atropine has been long known (*vide* Müller's "Physiolog. des Gesicht Sinnes," p. 200. Seven cases of belladonna poisoning reported by Dr. Letheby in the *Pharmaceutical Journal* for 1846, vol. i., p. 25.) Dr. Thomas Fraser has recently discovered that the Calabar bean possesses the remarkable power of contracting the pupil. Since his discovery it has been shown to possess a similar power over the ciliary muscle, and of thus producing an artificial spasm of accommodation. For a detailed account of the properties of the Calabar bean *vide* an analysis of Von Gräfe's paper (in the ninth volume of the *Archiv. f. Ophth.*) in the number of the *Ophthalmic Review* for March 31, 1864.

(h) Similarly the furthest point of critically distinct vision is termed the "far point."

(i) The precise mode by which this is effected is still an object of discussion. Mannhardt considers "if the iris and corpus ciliare, with its processes, are drawn back, (1) a pressure is exercised on the vitreous body, where it embraces the surfaces of the lens; (2) the zonula zinii is made tense.....the fluid in the canal of Petit subjected to increased pressure, which is transmitted to the equator of the lens.....the tension of the zonula zinii prevents the lens advancing, but not its tendency to alteration of form." (Bemerkungen über den Accommodations-muskel und die Accommodation, von Dr. J. Mannhardt, in the *Archiv. f. Ophthalm.*, iv., i.; p. 267.) Czermak has noticed that if, after having in the dark accommodated for the near point, he suddenly relaxed this effort, a fiery ring of considerable size appeared before him. This appearance was first observed by Purkinge, but can, according to Czermak, only be seen by few persons who possess great sensibility to such spectra, and have sufficient control over their accommodation. He regards it as an "accommodation-phosphene," due to "tension of the zonula zinii and traction of the surrounding retinal ring."

(k) *Glasgow Medical Journal*, vol. viii., p. 268. 1860. I have here experimentally proved that a pin-hole (1) confers distinctness on objects nearer than the eye, *per se*, would be otherwise capable of accommodating for (I have since found it also corrects the disturbing influence on vision of both convex and concave lenses for near or distant objects); (2) it increases the apparent magnitude of objects.

(l) In the *Archiv. f. Ophthalmologie*, vol. vii., pt. 2, p. 150, Professor von Graefe relates a case in which a partial separation of the iris having accidentally occurred, in attempting to remove a prolapsus, he removed the entire iris. Afterwards the patient read No. 20 at 24 feet, No. 1 at $5\frac{3}{4}$ inches, and had an accommodation of 1-$5\frac{3}{4}$, which closely corresponded with the normal amount of accommodation of a person of his age—viz., 27 years. A four-grain solution of atropine in one hour completely paralysed all accommodation, and induced a feeble degree of hypermetropia (of 1-60th to 1-70th).

vision on this same principle. Donders has distinctly proved, what was asserted a century back by Porterfield, that after the operation for cataract not the slightest true accommodation exists.

Before quitting this part of our subject I must direct your attention to a point which you may find useful to remember in a subsequent part of the course. I allude to the relation which exists between the degree of accommodation and the directions of the eyes. Speaking in general terms, as indicated long ago by Porterfield and J. Müller, when the axes of the eyeballs converge to an object at an angle (the greater in proportion to the proximity of the object) the crystallines *necessarily* become more convex by an automatic action of the ciliary muscle consentaneous with that of the internal recti muscles; and conversely when these muscles are relaxed and the axes of the eyeballs parallel, the two ciliary muscles are also at their minimum degree of contraction. (m)

ORIGINAL COMMUNICATIONS.

NOTE ON THE

AURICULAR-SYSTOLIC MURMUR; OR, THE MURMUR OF MITRAL OBSTRUCTION.

By W. T. GAIRDNER, M.D.

In the Address in Medicine, just delivered by Dr. Ormerod, before the British Medical Association, I find the following remarks:—

"To take a common instance: a murmur at or near the apex only, accompanying the first sound, rising in intensity with the continuance of the first sound, and ending suddenly with a snap at its closure, admits of more than one interpretation. . . Is it due to obstruction of the flow of blood from the auricle to the ventricle during the auricular systole, or to imperfection of the auriculo-ventricular valve, allowing regurgitation during the contraction of the ventricle? To the first explanation we may object that a direct mitral murmur such as is generally admitted to be of this nature, is quite unlike the murmur under consideration. It is soft, and closely resembles the murmur of sigmoid regurgitation. Such a murmur is very rare, while the murmur under consideration is not at all uncommon. It may be questioned, too, whether the contraction of the auricle, slight and momentary as experimentalists report it to be, is capable of producing so loud a sound. To the second explanation, I do not see that there is any insuperable objection. It assumes that the coaptation of all the portions of the valves is not simultaneous, but that when, at a certain point of the contraction, the valve is closed, the regurgitant stream is cut off, and the cessation of the murmur coincides with the sudden jerk of valvular tension. In favour of this view, it may be further urged that this murmur is not always a sign of organic disease. It is often a murmur of palpitation, where such disturbance of the rhythm of the heart's contraction is singularly liable to occur."

These words, which every one will recognise as the fruit of long and careful study by one well entitled to a hearing, appear to me to require a few observations. I believe that they well represent the scientific difficulties which have resulted from the varying language of one or two great authorities, but in no respect the ultimate conclusions at which the unbiassed analysis of clinical facts will enable us to arrive. And as the subject is one of some importance, on which I have for many years held opinions of a much more definite character than those of Dr. Ormerod, I will request his indulgence and that of your readers for the following remarks.

1. The murmur described in the first sentence quoted is quite evidently the one which I have designated as auricular-systolic ("Clinical Medicine," p. 574), and described as coinciding in rhythm with the systole of the auricles, and in almost every instance characteristic of mitral obstruction. To this designation of the murmur I still adhere for reasons presently to be given; but not so to all the details of Dr. Ormerod's description, inasmuch as the murmur in question very evidently *precedes* the first sound and the impulse, the whole of its physiology and its true pathological significance depending upon this fact.

2. The auricular-systolic murmur is never, so far as I have observed, "a murmur of palpitation," or, indeed, anything else than a sign of positive organic disease; and setting aside certain peculiar varieties of pericardial friction-murmur, and possibly some very rare endocardial conditions unknown, this murmur may be regarded as one of the most certain, simple, and intelligible of all our auscultatory signs connected with the circulation—viz., an almost pathognomonic sign of contraction with deformity of one of the auriculo-ventricular orifices, in by far the greater number of instances, of course, the mitral orifice.

3. I hesitate to affirm that the murmur described by Dr. Ormerod as the "direct mitral murmur such as is generally admitted to be of this nature" is a product of the theoretical imagination, but I strongly suspect it to be a result of imperfectly-developed doctrines of the rhythm of cardiac murmurs, aided by imperfect observation of the facts. It is quite true that in many or most of our clinical works a murmur "very rare," accompanying the second sound of the heart, and, therefore, resembling "the murmur of sigmoid regurgitation," is described as occasionally present in mitral obstruction; but I should like to ask experienced auscultators, such as Dr. Ormerod himself, in the interests of exact diagnosis, if they can be quite certain that they have ever heard such a murmur, and how often? For my own part, during at least a dozen years in which I have been accustomed to recognise the auricular-systolic murmur as that of mitral obstruction, and the ventricular-diastolic murmur (or that with the second sound of the heart) as most commonly that of aortic regurgitation, I am not at all sure that I have even once heard a murmur corresponding to this generally-admitted description of the "direct mitral murmur."

4. The affirmation that a "direct mitral murmur" of the kind here referred to is "very rare" ought, I think, to give rise to a reasonable suspicion of the exactness of the observations on which this general admission is founded. Many experienced auscultators have, in fact, denied or doubted the soundness of the doctrine above enunciated; (a) and I am strongly of opinion that most of the alleged cases of mitral murmur with the second sound would probably resolve themselves, on more accurate examination, into cases of the auricular systolic murmur preceding the first sound, or perhaps, as I have described it ("Clin. Med.," p. 575), prolonged, apparently out of the second sound, through the period of rest, but still abutting (as it were) upon the first sound. Such cases have often occurred to me, and are at times rather confusing.

5. Dr. Ormerod admits the "not at all uncommon" existence of a murmur with the first sound, heard at the apex, and quite different from the usual murmur of mitral regurgitation; but he fails, I think, to give an adequate explanation of its occurrence; indeed, his explanation is such as to leave the whole question confessedly in obscurity. The hypothesis alleged as to the non-simultaneous closure of all parts of the mitral valve might perhaps serve the purpose of an explanation in the cases referred to, in which the snap of the valves forms the close of murmur; but nothing is more frequent in actual observation than the combination of the auricular-systolic and ventricular-systolic murmurs in the same case, and I cannot see how Dr. Ormerod's view can be made to explain both of them, in such cases, on the supposition of mitral regurgitation. I have very particularly followed out the description and characters of this combination in the work above referred to, pp. 577-78, and have given numerous instances tending to prove its diagnostic value in pp. 597-600, and again in the very peculiar and interesting case of Wm. K., illustrated by a diagram in p. 605. Regarding these diagnostic refinements, therefore, as well-ascertained, and of real practical as well as scientific value, though by no means so generally recognised as they ought to be, I trust that neither Dr. Ormerod nor your readers will consider that I have failed in the respect which I really feel for the author of the "Address in Medicine," in submitting these criticisms to their perusal.

Glasgow.

(m) This harmony of the recti and ciliary muscles is, however, not absolute. Both J. Müller and Plateau have remarked that maintaining a fixed convergence of the optic axes we possess the power of rendering vision indistinct by a voluntary modification of our accommodation. Donders has shown the same thing—viz., that with a given convergence of the eyeballs we may see distinctly with low convex or concave glasses, or with prisms with their refracting angles inwards and not too strong. I have myself discovered another fact in corroboration of these views—viz., if by "false" convergence of the optic axis, you evoke double images of a wire-optometer, you may nevertheless see each image perfectly defined and distinct, although the accommodation and convergence of the eyes are in such a case in direct contradiction to one another.

(a) I can understand those who attempt to explain away the mitral direct murmur as non-existent; but if the mechanism for creating such a murmur as described exist at all, it is difficult to understand how the murmur should be a rare or doubtful one.

USE OF A DOUBLE-EDGED KNIFE, WITH ITS CUTTING PART BENT AT RIGHT ANGLES, IN OPERATIONS ON THE EYE.

By JAMES M'CRAITH, M.D.,
Surgeon British Seamen's Hospital, Smyrna.

I am induced to send you a report of the following case, which seems to me interesting from the form of knife used, and from the complete success which attended a double operation on the same eye. I do not see in any work on English Ophthalmic Surgery any reference to such a knife; nor is any figure of any such given in Weiss' catalogue. I found the knife in a case of French instruments here. The length of the handle is that of the ordinary cataract knife; the shaft the same. The cutting part is bent on the flat to a right angle. It has a double cutting edge. The length of the bent cutting part may be a little more than the diameter of the human cornea, and its greatest breadth (the breadth of the cutting part) somewhat less than the diameter of the cornea. It was made evidently for the operation of extraction on the superior part of the cornea in cases where a deep sunk eye made such an operation impossible with the usual cataract knives; its object being such, any operator will fashion it to suit his taste by making it spear pointed or round edged as he may prefer. It may be made like a gum lancet, if the operator so prefer it, with a proper bend in the shaft to allow of its use.

Demetri, aged about 30. I found this poor fellow, on one of my visits to Ephesus, turning a wheel to pump water to a reservoir for feeding the locomotive engines on the line of railroad. He was entirely blind for three or four years. Whilst employed in some mining operations on the works, a charge of powder was blown into his face. He was severely burned; and, after a long sojourn in Hospital, was discharged blind. He is blind ever since, and has to be led about. Was told by all whom he consulted here that nothing could be done for him. Upon examining his eyes, which I did without being asked to do so, I found the right one shrunk, and a white albugo occupying the place of the cornea; nothing to be done for it. The left eye was covered by an albugo, almost as extensive as the cornea, but still leaving a small extent at the upper part, usually covered entirely by the lid, which allowed the iris to be distinguished through it, and through which, when in a proper position, the patient had a faint sensation of light. I sent him to Smyrna to Hospital. Assisted by Dr. Chasseaud, I opened the cornea at the upper part, brought out, with an Assalini's forceps with teeth, a good piece of the iris, and snipped it away with a scissors. The result was a good-sized artificial pupil. This operation on upper part of the cornea would have been impossible with the ordinary knives, on account of the conformation of the parts in this patient. But my patient after this operation was as blind as before, though sensible of much more light entering his eye. A cataract was now visible through the artificial pupil. Even had I known of the existence of cataract on the occasion of the operation for artificial pupil, I could not have attempted extraction at the same time, as there was adhesion, and obliteration no doubt of the pupil by the original accident. Nothing remained, of course, except attempting, by breaking up the lens, to cause its absorption. I, therefore, a few weeks after the first operation, passed two cataract needles through the cornea, and broke up, as well as I could and as extensively as I judged necessary, the opaque lens. At this second operation I was assisted by Dr. Chasseaud, and also by Dr. Duckworth, at present Resident Physician to the Royal Infirmary, Edinburgh. This talented young Physician, whose present position (gained by his own merit and talents) promises a most brilliant and useful career, happening to be passing through this country as a traveller, he, I say, most kindly assisted at the operation. The result was most satisfactory. The poor blind man was restored to a useful degree of sight. He has learned lately to keep the eye turned downwards, which was difficult at first; and the opaque cornea, by the natural stimulus of light, I suppose, seems to have considerably cleared about the artificial pupil; and the poor fellow walked alone, some few weeks since, to the Hospital to see and thank me. He possesses a most useful degree of vision, much greater than I could have hoped for.

Statue of Larrey.—On August 15, the anniversary of the *fête* of Napoleon I., the festivities were commenced by the inauguration of the statue of Larrey, erected at Tarbes, his birth-place.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

A CASE OF CONTINUED FEVER WHICH, IN THE EARLY STAGE, APPEARED TO BE TYPHOID, AND IN THE LATER TYPHUS.

(Under the care of Dr. GULL.)

We are indebted for the report of this case to Mr. Buck.

Edward C., aged 17, assistant to a photographer in the City, was admitted into Guy's Hospital July 3, 1864, Stephen Ward. Said that he had been ill a month; could not recollect anything about his illness, except that he had been very much purged. His skin was noticed to be hot and dry; cheeks flushed; nostrils stained with blood and excoriated, his lips also; his tongue was rough, and covered with very foul greenish-yellow fur, with the edges ulcerated. His chest was deformed, being unusually elevated on the right side and flattened on the left. The abdomen was flat, and not painful to the pressure. Respirations 36; temperature 100·5; pulse 112 and compressible.

July 5.—Pulse 104; respirations 28. Had a few spots on the abdomen, which were rose-coloured, elevated, and disappeared on pressure; a circle of ink was made round them to see whether they would disappear or not. ℞ Infusi serpentariæ, ℥j.; tinct. ejusdem, ℥j.; sodæ sesquicarb., gr. x.; ammoniæ sesquicarb., gr. v., t. d. s.; brandy, ℥iv. per diem. Diet, milk and beef-tea.

7th.—Bowels much relaxed; pea soup stools. Hab. enema amyli. c. tr. opii. ♏xxx., statim.

8th.—Skin was very dry; well-marked dulness on percussion over the cœcal region; pulse, 112; respirations, 36.

11th.—His bowels were still relaxed; pea-soup motions, containing no blood; tenderness on pressure over the right iliac region. The spots on the abdomen that had been marked on the 5th instant had disappeared, and apparently no fresh spots had come out. He was delirious at times; the pupils dilated.

12th.—The trunk was covered with a mottled eruption, exactly resembling the typhus rash. On the right cheek was a bright, roseate patch, while the left was very pale. Dr. Gull remarked that in former years in this Hospital, when we saw that appearance of the face, we said it indicated mischief in the ilium. Here the rash looks like typhus, and the face like typhoid. The patient's bowels were still relaxed; yellow ochrey motions; pupils dilated; low muttering delirium; hands hung down by the side, very tremulous. Sordes collected about his lips and teeth. There was still well-marked dulness on percussion over the right iliac region, with a feeling of resistance. The splenic dulness had increased, and the edge of the spleen could be distinctly felt.

13th.—While Dr. Gull was standing at the bedside of this patient and looking at the abdomen, he remarked how suddenly a mottled eruption had appeared over the belly; it had the appearance of subcutaneous mottling. The enlarged spleen could be distinctly felt. His countenance was dull and muddy-looking. He was still delirious. Sordes about the teeth; laid low in the bed; bowels relaxed; motions as before.

18th.—The abdomen was more swollen, and also tympanitic. Several purple-looking patches had appeared on parts of the trunk. He had vomited a liquid like coffee grounds; the motions had the same appearance. Respiration, 44; pulse could not be felt; temperature, 101. Dr. Gull remarked that this poor boy appears to be sinking fast. Died at 4.15 p.m.

After leaving the bed-side of the patient, Dr. Gull observed:—This is a very interesting case. When the patient first came into the Hospital I had little or no doubt that it was a well-marked case of typhoid fever. His appearance, his history, the rash, the relaxation, the dulness on percussion over the ilium,—all pointed in that one direction. But in order to be sure, I marked the spots, and a few days afterwards found that they had disappeared, and, instead of a fresh crop of typhoid spots, the skin had a general mottled appearance all over the trunk. When this first occurred, Dr. Gull asked,—Is this a case of typhus co-existing with typhoid? Can the two fevers exist in the same body? Dr. Gull went on to say that whenever he had seen a mistake made in the diagnosis, it had been mistaking the appearance of the early spots of typhus for those of typhoid. Referring

to another patient in the same ward, Dr. Gull said that when first that man came in the spots on the abdomen were few in number, discrete, rose-coloured, elevated, and disappeared on pressure; but on the arms there was a mottled appearance. The physiognomy had none of the characteristics of either fever in particular. No positive opinion was given; the spots were marked with ink, and when Dr. Gull saw him again, that was four days afterwards, the rose spots had faded, and the measly rash had come out very distinctly all over the body and extremities. Dr. Gull had then no doubt that it was a case of typhus, although on the first appearance of the rash he could not say which it was.

Post-mortem Examination, conducted by Dr. Wilks.—No petechiæ on the body. In the larynx a small ulcer was detected at the root of the arytenoid cartilage. Indications of recent pleurisy over the lower lobes of both lungs; the back parts of both lungs much congested, and also affected with recent pneumonia. Heart appeared healthy.

After opening the abdomen, Dr. Wilks remarked that there had been general peritonitis of some days' standing. The intestines and the other organs were firmly united together by plastic exudation. On separating the coils from one another, the intestine gave way, or, rather, a hole was exposed which had been previously closed by an adjacent coil, but no fæcal matter was noticed in the abdomen before the rent had been discovered. On opening the intestine it was clear that the patient had had typhoid fever, but, judging from the characters of the ulcers, it was probable that the fever had existed four or five weeks; that the patient was getting well, for the deposit had entirely sloughed out of some of the patches, and the glands appeared to be healing very fast,—a few had almost recovered. There were numbers of solitary glands in which small ulcers could be seen. In some of these also the greyish white typhoid deposit was beginning to slough out; in others no deposit remained, leaving merely the cicatrices; one gland about three feet from the iliac valve had given way. The mesenteric glands were only slightly enlarged; the liver appeared healthy, the kidneys also; the spleen was somewhat, but not particularly, enlarged, easily torn, but not black nor remarkably soft. The brain was not examined.

Dr. Wilks made the following remarks:—It is evident that the boy had had typhoid fever, and that he was getting well. Although I did not see him during life, but from what I have heard of the case, it looks as if the patient had been recovering from typhoid when he caught typhus. Dr. Wilks, moreover, said that it reminded him of a somewhat similar case that had occurred in the Hospital a few years ago. In 1855, a man, aged 38, whilst in the Hospital, under the care of Dr. Gull, had typhoid fever, from which he recovered favourably. On April 1, Dr. Gull found him covered with the mulberry rash. He had passed his motions involuntarily; pulse 160; respirations 40; and he died in a few hours.

At the post-mortem numerous petechial spots were seen on the trunk and extremities. On examining the cerebral organs there were found several opaque patches on the arachnoid; the pia mater was much congested, and the whole of the brain substance was firm but full of blood; the surface of the lateral ventricle was granular; the spleen was large and very soft; in the ileum, close to the valve, were several irregular, puckered, smooth parts—evidently cicatrices—at the situation of Peyer's glands.

Dr. Wilks further observed that a typhoid rash might shortly before death put on very much the appearance of the typhus, and illustrated his remarks by mentioning the following case.

A CASE OF TYPHOID FEVER WITH THE CHARACTERISTIC SPOTS, IN WHICH SHORTLY BEFORE DEATH THE ERUPTION RESEMBLED TYPHUS.

(Under the care of Dr. BARLOW.)

A young man, about 18 years of age, was admitted under the care of Dr. Barlow. He complained of palpitation, nervousness, and of other vague symptoms. Careful examination did not reveal any organic disease. There was typhoid fever in another division of the ward, but the patient had no direct communication with the fever case.

November 9.—He was taken ill with feverish symptoms and epistaxis.

11th.—He took to his bed. He appeared so ill, that the epistaxis alone suggested to Dr. Wilks that it would turn out to be typhoid fever. The case became more developed.

16th.—The face was flushed; there were a few rose spots on the abdomen. He had diarrhœa.

18th.—There were about twenty spots.

20th.—About a hundred spots on the trunk and extremities.

22nd.—The lower extremities were covered with spots, which now, from the great congestion of the lungs, had a livid appearance. After this he got worse and worse, and the skin, owing to the great congestion of the lungs, became livid and dark, so that the eruption had much more the appearance of a mulberry rash, but the spots still disappeared on pressure. The diarrhœa ceased, and he died.

Post-mortem showed no petechia, but the surface of the body appeared mottled, which Dr. Wilks remarked might have been due to decomposition or the state of the blood. The appearances in the ilium showed the usual changes occurring in typhoid fever.

These abstracts were taken from Dr. Wilks' post-mortem records.

Dr. Gull, while looking at the changes that had taken place in the ilium of his patient, remarked that in some of the solitary glands the typhoid deposit appeared to be of a more recent date to that in the rest of the glands, which led Dr. Gull to suggest that he might have had a double typhoid. At the same time, he observed that it is an interesting case, for not even the post-mortem has made it appear so satisfactory as he anticipated, and that if the patient has died of the primary attack of typhoid it has occurred at an unusually late period of the disease.

In order to throw some further light on the question, Dr. Gull suggested that a more complete history should be obtained of his illness previous to coming into the Hospital, and especially if it could be traced that he came from a typhus locality. Dr. Sutton happened to be going round with Dr. Gull, and he volunteered to make the necessary inquiries. Dr. Sutton, after making careful inquiry in the street that he had lived in, could not find out that there had been any fever there. The patient had lived with his parents in a new neighbourhood near the Old Kent-road, which on inquiry appeared to be badly drained. About a month before he went into the Hospital he had been observed to be looking weak, walked languidly, and appeared to be light headed. Yet he was not confined to his bed. His father slept with him all the time, and a little girl attended to him during the day, both of whom at the time of Dr. Sutton's inquiry were quite well. No case of typhus fever had occurred in the family nor among his friends. The fortnight before his illness he visited Guy's Hospital to see his mother, who was at that time in the Surgeon's ward, but there had not been a case of fever in the same ward that his mother was in for some time past. It would have been satisfactory if it could have been proved that he came from a typhus district, yet nevertheless there can be no doubt that he had been exposed to the contagion of typhus poison, for there had been, and was at the time of his admission, typhus in the same ward that he was taken into. Therefore it is probable that he was approaching towards recovery from typhoid when he caught typhus and died of it.

In favour of this view of the case is the fact that when he first came into the Hospital he was suffering from typhoid, that the eruption resembling typhus did not appear until he had been in the Hospital nine days.

On referring to Dr. Murchison's paper on the co-existence of fevers, it will be seen that the characteristic rash of one fever did not appear until that of the other fever was subsiding, or had subsided. In a case of typhoid of three weeks' duration, the patient, fourteen days afterwards, had a relapse with a return of the rose-coloured spots, and the day after that a mulberry rash appeared. In another case, on the 27th day of typhoid a typhus rash appeared; and in another case, on the 18th day of typhus, rose spots appeared.

From what we have observed while visiting the various Metropolitan Hospitals, it appears that, in the early stage of continued fever, it is sometimes impossible to say whether it is typhus or typhoid; for the eruption in the commencement of typhus may so closely resemble in all its characteristics that of typhoid, and unless it is borne in mind that it is the "manner of development" of the spots, and not their appearance to the eye, which establishes the diagnosis between the two fevers, a mistake is not unlikely to be made.

The above is very interesting in a practical point of view, especially when it is remembered that when a Physician is called in to see a case of fever,—he is expected to say at once not only that it is continued fever, but also whether it is typhoid or typhus. If an opinion has been given which of the two it is, and at a later stage, when the eruption is more developed, a second Physician happens to see the patient, and

contradicts the former opinion, the first Physician is considered by the friends to have made a great mistake, and he gets discredit.

In order to show how very difficult this diagnosis is in some cases, we would refer to a lecture delivered by Dr. Peacock at St. Thomas's Hospital, and reported in the *Medical Times and Gazette*, January 3, 1863. Dr. Peacock remarked, speaking of a case in question:—"The eruption also, when first seen, bore an exact resemblance to the usual appearance of typhoid spots, and it was only by watching the case that the true character of the rash was made apparent. (The case turned out to be typhus.)" Dr. Peacock has also referred to cases of this kind in his lectures on fevers.

Moreover, there may be no eruption. This is especially so in children and in mild cases in adults; or the spots of typhus may be few and discrete; or the eruption of typhoid may be so copious that it is impossible to tell whether there are any new spots (see a case of enteric fever in Gairdner's "Clinical Medicine," p. 143.); lastly, as we have before mentioned, the skin in typhoid may put on a mottled appearance just before death, so as to closely resemble the appearance seen in typhus.

A CASE OF TYPHUS FEVER TREATED WITHOUT MEDICINES OR STIMULANTS—REMARKS ON THE TREATMENT OF FEVER.

(Under the care of Dr. GULL.)

Paul C. C., aged 22, admitted June 17, 1864, in Stephen Ward, and placed under the care of Dr. Gull. Has resided in the Borough. During the last three or four days has suffered from premonitory symptoms of fever. The skin was hot; countenance dull and heavy. There was no deafness. His tongue was clean, but dry. Pulse frequent and hard. The heart-sounds normal. Lungs appeared to be healthy. He complained of headache and sleepless nights. There was a mulberry rash over the chest and over the arms. The spots were of small size and partly disappeared on pressure. Dr. Gull ordered him to have fresh and light diet, good nursing, and an ounce of infusion of camomile flowers.

18th.—There was a confusion of intellect; great heat of the skin; thirst was intense; the rash remained of the same character.

20th.—Laid on his back in a state of stupor, which came on gradually during yesterday. His tongue was moist. The skin hot and day. His bowels were rather loose.

21st.—He appeared to be much the same. Bowels not so loose; the stupor very profound; the tongue moist. The same treatment continued.

22nd.—The stupor was less.

23rd.—Muttering delirium. The lips were encrusted with sordes. The tongue was dry. Bowels open. Urine passed freely. The abdomen great, and the spleen could not be felt.

24th.—The muttering delirium continued. He sank down to the bottom of the bed. He did not take food. The thirst was great.

25th.—Seemed to be slightly improved.

26th.—Was rational at times, but relapsed towards evening.

27th.—Took his food better. The rash was fading.

28th.—Continued to progress, and the rash had nearly all gone.

30th.—Has slept a great deal. Tongue was clean; bowels were open; urine was clear. From that time he steadily improved. Throughout his illness the treatment was the same.

This is a copy of the report taken by Mr. Warlow, the clinical reporter:—

	Pulse.	Respiration.	Temperature.
June 18	92	28	103·5
,, 19	92	28	103·3
,, 20	92	30	100·6
,, 21	96	30	102
,, 22	100	31	102·6
,, 23	102	31	102·6
,, 24	120	33	102·3
,, 25	102	26	102·6
,, 26	85	24	100
,, 27	90	28	98
,, 28	85	26	98·2
,, 29	83	30	97·8
,, 30	75	26	96·8
July 1	80	23	96
,, 2	80	25	96
,, 4	52	17	96·9

We are indebted for the foregoing particulars to Mr. G. Henry Savage.

There was also in Mary's Ward a little girl, now convalescent from typhus fever, followed by purpura, who during her illness had had no physic excepting an ounce of mint-water three times a-day. Dr. Gull remarked at the time that he first prescribed for her that fresh air, light nourishing diet, careful nursing, will carry this patient through the illness without medicine.

Also at the same time, and in the same ward, was a young woman with well-marked typhus. Her pulse was 140. Dr. Gull said the patient appears to have been a healthy, strong young woman, and probably she would go through the fever without a dose of medicine, although at the present moment the great stupor, the deafness, the well-marked trembling, and the quick pulse all show how low she is. Moreover, we must remember that she has to go through several more days before the crisis, therefore we will give her four ounces of brandy per diem and only very little physic. Infusion of serpentaria an ounce three times a-day, and she shall have a nurse to attend to her alone, and regular but not too frequent administration of light food.

This is bearing out what has been very emphatically laid down by more than one Physician, that when the pulse in the early stage of typhus or typhoid is very frequent, the patient requires to be well supported, in order to carry him through the later stages of the fever.

Dr. Gull proceeded to remark: I do not believe in giving enormous doses of brandy in fever. My experience is against that system. I am sure of this that, if you have a severe case of typhus, and the patient is likely to die, no amount of brandy will save him.

Another part of the treatment that requires your attention is this, when I am called in to see a case of fever, I am not unfrequently told that the patient has been given something every half hour. In one case they said every five minutes. The plan of continually feeding Dr. Gull very strongly condemned; further saying, it is a very doubtful question in my mind whether much, or if any, of the nourishment given in severe cases is assimilated. But there is another way to support the patient; keep him cool, sponge his skin over three or four times a-day, give him plenty of liquids to support the renal respiration, and plenty of fresh air to support the pulmonary respiration.

We have reported these remarks in detail, thinking they cannot be too well known. They agree with what the late Dr. Todd used so strongly to insist upon, that acute diseases should be treated on a principle. That principle, as we have many times heard Dr. Wilks remark, ought to be based on the natural history of the disease, which shows that acute diseases tend to get well. Probably it is only when there is a considerable tissue degeneration, or from accidental circumstances—as in perforation of the bowel in typhoid fever—that the patient dies.

Dr. Gairdner expresses his view on the treatment of fever as follows:—"Entire absence of that extreme anxiety to be doing something—that fidgettiness (as I call it) in detail—which you sometimes see practised, and still more advocated in books, as a matter of routine." Dr. Gairdner goes on to say that he has learned by facts rather than by direct instructions, to do almost nothing as a system of routine, neither by depletion, evacuants, nor by stimulants; and further writes, "It is not through slovenliness, or from want of thought, or of due anxiety, that I have proceeded thus, but on principle."

Dr. Barlow also has treated several cases of typhoid fever on the same plan with success, in some not even administering either stimulants or medicine.

This plan of treatment is open to one objection, as the following amusing anecdote, told to us by Dr. Barlow while going round, will show:—A man had just recovered from typhus fever, the treatment of which had been conducted without any physic. Dr. Barlow observed one day to this patient that he thought him now well—that he might go out of the Hospital; when the man turned round and said to Dr. Barlow, "Yes, Sir, I think I am well enough now, but I don't think I owe much to the Hospital for that, for I have never had a dose of physic since I came into it."

Lastly, we would make one more remark, that (to use the words of Dr. Aitkin) while we generalise the disease we should be careful to individualise the patient.

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Medical Times and Gazette.

SATURDAY, AUGUST 20.

"UN PEU DE DRAINAGE."

Every Medical Practitioner ought to take a holiday. The severest ascetic could not say that to subtract one fortnight from a year of the closest and most exhausting toil, Sundays and weekdays, night and day, is an act of over-indulgence, neither is it a selfish act. A man who thinks nothing of his own recreation should claim a holiday on the ground that it will make him more fit for his duties to his patients for the rest of the year; and every third or fourth year at the least the Medical Practitioner should visit Paris. With the present cheap and easy system of railway travelling, a man is really to blame who neglects to visit that centre of modern civilisation and very heart of Europe, political and scientific. It is impossible but that that which fills the mind with new and agreeable ideas must add an alacrity, and zest, and power of invention in the ordinary duties of life. The English Practitioner at Paris should apply to the "Administration Générale de l'Assistance Publique" for an order to visit the Hospitals. This may be got in a very few hours, by the intervention of the very obliging clerks at the Embassy. Then he should rise early, swallow a little cup of *café au lait*, and sally out by half-past seven to attend the clinique at some Hospital. We recommend him to begin with the clinique of M. Chassaignac, at the "Lariboisière." He will see much to admire in the arrangement of the detached blocks of which this celebrated Hospital consists, of the chapel, and kitchens, and of that famous apparatus for pumping fresh air day and night into every ward. If he chance to find himself there, as we did, last year, on a glorious morning in September, with a sweet, fresh-flowing air of the most genial temperature playing about him, he may wonder, as we did, why they should not throw open every window and door, and leave the ventilation for a time in the hands of Nature herself. True, the air in the wards was not *offensive;* but it was not fresh. Considering the early hour, and that all the dust arising from sweeping floors and rummaging the beds was at its height, the air of the wards with their every window closed was marvellously pure. But it smelled and tasted like close bed-room air; whilst outside the buildingNature had provided that morning one of those grand,delicious, and softly-moving breezes, which would have cleansed every corner of the wards, and given freshness and appetite to the inmates, had it not been cautiously shut out in favour of the machine-driven blast. But let this pass. Our visitor will soon forget the building, and find enough to attract his attention in the practice of M. Chassaignac. If his Surgery were based upon the traditions of the Borough, or St. George's, he will see much that will be quite new to him. There are the cases of bad burns, treated simply with flour; and certainly we never saw any of these injuries under any other treatment doing better, or with so little to offend the nose. Then there is the system of *écrasement.* Why do we talk of a *clean cut* as if that were the only *clean* mode of dividing tissues? All cuts are really a series of petty tearings and crushings; but they are called *clean* because the instrument affects only so much of the tissues as lies in the line of division. But why may we not have a clean rent, or a clean split or crush? Midwifery Practitioners unluckily see sometimes the *beau ideal* of a clean rent when the head sweeps out of the pelvis (Mr. Vincent, of St. Bartholomew's, used to praise *clean rents* for their powers of healing); and M. Chassaignac has taught us the value of a *clean split.* English Surgeons have not been slow to appreciate this method of dealing with tumours of the larynx, uterus, and rectum, both as regards its mechanical facilities and the physiology of the wounded surface. But it will make them rub their eyes to hear of lithotomy by *écrasement.* But the greatest and simplest and most generally useful of M. Chassaignac's special modes of treatment is the *draining tube,* and we doubt whether the Professional mind on this side the Channel is yet sufficiently alive to its merits. Most of our readers have heard of it—a little india-rubber tube, perforated with holes, and introduced into suppurating cavities, in order to provide for the gradual, constant, and immediate discharge of all secretion without admission of air. Any one who follows M. Chassaignac for a few mornings, and hears him order *un peu de drainage* will see the class of cases to which the method is applicable; and if he shares our good fortune he will see some of the results, and hear a clear exposition of the very simple principles on which it is based. As the visitor follows from bed to bed amongst the chronic Surgical cases attended with suppuration, he will see here a thigh, there the back or the breast, or possibly a tarsus swelled into that too-familiar lump indicative of scrofulous caries, and in each case one, two, or perhaps half a dozen of the tiny black tubes passing right through the diseased part; in fact (in the case of a diseased tarsus, for example), wherever there is, or threatens to be, a sinuous opening, there M. Chassaignac orders *un peu de drainage.* As he passes round in his visit, the tubes are examined to see if they flow freely, and the edges of the aperture are just touched with a solution of lunar caustic, to supply which the clinical clerk follows with a bottle of the solution, and a handful of wooden skewers armed with a little piece of cotton wool, which are rapidly used and thrown aside. This protects the orifices from ulcerative action, and from possible contamination from without. The principle of the drainage system is clear enough. A bone is carious; particles of the tissue in a state of decay are cast off, and, mingled with the exudations of the surrounding parts, they form a petty swelling. This cannot be absorbed in most cases; and it acts as a source of irritation to the neighbouring tissues, and tends to spread the morbid action of which it is the result. In ordinary practice, when it has accumulated in quantity to form an *abscess,* it is discharged by incision, if need be. But fresh collections form, and discharge themselves in other tracks, till the whole member is riddled with unhealthy sinuses. Here drainage does well what the best efforts of Nature point to, but accomplish ill. It provides at once an exit for discharge and necrosed particles, through a track which the Surgeon chooses, and which does not add to the severity of the original disease, for the hole made by the fine trocar, which introduces the tube, is a very slight injury. But this slight wound accomplishes all that can be done by a *free incision.* Again, instead of waiting till extensive disease has resulted in large abscesses or in a heroic operation of excision, or of gouging, these little tubes do the work of the gouge piecemeal and incessantly. We do not say that English Surgeons are unacquainted with the tubes, but they do not know enough of their *preventive* functions. Surgical books contain cuts of gouges, and of *osteotrites* for cutting or grinding away carious bone, when the case has become a matter of life or limb; but they do not tell us to bore a tarsus with the little tube, which shall stop the mischief at its outset. As to the results, we saw at the clinical lecture patients presented cured, who had suffered from lumbar abscess

following vertebral caries, and from various other scrofulous diseases of bone. The exposition of the method and of the result was admirably given, showing immense shrewdness and ingenuity, together with that thoroughly practical seeking for *results*, which we are apt, in these islands, to think peculiarly our own. In fact, a compatriot whom we met at the Lariboisière, out on a holiday, like ourselves, who had the good sense to go of a morning and pick up a few "wrinkles" at the Hospitals, summed up his admiration of M. Chassaignac by saying, "By G——, he's every inch an Englishman!"

SMITHYMAN *v.* WILSON.

There are two sides to every occupation, from a Prime Minister's to a street Arab's. Life itself has its bright and its dark phases, and philosophers tell us that the degrees of good and evil are meted out with more even-handed impartiality than at first sight appears. Our Profession in relation to the general public has its clouded as well as its sunny aspect, and we are bound to acquiesce in what is but a special application of a general law. We have no more right to expect gratitude from all patients than we have to look for talent or virtue in every person we meet in the highway. If gratitude with the great mass of mankind means a due sense of favours to come, and if all men think all men mortal but themselves, it is clear that the doctor's chances of receiving it must be exceptional. The histories of most Professional lives, were they known, would go far to confirm the truth of the two maxims.

Acquiescing, therefore, as we do, in the inevitable law which governs human affairs, we are not inclined to assume the office of Professional grievance-mongers. Occasionally, however, we acknowledge that our philosophy and *sang froid* are overcome. Some case occurs in which a Medical man is dragged before a public tribunal and mulcted in heavy damages because he interfered to protect persons from the violence of a seeming lunatic, or because a case has terminated unfortunately, despite careful and scientific treatment. No consideration of Professional reputation, previous character, or purity of intention is allowed to stand between the plaintiff and his victim. A verdict for the former is a matter of course, and the amount of damages is the only question which the jury think themselves called on to decide.

The recent case of Smithyman *v.* Wilson, tried before Justice Shee at the Shrewsbury Assizes, is one which pointedly illustrates how hopeless it is for a Surgeon to attempt to establish a defence, however well founded it may be in science and fact, against a charge of neglect or want of skill. The plaintiff in the action was a spade-plater at Stourbridge, and a member of a lodge of Odd Fellows there. The defendant, Mr. Wilson, is Surgeon to the lodge. On the night of the 14th of March last the plaintiff fell over the trap of a cellar and injured his shoulder. On the following morning he called in Mr. Wilson, who found the shoulder dislocated downwards and outwards. The defendant, with the assistance of a woman who was present, reduced the dislocation, by placing his closed fist in the axilla and using extending force. The head of the humerus went into the glenoid cavity with an audible snap. By placing the elbow close to the side and raising it over the head, Mr. Wilson satisfied himself that the dislocation was reduced. The shoulder and arm were enormously swollen, insomuch that there was a difficulty in the first instance of determining whether any fracture had taken place, and the defendant when examining the shoulder and moving the arm asked the man if he felt any grating. This was afterwards made use of by the plaintiff's counsel to throw a doubt on Mr. Wilson's diagnosis. The arm was put in a sling, and bran poultices were ordered to reduce the swelling and inflammation. The defendant saw the man the next day and examined his arm. He found that the head of the humerus had slipped out a little, and replaced it. He continued to call on the man frequently for about a fortnight — the shoulder all the time being in its place (as proved by the man's admitted ability to bring his elbow close to his side), and the swelling of the parts gradually subsiding. After this the man attended at Mr. Wilson's surgery up to March 31, on which day he alleges that he called and requested Mr. Wilson to examine the shoulder stripped. Mr. Wilson satisfied himself, by moving the arm about, that the head of the bone was in position, and told the plaintiff that there was no occasion for him to take off his coat. He merely ordered him to continue the poultices and fomentations. Mr. Wilson did not again see the plaintiff. The latter called at his surgery on April 8, but Mr. Wilson was then ill in bed. His housekeeper was desired to tell the man that he could see Mr. Wilson in his bedroom, but the plaintiff declined, telling her that "his arm was going on all right," and that he only wanted some liniment, which was supplied under Mr. Wilson's direction. He did not call again, but on April 12 (twelve days after Mr. Wilson had seen the arm), he went to a Mr. Harding, a Surgeon, of Stourbridge, who found the arm dislocated. Mr. Harding tried to reduce the dislocation, but did not succeed, although he obtained the assistance of two Messrs. Freer, Surgeons of the town. Mr. Harding, it is to be observed, did not communicate with Mr. Wilson. The following day the plaintiff went to the Birmingham Hospital, where Mr. Baker put him under the influence of chloroform and reduced the dislocation. Mr. Baker said that when the arm was put into the cavity he heard a grating sound, and from his examination of the shoulder he had come to the conclusion that a portion of the glenoid cavity had been chipped off at the time of the accident. After the arm had been set by Mr. Baker, it again dropped out, and was again replaced. The man remained in the Hospital thirty days, and it was stated that he would not again be able to use his arm for working with the hammer.

At this point in the narrative we would make one or two observations. It appears to us abundantly clear that up to the last interview between the plaintiff and defendant the arm was in its place. By the plaintiff's admission on the trial he could during the time of Mr. Wilson's attendance, after the dislocation had been set, bring his elbow to his side. This is, we assert, ample evidence that the head of the bone could not have been in the axilla. Mr. S. Cooper, in his First Lines of Surgery, writes:—"This latter circumstance" (whether the patient can put the elbow close to the side) "is one of the first things about which I usually make inquiry, when called to a supposed dislocation of the shoulder; and if the patient can put his arm close to his side, I then know that there cannot be a dislocation into the axilla." It is, in fact, an axiom in Surgery. The question whether any chipping of the glenoid cavity had occurred was in reality an open one. The grating which Mr. Baker thought he heard on reducing the dislocation a month after the accident could not be held to prove fracture. On this point we are inclined to adopt the explanation given by Mr. John Adams, of the London Hospital, who stated in his evidence at the trial, "that such a symptom was not uncommon, and he attributed it to the tendons having been ruptured at the time of the accident." In either view the plaintiff adopted the only rational treatment. He reduced the dislocation when he first saw the patient, kept the arm in position by means of a sling, and adopted means to diminish inflammation and swelling. Mr. Baker and Mr. Adams, both of whom appeared as witnesses for the defendant, were unanimous in asserting that Mr. Wilson's treatment was correct. We are, therefore, led to the conclusion that after Mr. Wilson's last interview with the plaintiff the arm again slipped out of place, a circumstance over which of course the defendant could have no possible control. However, it was on this that the action against Mr. Wilson was brought. The counts charged him with want of skill and negligence in the treatment of the dislocated shoulder of the plaintiff. To support the first count the plaintiff asserted at the trial that the defendant had never set the arm, and had

not placed it in a sling. The first statement was entirely negatived by his admission that during Mr. Wilson's attendance he could bring the elbow to the side, and the judge ruled that neither statement of the plaintiff was to be received. "He directed the jury in favour of the dislocation having been reduced, and the arm placed in a sling." The question was therefore narrowed to the count of negligence, and it was on this ground that the jury found for the plaintiff, with £50 damages. They considered that the defendant had omitted to examine the arm on March 31.

Now we have the clear evidence of the defendant that on this day, the last on which he saw the plaintiff, he satisfied himself by moving the arm that the head of the humerus was *in situ*. It was proved by the evidence of Mr. Adams and the other professional witnesses at the trial "that there was no necessity to take off the coat, but that a Surgeon could judge by the external appearance of the limb whether it was or was not in proper position;" yet because Mr. Wilson did not remove the coat he is condemned to pay damages, and saddled with all the costs of the action. It would, therefore, appear that a Surgeon in such a case must not act on his own judgment, but must do exactly as a patient thinks fit to prescribe, on pain of a law-suit and a heavy fine.

The jury, although returning this cruelly harsh verdict, expressed a wish to append a qualifying clause. In this they were stopped by an officer of the Court. The circumstance, however, led to a conversation on the following day between Mr. Huddlestone, the defendant's counsel, and Mr. Justice Shee, which, in justice to Mr. Wilson, we publish entire from the shorthand writer's notes:—

"Mr. Huddlestone: Will your Lordship allow me to mention the case of Smithyman *v.* Wilson, which was tried yesterday? I understand that after the jury had delivered their verdict they wished to add something, but were very properly told by the officer of the Court that they had better not do so. Mr. Wilson, however, is naturally very desirous to know what it was that the jury wished to add, and if that could be ascertained it would be very satisfactory to him.

"Mr. Justice Shee: There would be a difficulty in ascertaining it now, but I think it may be assumed that the jury did not intend to cast the least reflection on Mr. Wilson's Professional skill.

"Mr. Huddlestone: I am much obliged to your Lordship.

"Mr. Justice Shee: I think it was abundantly clear that the shoulder was properly and skilfully set in the first instance, and, judging from the fact of £50 having been given by the jury as the measure of damages, I think it may be assumed that they gave that sum under the impression that although there was no want of skill, and the shoulder had been in the first instance properly set, there might have been possibly some little inattention subsequently.

"Mr. Huddlestone: I am very much obliged to your Lordship for that intimation, which I am sure will be satisfactory to Mr. Wilson.

"Mr. Justice Shee: There was clearly upon the evidence no want of professional skill, and that I think the jury may be taken to have found."

The Court, therefore, acknowledges that Mr. Wilson's error, if error it be, is of the most trivial description—"some little inattention." For this he has to pay £50 and costs, which probably amount to four times that sum. We may well ask, If this is law or justice, who would be a Surgeon?

One word more. We cannot but express our regret that Mr. Harding, a Surgeon of the same town, living within a very short distance of Mr. Wilson, should not have communicated with him on Smithyman's case. A conversation between the two Surgeons might have convinced Mr. Harding that the arm had become again dislocated since the patient was under Mr. Wilson's care. It would, at least, have been only a Professional courtesy due to a brother Practitioner to have consulted with Mr. Wilson in the case, and, for aught we know, it might have prevented this undeserved and cruel action.

THE ARMY MEDICAL SERVICE AND THE DIRECTOR-GENERAL.

The cause of the Army Medical Department is committed into the hands of the present Director-General, and by him obsequiously laid at the feet of his lord, master, and patron, the Duke of Cambridge, there to await his tender mercies. Dr. Gibson may now proceed with a light heart to Pau, or anywhere else. The list of eighty or ninety candidates at the last examination will lie upon his chest like the agreeable weight of a light supper, and excite him to pleasant dreams. His nightmare may take the form of that gigantic K which is said to be the object of his ambition. Sir Charles Wood is to be raised to the peerage as a reward for his heavy-headedness and constancy at the shrine of official routine. If the pursuit of a dull, monotonous level leads to such results in the one case, then why may not the eminent services of a lesser man, fighting under such an incubus as rests on the shoulders of Dr. Gibson, lead to the possession of a K? Never did a man deserve the reward he covets more than the present aspirant. If many doubt his capacity, none will gainsay his constancy; some may cavil at his want of Professional sympathy with his subordinates, none can deny his pertinacious homage to his Horse-Guards superiors.

He may, like the worshippers of Baal, have cut himself with articles of the *Lancet* kind; but he has done so in vain. Having ostracised himself from his Professional brothers, and managed to attain an isolation which is almost illustrious, he has, nevertheless, succeeded in relieving himself of his immediate and pressing difficulties, and now he can sing a pæan of triumph in the ears of the Duke, and tune all kinds of music to Horse Guards' time and key; or he can retreat to a lonely watering-place secure from his persecutors—the *Morning Post* and the weekly journals. What is upon every one's lips must have sometimes dawned upon his mind. But, then, why should he resign? Why should he sacrifice his private and personal interests, the easy chair in Whitehall-yard, the approving nod of military nobs, and the smiles of K.C.B.'s? It surely was not his fault that his administrative and Professional capacities attracted the notice of a Royal Duke, no more than it is his fault that the said Royal Personage should now refuse to listen to his warning voice? Why should he turn on the chief to whom he owes everything? His Professional brethren are most unreasonable in not considering these things, and asinine Medical officers need not persist in wondering what his predecessor, Mr. Alexander, would have done. High-minded, public-spirited self sacrifice for a cause—particularly a Doctors' as opposed to a Horse Guards' cause—these are all words, mere words, signifying nothing. The treatment of our Profession by the Horse Guards authorities is characterised by a kind of anility which is ridiculous. Our position in the public services would lead to the conclusion that the Profession of Surgery had never progressed since the days of Agincourt. When the combatant officer has to depend upon the Veterinary Surgeon for lack of other Professional aid, then, and not till then, will the eyes of the authorities be opened to the true state of things. It is quite clear that the Profession has nothing to expect from the Director-General's advocacy of their interests. Who shall say whether he be powerless in reality, or in appearance only? Can any one doubt his Professional superiority, his scientific attainments, his conspicuous administrative talents, or illustrious services in the field?

We hear a great deal about the maintenance of discipline being incompatible with the concessions required by Army Medical officers. That is all moonshine. When a disagreeable duty has to be done, a Medical officer is vested with sufficient command to do it. His position is in the civil list when his allowances or status are the questions, but he is military enough to command at the branding of a soldier; so that his position is made to vary according as the nature of the duty is agreeable or disagreeable. The authorities know well enough that no Medical officer wants military command.

No one but an imbecile would think of such a thing; but this assumption on the part of the Horse Guards affords them a fictitious sort of defence, which conceals the barrenness and untenability of their position. If the Horse Guards authorities desire to remodel the department in a wholesale way, let them do so by all means. They can scarcely succeed in making the public services more unpopular than at present, and they may succeed in attaining a logical position, at any rate. It is only because every Medical officer feels his present position a sham, that he desires to have it fixed again, and once for all. The rising generation care very little for spurs and scarlet, or such appendages as relative rank, when these give so little. If the authorities are bent upon placing the members of the Medical department on the same footing as the Chaplain's department, for instance, let them at once declare it.

What Lord Cardigan said years ago, in answer to the inquiry as to whether some improvement would not bring a better class of Medical men into the services, appears to be the opinion of all those now in authority. His Lordship remarked that the Medical officers might not be very first-class men, but they did very well, and the service did not want good men. A third class, or a twenty-third class, it is all the same to the Duke of Cambridge and the Director-General. It is tolerably well known that Dr. Gibson finds the candidates of inferior quality most amenable to discipline, and most contented with the prospects held out in the public services.

We will say nothing at all about the questions which have been, and now are, agitating the Medical Department; but we would venture to propound a simple arithmetical calculation for the gentlemen who have just been enrolled therein:—With some 600 Assistant-Surgeons, at the least, above them, and the present rate of promotion at fifteen per annum, when do these gentlemen hope to attain the rank and be entrusted with the responsibilities of a Surgeon?

THE WEEK.

MEDICAL CERTIFICATES.

On Tuesday, August 11, a man was brought before Mr. Ingham, the Police Magistrate of Hammersmith, on a charge of obtaining £20 from the Secretary of the South-Western Railway Company, by falsely representing that he had received injuries whilst a passenger on their line. The details of the case are of no interest, and we only call attention to it for the purpose of noticing the innocent, unsuspecting temper in which the Doctor's certificate is sometimes granted. We know how our brethren are pestered by applications for certificates and testimonials of all kinds, and how great is the temptation to get rid of a troublesome applicant by writing half-a-dozen lines, to which we persuade ourselves no one will attach more value than the author. We hope, however, that the speculative part of the public will not draw the conclusion that Mr. Hunt's practice of regulating the strength of a certificate by which compensation is to be assigned according to the strength of the complainant's assertions, is the one commonly in vogue amongst the Medical Profession, or we may expect to be inundated with cases of "internally injured" travellers.

Mr. Alfred Hunt, a Surgeon, of Hammersmith, said he examined the prisoner on the 18th of June, the day after the accident. He was suffering from bruises on the shins, and had wounds on the left eyebrow and left side of the nose. It seemed as if they had been cut by some sharp instrument.

Mr. Ingham: Such as a hatchet or a woman's nail.

Witness: They were deeper than would be caused by a woman's nail. I did not probe them. There was a green discolouration of the skin on both shins, and a slight swelling. I did not apply any treatment, but told him to keep quiet.

Mr. Ingham: Did you see him again on the subject?—Witness: Yes, I did about two days afterwards. He complained of great pain in the back. I examined his back, and on pressing the part he seemed to have a great deal of pain.

Mr. Ingham: How did he show it?—Witness: He flinched when I touched him. There was no external mark.

Mr. Ingham: Suppose a man gets a cut or an injury on the shin, how long does it take to become green?—Witness: I should say about three days.

Mr. Ingham: So I thought. (To Mr. Andrew, the clerk.) Take that down. (To Mr. Hunt.) Anything else?

Mr. Hunt: The reason I wrote the certificate in such strong terms was because he said he was injured so much internally.

Mr. Ingham read the certificate, which referred to a contusion in the back. It also referred to a severe bruise on each leg.—Witness: He complained of both legs.

Mr. Ingham: The certificate states that there was an incised wound over the right eyebrow. (To Mr. Hunt.) You believe it was the left eyebrow. Then, you pledge your professional skill as to the truth of what a patient might say?—Witness: I must rely a little on what a patient tells me.

Mr. Ingham: Of course, if a man is shamming illness, he will flinch when you attempt to touch him. I should advise you to be a little more cautious another time.

LUNACY IN BAVARIA.

Continuing his Medico-statistical researches in Bavaria, Dr. Major follows up his account of the blind and deaf in that kingdom (*Medical Times and Gazette*, July 23) with one concerning the insane. 1. The entire number of lunatics amounts, it seems, to 4899, that is 10·78 for every 10,000 inhabitants, or 1 for every 942. Of this number 3537, or 72 per cent., are under private care (or no care at all in many cases), and 1362, or 28 per cent., in public establishments. Compared with other countries, as stated by Wappæus, the numbers stand thus:—Bavaria, 11 per 10,000 inhabitants; Saxony, 26; Hanover, 17; Wurtemburg, 13; France (in 1851), 13; Belgium, 10; Britain (1847), 9; Ireland (1851), 15; Denmark, 28; the German Duchies, 25; Sweden, 10; Norway, 34; Iceland, 26; the United States (1850), 15. The total of insane in all these countries is put down at 136,415 in a population of 103,454,583, giving an average of 13 insane per 10,000, or 1 in 758 inhabitants. (This statement is, however, far too loose for any sound statistical comparison.) 2. Of the whole number of insane, 2576, or 52·6 per cent., were males, and 2323, or 47·4 per cent., were females. There were 11·32 male and 9·93 female lunatics in every 10,000 inhabitants, the males exceeding the females in proportion to the respective sexes of the whole population by $\frac{1}{7}$. 3. Above 80 per cent. of the whole number of lunatics were between 20 and 60 years of age, above 10 per cent. were under 20, and above 8 per cent. were above 60. 4. The Catholics among the lunatics amounted to 71 per cent., the Protestants to 26, and the Jews to 2 per cent.; but compared with the religious persuasions of the entire population the Catholics furnished 1 insane for every 916 inhabitants, the Protestants 1 in every 977, and the Jews 1 in every 549. 5. There were 83 per cent. single and 17 per cent. married or widowed. There were thus about five times as many single as married lunatics. As in the general population the single persons are 65 per cent. and the married or widowed 34 per cent., it follows that among the lunatics, as compared with the general population, the number of married or widowed persons is only half as great. 6. Of 4874 lunatics in which the form of insanity has been specified, this is returned as mania (*tobsucht*) in 6 per cent., melancholia (*schwermuth*) in 19 per cent., delirious monomania (*wahnsinn*) in 18 per cent., and fatuity, imbecility, and idiocy (*verrucktheit, blodsinn*) in 62 per cent. 7. It is stated that in 78 per cent. the insanity was not hereditary, and that in 14 cent. it was directly and in 8 per cent. indirectly hereditary. In 552 of the 4899 lunatics no indication under this head was afforded.

Salmon in Australia.—Our great salmon-hatching experiment, both in Tasmania and in Melbourne, has been hitherto remarkably successful. Many thousands of minute salmon are now alive and active in that interesting stage in which they are called parr. Whether they will ever get above par—excuse the involuntary pun—time alone can show. Naturalists here are divided on the subject.—*Times' Melbourne Correspondent*, August 16.

THE THIRTY-SECOND MEETING

OF THE

BRITISH MEDICAL ASSOCIATION,

HELD AT CAMBRIDGE ON WEDNESDAY, THURSDAY, AND FRIDAY, THE 3RD, 4TH, AND 5TH OF AUGUST.

DR. PAGET, PRESIDENT.

(Concluded from page 183.)

ABSTRACTS OF SCIENTIFIC PAPERS.

JOHN BRIDGER, ESQ., COTTENHAM.

ON DIPHTHERIA.

Mr. Bridger said, "Since April, 1862, upwards of 3000 cases of diphtheria have fallen under my care. At the onset of the epidemic the disease was of a more acute character than at the present time, cases then presenting the characteristic appearances so well known to the Profession, and so ably described in a lecture by Dr. W. H. Ranking, delivered at the Norwich Hospital—*vide Lancet*, January 8, 1859.

"Latterly most of the cases have been of a milder character, very many of them relapses. The sequelæ are often very serious, such as pleurisy, pleuropneumonia, endocarditis, peritonitis, croup, paralysis, etc., etc.; in one case there was abscess of the liver, in one gangrene of the lung; some have passed membrane from the bowel, one from the bladder. Erysipelas has very frequently followed, sometimes commencing at the nostrils, and spreading over the face and head, sometimes from one or both ears, and spreading over the head and face, in a few cases from the anus, umbilicus, penis, or vagina, and extending slowly over the whole body and lower extremities; in the three last-mentioned points of commencement it has occurred in infants that took the disease from their mothers, and showed it either at birth or within a few days. Women who have the disease previous to or during pregnancy have their condition modified by it; in some it produces abortion, in some premature confinement, in others hæmorrhage or lingering labour; whilst in all puerperal women, for a period of from three to six weeks after delivery, and occurring every few days, there is a discharge of shreddy membranous or glairy matter, like uncoagulated white of egg; this has occurred in fifty-two cases, my attention being generally called to it by the patient or nurse as something unusual.

"The children born of these affected parents invariably show signs of the disease soon after birth; if you look into their throats you see the tonsils, uvula, and soft palate swollen and red, perhaps slightly œdematous, producing a slight hoarseness and cough; this may go on for some days, or even weeks, the child, seeming neither well nor ill, all at once is taken worse, screams out with pain, and dies in a few minutes. Whenever I have been able to examine the body I find death caused by effusion into the pericardium. Altogether, out of this number of cases, there have been seventy-five deaths. Twelve were complicated with scarlet fever, nine were complicated with measles, one with confinement and scarlet fever, one with confinement alone. A primipara, a young woman aged 21 years, gave birth to an acephalous child, and was doing well up to the twelfth day, when she complained of her throat, the tonsils, soft palate, and uvula looking red only. In about twenty-four hours she complained of a kicking sensation in the throat, screamed out, and died. No post-mortem was allowed.

"I have made twenty-four post-mortem examinations, and wish particularly to bring before the notice of the members of this Association a certain condition of the auriculo-ventricular valves of the heart seen in every case where a post-mortem was allowed, whether complicated with any other disease or not, and to the best of my belief not previously made known to the Profession. It is a roughened, reddened, and thickened appearance of the valve, as if by interstitial deposit, situated midway between its insertion around the ventricular opening and the attachment of the chordeæ tendineæ, one or both valves being affected more or less, according to the severity of the case and the time elapsing between the symptoms of heart affection and death. The symptoms denoting it may come on early or late, generally late, several cases having occurred where to all appearances the patient has been well, and may be diagnosed by the following symptoms:—An anxious countenance, hurried respiration, a rapid pulse (from 120 to 170), tenderness over the precordial region, scarcely any pain excepting on pressure. In four cases I noticed a slight murmur, systolic; in two it subsided in a week; one remained permanent for some months; one case is now under treatment, and at this present time there is a distinct bruit heard at the base over the valves, and along the course of the aorta. The duration of the urgent symptoms varies from three to seven days, the shortest being three, the longest seven days.

"I have not noted the exact number of cases in which the heart has been so affected, but can safely say it occurred in at least a hundred; in some it came on most severely, and was like a state of collapse, with cold clammy perspirations.

"In this endocardial affection I give the steel mixture with nitrate of potass every two, three, or four hours, a small dose of grey powder, with compound ipecacuhana every night, and apply a sinapism twice daily until the pain and tenderness on pressure subside. In the cases with a bruit, and also accompanied by pain, gr. iij. of the extract of conium is given every four or six hours as long as required.

"In all cases where membrane extended down into the trachea and lesser bronchi death followed rapidly. In those cases simulating spasmodic croup, with patches of membrane on the tonsils only, five have died, three recovered. One patient, a lad, aged 14 years, died suddenly in getting from the bed to the night-stool, apparently from paralysis of the heart, as he was previously doing well and getting about the house; his mother had given him a dose of castor oil contrary to my wishes.

"In respect to the treatment generally pursued, I rely principally on the tincture of sesquichloride of iron, but combine with it the acetate of ammonia and spirits of nitrous ether in order to keep the skin and kidneys active. When there are glandular enlargements, I add to these the iodide of potassium; and should there be also an œdematous condition together with glandular enlargements, both the iodide of potassium and the chlorate of potass. If the tongue be much loaded, and the patient feel at all sick, I generally give a stimulating emetic of equal parts of sulphate of zinc and ipecacuhana; throughout the active stage of the disease an alterative dose of calomel or grey powder combined with the compound ipecacuhana is given every night at bed time. I apply emollients or stimulating fomentations to the throat externally, and direct the patient to gargle with warm water or weak vinegar and water frequently, unless there be very much fœtor. I then substitute a weak solution of chlorinated soda. The forcible removal of membrane and the application of acids or caustics I think quite useless; in fact, I believe they are injurious, producing shock and afterwards greater depression. Perfect rest and quiet are necessary; beef tea and stimulants, either brandy or wine, as best suited to the case. When indications of approaching paralysis show themselves, I add to the steel mixture small doses of strychnine, thus, I believe, in very many cases obtaining a more rapid convalescence than can be obtained by any other tonic, such as quinine, bark, and the mineral acids, all of which I have tried. Acids I find are not generally tolerated. In some special cases where you have a large amount of semi-fluid fœtid discharge from the mouth and nostrils, the solution of chlorine (made by adding dilute hydrochloric acid to chlorate of potass) combined with the steel, and given every two or three hours, I have found to act almost magically in checking this discharge and producing rapid convalescence. In fact, I find generally that the chlorate of potass with steel to young children is not only the pleasantest, but the best remedy, bringing back the colour to the lips and cheeks sooner than anything else. In cases of croup I give calomel gr.j., ipecac. gr.ij., as a mild emetic every two, three, or four hours, and during the intervals the steel mixture with nitrate of potass and small doses of chloroform, applying externally to the throat and chest fomentations of hot mustard and water, dis-

continuing the calomel and ipecac. as soon as the urgent symptoms pass off, but continuing the steel mixture. Dr. Paget saw several cases, and amongst them one of these croupal cases. After death I sent the larynx and heart for his inspection.

"Change of air I have found absolutely necessary in some cases; it is beneficial in all. Being situated on the border of the Fens, our atmosphere is of a very depressing character, and those persons who come from a higher elevation and more bracing atmosphere to reside in this neighbourhood generally take the disease.

"On several occasions when there has been a batch of fresh cases those already ill have been taken worse on a particular day and hour and in a particular direction, as if the disease were caused by a wave passing over in this direction from village to village.

"I do not pretend to know or assign the causes or origin of this disease, but I believe with many others that it is a disease affecting the whole system through the medium of the circulation, and always producing affections of an asthenic character; and that when it attacks persons of a tubercular diathesis, if not immediately fatal, it lights up the tubercular disease and hurries rapidly on to a fatal termination cases that probably might otherwise have lived for years."

W. BUDD, M.D., CLIFTON.

MEMORANDUM ON A SCHEME FOR THE INVESTIGATION OF EPIDEMIC AND EPIZOOTIC DISEASES, DRAWN UP AT THE REQUEST OF A COMMITTEE APPOINTED FOR THAT OBJECT AT THE ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION IN AUGUST, 1862.

Dr. Budd proposed an investigation of the following questions:—

1. *The nature of the evidence showing the disease that may be the subject of inquiry to be contagious or communicable.*

2. *Whether such disease admits of being artificially propagated by inoculation or otherwise; and if by inoculation, what are the morbid products which are capable of conveying the virus.*

3. *Through what surface or surfaces the virus may be shown to enter the body and to leave it.*

4. *Whether the disease is distinguished by eruptions, external or internal, or by ejecta more or less characteristic.*

5. *At what periods of the disease, if ascertainable, the power to propagate by contagion begins and ceases.*

6. *Through what media the specific poison passes from the infected to the non-infected; whether it be transmissible by fornites, by mediate intercourse, or is carried by flies or birds.*(a)

7. *Whether the poison is cast off in a form in which a considerable portion of it is likely to pass into the dried state, and if so, whether there are any facts tending to show how long, when in this state, it may retain its noxious powers.*

8. *Whether the individual disease under inquiry has a period of true incubation, and if so, what are its length and limits.*

9. *Whether one attack, as in small-pox and many others, preserves against future attacks.*

10. *Whether, in the case of human disease, animals as well as man are susceptible, and if so, what animals; or in the case of animal diseases, whether more than one species, and if so, what species.*

11. *What the evidence, if any, as to the particular country or region in which the disease first appeared.*

12. *What its present geographical limits.*

13. *Whether there is any evidence, and if so what evidence, of its modern or recent introduction into and establishment in countries previously exempt.*

14. *How far any such disease may have been prevented from invading new countries, or from spreading from any particular centre, by measures directed against contagion.*

15. *Whether it is capable of assuming different types, so as to cause maladies which, although diverse in outward guise, are only the same disease in different forms.*

16. *What the evidence* supposed *to show that the specific poison of a contagious disease may originate spontaneously or be generated "de novo."*

17. *And lastly, as of secondary and minor importance, data tending to show in what manner the action of each specific poison is affected by conditions relating (a) to the individual, such, for instance, as age, sex, state of health, etc., etc.; (b) by conditions relating to the poison, such as greater or less malignity of the case from which derived, greater or less concentration, etc., etc.; and (c) by conditions independent of the individual and of the poison, but acting on both, such as climate, weather, soil, drought, and rainfall, etc., etc.*

In the determination of conditions of this order statistics find their true province. What we most want to know in regard to this whole group of diseases is, where and how the specific poisons which are their cause breed and multiply. In small-pox we have ocular proof that the poison breeds in the living body, and it may be assumed as certain that the same is the case with the other diseases of this family which agree with small-pox in certain leading characteristics. This being so, the question arises—granting that these poisons do breed in the living body—whether they may not also be generated elsewhere?

Questions 8, 9, 10, 11, 13, 14, and, in a less degree, number 12 also, are clearly of the greatest significance in their bearing on the answer to be given to this question.

Some parts of the general inquiry might advantageously be made the subject of a separate and independent report. Such is especially the case, for instance, with the question just referred to, as to whether, namely, the poisons of specific contagious diseases ever originate spontaneously.

"After giving many years of time and thought to an examination of the evidence bearing on this question, I have," said Dr. Budd, "myself come to the conclusion that there is no proof whatever that they ever do so. That the evidence, in fact, on which the contrary conclusion is founded is negative only; that evidence of precisely the same order—only to all appearance still more cogent—would prove animals and plants, even of large species, to originate spontaneously; that this evidence is, therefore, of no weight; and lastly, that, as in the case of plants and animals, all the really important facts point the other way, and tend to prove that these poisons, to use a word that is probably provisional only, like animals and plants, however they may have once originated, are only propagated now by the law of continuous succession. Opinions like these are no doubt at present those of a small minority.

"A very large, and by far the most influential, school in this country,—a school which probably embraces the great majority of Medical Practitioners, and the whole of the 'sanitary' public—holds the exact contrary, and teaches that sundry of these poisons are constantly being generated *de novo* by the material conditions which surround us.

"In regard to the great work of prevention, it is obviously of the first importance to determine with which of these two parties the truth really lies; for so long as opinion remains divided as to this cardinal point, it is vain to hope for the general adoption of any definite scheme of preventive measures. A report on the subject by a really competent hand might do much towards settling public opinion in regard to it.

"Certain other points would admit of being studied experimentally. I would cite, as an example, the influence of heat on contagious poisons. Rather more than twenty years ago the late Dr. Henry showed, by a series of decisive experiments, that the powers of the small-pox poison are destroyed by a temperature of 212° Fahr. These experiments have since been repeated and extended by a Committee at York, who have published a very valuable report on the subject.

"As regards the whole subject of the investigation of contagious epidemics, perhaps the best course would be not to deal with it collectively, but to report at first, in reference to the several heads enumerated above, and any others that might appear important, on one or two typical members of the class.

"If I might venture to make a suggestion, it would be that the following diseases should be thus dealt with in the first instance:—

"1. Typhoid or intestinal fever.
"2. Maculated typhus.
"3. The Rinderpest, or cattle plague.
"4. The Foot and mouth diseases of oxen and other animals.
"5. The Pleuro-pneumonia of cattle.
"6. The Variola ovina, or small-pox of sheep.

"It is not without design that in this list the epizootics are made to out-number the diseases of man. The reason is, that, in regard to everything which concerns the genesis and reproduction of specific contagions, it is much easier to obtain sure and precise data in the case of animals than in that of man.

"In a paper on malignant pustule which I read at our last annual meeting (1862), I pointed out some of the many advantages which these diseases offer to the inquirer, and

(a) In the recent epidemic of variola ovina in Wilts, *starlings* are supposed by Professor Simmonds to have had a principal hand in propagating the disorder.

from which we are, for the most part, often debarred in our own case.

"These advantages are illustrated in a very striking way by the list of epizootics just suggested.

"Not the least among them is the fact that three out of four of these epizootics—if not all four—admit of being propagated by contagion, of being, therefore, studied experimentally.

"Two of them, the Rinderpest and the Variola ovina, have an interest of another kind, which is of the highest possible importance in relation to the general inquiry.

"The morbid changes which are characteristic of the cattle plague bear in every respect so close a resemblance to those of intestinal fever in man—and the eruption of the variola ovina is in its appearance and distribution so close a counterpart to that of human small-pox—that many observers of the first animal have been led in either case to consider the human disease and the animal disease to be identical.

"And yet, as far as present evidence goes, it appears, not only that this is not so, but that both these diseases present the remarkable and deeply significant characteristic—a characteristic which is observed, indeed, in many other members of the same family—of being absolutely peculiar to the species of animal in which they severally occur.

"Both also—agreeing in this with small-pox and with contagious fevers generally—are diseases which happen only once in life.

"So that the poison of the variola ovina, for instance, not only is incapable of breeding in the body of any other animal, but cannot even breed in the body of the sheep more than once.

"This singular ovine malady, and the pleuro-pneumonia of cattle, have, also, an extreme importance in relation to the general inquiry—as examples of diseases which have for the first time been introduced into this country, in our own day, in consequence of the removal of the restrictions which formerly almost entirely prevented the importation of live stock from those parts of Europe in which these diseases have immemorially prevailed.

"The importance of this fact is still further enhanced by the opposite fact that the rinderpest has hitherto been excluded not only from our own shores, but from countries actually conterminous with those in which this epizootic is most rife, by measures expressly founded on the idea that the disease spreads exclusively by contagion.

"Among human diseases, I have specified typhoid, or intestinal fever, and typhus, for several important reasons.

"1st. Because of the great intrinsic interest of both, and of the large annual mortality occasioned by them.

2nd. Because of the wide differences of opinion at present prevailing as to their origin and mode of spreading, and the very great importance, as regards prevention, that these differences should be reconciled or cancelled.

"And 3rd. Because there already exists, in regard to both—scattered abroad in books, written in many tongues—a far greater mass of precise data touching the points at issue than people, generally, are at all aware of, and which are fully ripe for generalisation.

"In order to render the inquiry on which the Association is about to enter really comprehensive, it would be necessary to conjoin with the study of epidemics that of the diseases caused in men and animals by living parasites, external and internal.

"A fuller knowledge of the phenomena attaching to the dissemination of the prolific and minute germs of these parasites could not fail to be of great use in helping to the true interpretation of the phenomena which attach to the strictly analogous dissemination of the equally prolific and equally minute germs of the contagious poisons. In particular, it would be of the highest value in showing what is the real worth of the negative evidence, now so implicitly relied on, as an indication of spontaneous origin, and as opposed to the law of propagation by continuous succession.

"Additional reasons for putting the parasitic and the contagious together in such an inquiry are—1st. That at many points the two blend insensibly one into the other; 2nd. That with the advance of knowledge diseases are constantly being transferred from the group of common contagious to the group of parasites; and 3rd. That there already exists among the most advanced thinkers on these topics, a shrewd suspicion that the two groups will eventually coalesce, and be found to be in their essence identical.

"The only other suggestion I would venture to offer to the Committee is that in the conduct of their inquiries it would be well to keep the great object of prevention constantly in view.

"And this, not only because prevention is the ultimate aim of all investigations of this sort, but because, in a degree far greater than is commonly supposed, preventive measures may be made a test of the truth of theory itself. What I mean here may be best illustrated by an example.

"The example I shall take is that of the rinderpest, or cattle plague. In Austria, Prussia, and other countries immediately conterminous with those in which that fatal pest is most destructive, a very stringent code of regulations for the prevention of the disease is enforced, which is founded, as before remarked, on the idea that this disease is propagated exclusively by contagion. Wherever these regulations have been thoroughly acted upon, there the progress of the pest has been stayed; wherever they have been neglected the disease has spread with fearful rapidity. The perfect success of the method is here a very good test of the truth of the theory."

ON RINDERPEST, OR CATTLE PLAGUE.

On this subject Dr. Budd made a few verbal, but important, remarks, and presented some beautiful drawings showing the characteristic alterations on the follicles of the intestines. He indicated that these resembled the ulcerated spots of typhoid in the human subject.

HENRY DICK, M.D.

A NEW INSTRUMENT FOR THE TREATMENT OF SPINAL CURVATURE.

In constructing the instrument exhibited to the Association Dr. H. Dick had two essential points in view—namely, first the pathological anatomy of lateral curvature of the spine, and secondly, the adaptation of the mechanical action of the instrument to the exigencies of the deranged conditions. Deformity of the spine, whether to the right or the left, is generally (improperly) called lateral curvature of the spine.

Real lateral curvature of the spine is only found directly after pleurisy with exudation or after abscesses in the costal region. It is generally produced by post-inflammatory contraction and position during the pleurisy.

All other cases of lateral curvature of the spine are more or less combined with rotation or twisting of the spinal column itself. This twisting has been found by Dr. Dick in a good number of post-mortem examinations to exist even in the very early stages of lateral curvature.

After much observation and numerous experiments, Dr. Dick has arrived at the conclusion that the twisting is purely the mechanical consequence occasioned in the deviated or curved spine by bending it forwards. The spine in some respects resembles a strong elastic stick or column, which if pressed at both extremities more strongly than it can bear, forms a bow, and in that condition will not bend backwards or forwards, but will rotate at the central points of the bow.

If a strict examination is made into the pathological anatomy of spinal curvature, the same rule above mentioned holds good.

Rotation is found generally in the dorsal region, less frequently in the abdominal; the case of Dr. Mantel (see Mr. W. Adams' report on it) is a very good illustration of the latter.

The misplacements of the scapula, ribs, etc., are in a great measure the results of that rotation just alluded to. The flat position of the spinous processes and other morbid changes are all ascribable as natural results of that abnormal twisting or rotation of the spine.

An ingenious contrivance, which was exhibited to the Society, practically demonstrated the mode of producing that rotation, which, according to mechanical law, occurs in the deformed spine.

After considering these facts, it will be obvious, said the author, that, in order successfully to treat lateral curvature of the spine, means must be adopted to prevent or counteract that rotation alluded to.

This is best effected by making a strong pressure with a small oblong plate over the transverse spinous processes on the convex side of the curved spine. The action of the plate must be sidewards and forwards.

In constructing a useful instrument, it will be found necessary to use two points, on which the extremities of the instrument must be firmly fixed—one by the old pelvis belt, and the other what Dr. Dick calls the clavicular belt.

Pressure is made as nearly as possible to the spine on its convex side. No pressure is made on the ribs except by a web-belt, moved by a lever in front of the pelvis-belt. The instrument has the usual two crutches. There is besides a contrivance to act upon the upper part of the spine, to prevent

stooping and to operate in bending backwards the upper part of the spine.

Dr. Dick could not refrain to mention that he was much obliged to the mechanical skill of Mr. G. Ernst, which was of great use to him in constructing the instrument.

The definition of the cause of rotation of the spine, as given by Dr. Dick, excited much interest, and it is, in fact, one of the most philosophical and beautiful deductions we ever remember to have seen. The instrument placed before the Association for the treatment of spinal curvature is equally excellent in principle.

T. HILLIER, M.D., LONDON.

ON DIPHTHERIA.

The object of the paper was to refer to the experience of diphtheria obtained at the Hospital for Sick Children in London during the past seven years.

The author stated that although not commonly recognised in England, it was the opinion of many eminent Physicians that cases of this disease had at intervals come under their notice ever since they had been in practice, but had not been understood. He gave the statistics of diphtheria as it had been met with in the Hospital. He mentioned that it had occurred as a primary disease, or as secondary to measles, scarlatina, Bright's disease, or Surgical operations. The secondary cases were more fatal than the primary.

The larynx was involved in twenty-four of thirty-four cases; the symptoms of laryngeal complication made their appearance in eleven cases on the first day, and in all, except two, within the first week from the appearance of other symptoms. In one case the larynx was first involved on the nineteenth day. Albuminuria was observed in nearly all the severe cases; of twenty-four cases in which the urine was frequently examined, it was present in nineteen and absent in five. It made its appearance never earlier than the fourth day; once on that day, twice on the fifth day, once on the sixth day, once on the seventh day, five times on the ninth day, once on the thirteenth day, and once as late as the nineteenth day. At the same time that albumen was present in the urine the amount of that secretion became more and more scanty, until it was sometimes almost suppressed. The presence of albuminuria and scanty secretion of urine was stated to be a more common occurrence in diphtheria than in scarlatina. Dropsy was not once observed. A tendency to somnolence was frequent, convulsions rare. *Post-mortem facts:* False membranes, more or less tenacious, were either found on the fauces, tonsils, pharynx, epiglottis, larynx, trachea, or bronchi, or on all these parts at once. In seven cases ulceration of the mucous membrane was present, and in nearly all the epithelium appeared to be the seat of the exudation. The kidneys exhibited to the naked eye increased opacity of the cortex, and in some cases undue injection. Microscopically, there was distension of the tubuli with epithelial cells, which were too granular in aspect, and separated too easily; in some cases there was granular deposit between the Malpighian capsules and the glomeruli. The changes indicated incipient nephritis, very similar to what is found after scarlatina. In three cases which lingered nearly three weeks distinct fatty degeneration of the heart was found; these cases all died of asthenia, the throats being nearly or quite well.

The author had been struck with the very small number of cases in which paralysis or nervous symptoms had followed diphtheria in the Hospital; these signs had occurred in not more than three cases altogether, and these not of a severe or general kind.

He was inclined to think that these symptoms were more common amongst adults than children, and amongst those in easy circumstances than the poor. In private practice he had twice seen paraplegia, once partial amaurosis, and once paralysis of the soft palate; in three of his Medical friends paralytic symptoms had been observed. The cause of the paralysis was not obvious, it was not due to albuminous urine nor to obstructed respiration, but it was an evidence of the general nature of the disease. Dr. Hillier suggested its depending on a deficient nutrition of the nerves rather than being of a reflex nature.

As to the pathological affinities of diphtheria, he was of opinion that the disease was totally different from scarlatina, but that it was impossible to distinguish it from croup as it has occurred in London during the past seven years.

Croup appeared to him to be laryngeal diphtheria, and diphtheria to be epidemic croup. Most of the cases formerly described as croup would now be called diphtheria, and cases of croup are now frequently met with in which there is high fever and laryngeal obstruction from the rapid exudation of false membrane, which are called diphtheria because there is albuminous urine and convalescence, or death attended with much asthenia. Croup of twenty years ago was often accompanied with exudation on the tonsils or soft palate, and diphtheria of the present day often begins in the larynx, and the fauces were subsequently involved or entirely escaped. Albuminuria was not detected in diphtheria until lately, and since that time it has been found both in croup and diphtheria. The peculiar nervous phenomena that occasionally follow diphtheria have not been so frequent as to excite any surprise even should they as frequently have followed croup that the connexion between the primary and secondary symptoms was overlooked; or it may have been that the disease when sporadic and less virulent was not followed by these phenomena. The most powerful argument for distinction between croup and diphtheria was that diphtheria is contagious and croup has never been so regarded.

In regard to treatment the author stated that no specific had been discovered. The indications were to combat the tendencies to death. Diphtheria either killed by asphyxia from mechanical obstruction to the entry of air into the lungs, or by asthenia from the depressing influence of the general disease, or from uræmia, or from cardiac failure. To counteract the first mode of death calomel in small doses frequently repeated was advocated in diphtheria as in croup, when the previous health of the patient was good and the general symptoms were not very asthenic. Chlorate of potash was also found useful. No marked benefit had been observed from the use of ice, and but little from the perchloride of iron. If calomel was not given, simple salines, with or without iodide of potassium, were recommended. A nutritious diet and wine, according to the state of the pulse, to be administered. To counteract the depressing effect of the general disease, carbonate of ammonia, cinchona, and stimulants were indicated. A too lavish use of alcohol appeared to favour renal complication.

Tracheotomy had been resorted to in a large number of cases, and was recommended as affording a prospect of cure, and, though often failing to cure, yet being usually followed by great relief and a more easy death. In three cases at the Hospital recovery had followed tracheotomy, which had been adopted at a time when there was from other treatment no hope of recovery. Five other cases were reported of children in whom the operation had been successful, and of two adults. The importance of not neglecting general treatment after the operation had been performed was insisted on. Four cases were referred to in which it had been impossible to dispense with the canula for several months after the operation: in one the larynx was permanently occluded by the cicatrisation of ulcerated surfaces; in another there were ulcers in the larynx; in the other two the tube had been ultimately withdrawn and the fistula had healed.

Laryngotomy was recommended in the adult, and tracheotomy in the child. It was useless to have recourse to the operation unless the constant attendance of experienced, or at any rate clever, nurses could be secured to carry out the after treatment. The tube recommended was a double one, the outer portion being bivalve and the inner having its convex aspect looking upwards.

To counteract the tendency to ischuria renalis, diluents should be freely given, but in these cases the treatment was often useless from the occurrence of obstinate vomiting, which was always regarded as a grave symptom.

SAMUEL MARTYN, M.D, CLIFTON,

ON THE PHYSIOLOGICAL MEANING OF INFRA-MAMMARY PAIN.

After remarking that this was one of the most frequent, intractable, and mysterious nervous affections with which we have to do, the author proceeded to define it as follows:—Pain, very common, either continuous or intermitting irregularly, and brought on by movement. Sex—more frequent in women (as 20 : 5). Locality—superficial, in the 6th, 7th, and 8th intercostal spaces; the spots infra-mammary, less frequently spinal or sternal. Side affected—mostly the left, sometimes both. The patients were of the nervous temperament, and the duration of the disease was often till death from some other affection.

Dr. Martyn then indicated the diagnosis from various other affections, and characterised the disease as a true intercostal neuralgia, but maintained that hitherto no satisfactory cause had been assigned for the pain. A summary was then

given of a long discussion in the year 1858, and the various theories of Henle, Inman, and the late Dr. Charles Coote were shown to be untenable. Dr. Fuller had given an admirable description of an attack experienced in his own person, adding, that he could never account for this pain attacking the left inframammary region.

As a result of the observation of numerous cases, the author states his belief that there was always disordered action of the heart, as well as general muscular weakness, in cases of true inframammary pain. The pulse was too quick in exertion, too slow in repose. After alluding to instances of radiated impressions, he proceeded to show that the anatomical explanation is very probably to be found in the fact that the aorta, impinging on the left side of the third dorsal vertebra, receives, and conveys to the cardiac plexus, branches from the sympathetic ganglia opposite the fourth, fifth, and sixth vertebræ. As these ganglia have just received branches from the intercostal nerves, it was clear that the heart and the fourth, fifth, and sixth intercostal spaces received a nerve supply from the same part of the cord; and it was to be observed that the lateral cutaneous branches of the fourth, fifth, and sixth intercostals supply the spaces two ribs below, and in which the inframammary pain is chiefly felt. The great difficulty was to attach any great importance to these minute nerves, as opposed to the large cervical ones; but Dr. Martyn felt that a possible explanation of this point was to be found in some experiments of V. Bezold, in 1862, in which he had shown that the nerves affecting the heart's motion, in relation to sensation and psychical impressions, appeared to pass from the medulla oblongata down to the upper part of the dorsal spinal cord, before they emerged from it. Certain peculiarities in the course taken by the minute branches from the sympathetic, explained the occurrence of inframammary pain, unusually high up, even in the arm, or low down, or on the right side, whence the aorta did receive some few nerves. The author believed that there was reason, on anatomical, physiological, experimental, and pathological grounds, for adopting the theory that inframammary pain is a reflex neuralgia, expressive of some distress in the heart. The author's view of this cardiac distress was that it might express muscular fatigue, and often belong to the group of partial reflex paralyses; upon this theory he had treated many cases with good result. The first indication was to allay the pain; the second, to relieve the heart of its overwork; but the great point was to look for the permanent cause of irritation—as, for instance, gastric disorder, spinal irritation, irritation of the uterine organs, or a worried brain. This removed, the heart's action frequently became steady, and, *pari passu*, the inframammary pain disappeared.

C. B. RADCLIFFE, M.D. Lond.

A FEW WORDS CONCERNING BANTINGISM.

As every one knows, Mr. Banting was a stout man who became reduced to more seemly dimensions by the adoption of a particular code of diet. As every one also knows, "Bantingism," or the struggle to become thin by following Mr. Banting's example, is at present the fashion in many quarters. Is, then, this fashion to be encouraged, or is it to be discouraged? Dr. Radcliffe is of opinion that it ought to be discouraged, and the present "few words" are intended to show in brief why it ought to be.

Mr. Banting's rule is to take abundance of lean meat, claret, sherry, Madeira, and tea, and to abstain as much as possible from bread, butter, milk, sugar, beer, and potatoes—articles containing starch and saccharine matter—to abstain as much as possible from the articles upon which Mr. Banting had lived almost exclusively in the days when he was a victim to obesity. The diet in Bantingism, indeed, is essentially the same as that prescribed in training for the ring or for the boat race. The chief peculiarity in each case is to allow a large amount of lean meat, and if there be any difference it is that the Bantingist deals more liberally with himself in this respect than the athlete. What Mr. Banting allows himself is rather more than is eaten by the average-sized man in training. It may be expected, therefore, that the known results of the process of training may throw some light upon some of the consequences of Bantingism. It may be expected that Bantingism cannot be carried beyond a certain point with advantage. In training this is certainly the case, for after a certain time, longer or shorter as the case may be, after within four months at the longest, the person in training rapidly gets "out of condition." Nor is it otherwise with Bantingism; at any rate, Dr. Radcliffe says that he has met with several persons who, after trying Bantingism for a while with no disadvantage, have thus got "out of condition" in an unmistakable manner, some of them becoming very gouty, and all of them experiencing a decided failure in strength and spirits.

Dr. Radcliffe is disposed to look upon this loss of "condition" in these two cases of training and Bantingism as depending partly upon excess of nitrogenised food, and partly upon deficiency of fatty matter. The nitrogen of the food escapes in the main by the kidney as urea or uric acid, and if the kidney be not up to its work the system is apt to become gouty from the accumulation of these products in the blood. Hence it is not difficult to see how excess of nitrogenised food may, sooner or later, lead to ill-health, and that especially in the case in which a proper amount of exercise is neglected. Nor is it difficult to see how deficiency of fatty matter may tend to bring about the same result, if, as Dr. Radcliffe supposes, a certain quantity of fatty matter be necessary to the proper nourishment of nerve-tissue. It is not difficult to see that nerve-tissue, which contains a large quantity of fat, may be starved if the food do not contain a sufficient quantity of fat, and that this starving of the tissue may involve a corresponding want of nervous energy. At any rate, Dr. Radcliffe is disposed to look upon the diet in training and in Bantingism as calculated to nourish the muscles rather than the nerves, and he believes that this may be one reason why prize-fighters, like Heenan, have often been so seriously wanting in the power of sustained action, and why the followers of Mr. Banting have after a while begun to flag in the spirit which animated them at first.

In a word, Dr. Radcliffe considers that it is not safe to ignore the old standards of food so completely as is done in Bantingism. He thinks that milk and bread are still typical articles of food. He gave reasons for believing that the farinaceous, and saccharine, and oily articles of food are, in proper proportion, not to be dispensed with without risk, inasmuch as they are the most suitable fuel for keeping up the heat of the human body at the proper point; and he gave reasons also for doubting whether saccharine and farinaceous matters in excess have the same tendency to favour the formation of fat as oily matters in excess. He is of opinion that certain persons may incline to the type of vegetable feeders rather than to the type of animal feeders, and that these persons may find the nitrogenised part of their food better in the albumen, fibrine, and caseine of vegetables than in the albumen, fibrine, and caseine of animals.

B. W. RICHARDSON, M.A., M.D. LONDON.

NEW RESEARCHES ON THE PATHOLOGY OF THE BLOOD.

In this communication Dr. Richardson related a number of new inquiries which he had conducted on the pathology of the blood. He referred specially to four points.

1. The specific gravity of the blood in relation to disease.
2. Fibrinous deposition in the heart.
3. The balance between the column of blood in the lungs and the column of air.
4. Asphixia commencing in the blood.

On the first of these subjects the author described experiments, which went to prove that the exudation of albumen from blood in a shut sac, such as the peritoneum, was sufficient, under certain conditions, to cause exudation of fluid from blood and dropsy, quite independently of inflammation. Next he dwelt on the effects resulting from increasing the specific gravity of blood by adding to it crystalloids such as saline substances and sugars, or bodies that act like crystalloids, specially alcohol. It was maintained that cataract arises from increased specific gravity of blood, and that cirrhosis of the liver is purely a physical change produced from a similar modification of blood.

On the second head, Dr. Richardson dwelt on some new points bearing upon the separation and deposition of fibrine in the heart after Surgical operations, and especially after ovariotomy.

On the third head he treated on the balance of the circulation and the respiration, showing that such balance in health was precisely equal. He detailed various experiments also in which, in animals, emphysema of the lungs resulted immediately, whenever the current of blood was arrested in the pulmonary artery, and other experiments in which congestion of the lungs immediately followed the arrest in the currents of air through the trachea. The relation of these experiments to disease was then explained and illustrated.

On the last head Dr. Richardson maintained that there was

only one mode of death—viz., by arrest in the process of oxidation of blood. He proceeded to point out that it was wrong to confine the term "asphyxia" to mere fault in respiration, inasmuch as there are diseased conditions in which, the breathing being normal, the patient sinks for the sole and simple reason that the blood will not take in the oxygen that is brought to it. In such cases the blood is charged with compounds which by their presence prevent oxygenation, precisely as antiseptics prevent that process out of the body. In typhus Dr. Richardson said this was the common mode of death, and he called it asphyxia commencing in the blood.

ON INHALATION OF OXYGEN.

Dr. Richardson exhibited an apparatus for the inhalation of oxygen. He said that oxygen, which had been so strongly recommended in the treatment of disease, by Beddoes, Davy, Thornton, and others, had never been fairly tested, for the reason that no means were offered that afforded a ready method of inhalation. The apparatus he, Dr. Richardson, now placed before the meeting was so simple that it could be used after a minute's preparation. Some months ago, Mr. Robbins, of Oxford-street, London, had discovered a new mode of producing oxygen, by acting on a powdered substance rich in oxygen, with diluted sulphuric acid. Oxygen was in this way evolved in large quantities and for a long time, and in a manner as simple as that by which hydrogen is evolved when the same dilute acid is poured upon zinc. He, the author, taking advantage of this simple and beautiful method, had devised an apparatus for inhalation of the gas. The apparatus consists of two bottles, a connecting tube, and a mouth-piece. The oxygennesis powder is placed in one bottle, and the diluted sulphuric acid is poured upon the powder. The oxygen thus evolved is allowed to pass into a second bottle through a little water, and from the seoond bottle, to which the mouth-piece is attached, the patient inhales. After describing the apparatus and showing it in operation, Dr. Richardson noticed the case of disease in which he had used oxygen evolved by the method described. He had used it in the later stages of consumption, in asthma, in congestion of lungs, and in uræmia, and with obvious success. His great object, however, was to show to the Association a means by which the members might easily and comprehensibly determine the exact value of oxygen as a therapeutic agent.

C. H. F. ROUTH, M.D., M.R.C.P.,

Physician to the Samaritan Free Hospital for Women and Children.

ON SOME OF THE SIGNS OF EARLY PREGNANCY.

The author referred to the signs of the first period of pregnancy from the date of conception to the fourth month. The symptoms then observed as diagnostic were, cessation of the menses, the purple colour of vagina, and velvety feel of the os uteri, the presence of kiestine in urine, enlargement of abdomen and breasts, and peculiar characters of areola. Only two of these, kiestine and an occasional modification of the follicles of areola, which he described, were at all certain. Auscultation was not supposed, except at the end of the first period, to assist. Naegele stated the placental souffle was heard certainly only at fourth month, Rigby at fifteenth and sixteenth week. Kennedy had, however, heard it as early as twelfth, eleventh, and once at the tenth week, but his experience had not been confirmed by others.

The author thought by means of the Vaginoscope, which he described, and which was in the main a single or double stethoscope with a vaginal speculum attached, that he had succeeded in diagnosing pregnancy by auscultation at a much earlier period.

The earliest sound heard was a general muffled murmur, once interrupted during the pulse beat. It was difficult to describe it. It was an intensely vesicular murmur, an attempt as if it were to produce the ordinary placenta souffle. This was heard from the sixth to the ninth week generally. Its pitch was higher when the placenta was attached near the os. The ordinary placental souffle was heard generally at the ninth week, but he had heard it distinctly at the seventh and eighth week, and once at the sixth. In non-pregnant women the vaginal pulse or a single cardiac sound was heard; also the sounds of the intestines, which, owing to the solidity of the uterus, were transmitted, and distinctly heard. These he had never detected in the case of pregnant women where tumours (fibroid) existed in utero. These were heard, and besides the murmur was tubular, not vesicular, and often attended with a thrill.

The author instanced nine cases in proof: one of thirteen weeks and one day; one of thirteen weeks; one of thirteen, perhaps eleven, weeks; one of eleven weeks and two days; one of twelve weeks and one day; one of ten weeks; one of nine weeks and two days; one of seven weeks, and one of six weeks and two days; in all of which early periods pregnancy had been made out by the vaginoscope.

ON THE USE OF THE HYSTEROTOME IN THE CURE OF UTERINE DISEASE.

After referring to Dr. Simpson's instrument, first promulgated in 1847, and his own double hysterotome in 1849, Dr. Routh stated their use appeared to be then limited to cases of mechanical dysmenorrhœa. Upon the existence and frequency of such cases authors differed. The latest writer, Dr. West, believed them very rare, and only mentioned one case, while he disapproved of hysterotomy altogether, and had known pelvic abscesses follow their employment. Dr. Routh, after showing that pelvic abscess will often result from the mere uterine manipulation, stated his belief that mechanical dysmenorrhœa in London was not very uncommon. A thickening of the uterine mucous membrane following endometritis, a constriction, short of occlusion of the internal or external os, chronic cases of endometritis, antiversion and retroversion, fibroid growths of uterus, and congestion of the uterine organ itself, were all conditions in which the hysterotome could often be most advantageously employed. In this way, by hæmorrhage, the congestion present was effectively relieved. Dr. Routh referred to cases of complete occlusion and the method to adopt before the hysterotome could be used. He pointed out the danger of using it in cases where the uterus contained uterine menses, or a large quantity of retained fluid, showing that then, by the movements of uterus during respiration, air was admitted within the uterus. For the same reason puncturing ovarian cysts per vaginam was bad because air was admitted within them, and the contents became putrid, and death from pyæmia was the common result. The uterus should first be voided per rectum.

Dr. Routh then proceeded to exhibit a variety of hysterotomes. The mistake in all the older instruments was, that the incision made above and about the internal os was as great as that made below. Death had more than once resulted from their use. Dr. Savage had beautifully shown in his plates that this was due to the circular arteries of the uterus, which, coming in at the parts near the internal os, were cut through. Dr. Greenhalgh had, therefore, invented a double hysterotome, by which the incision made was triangular—*i.e.*, small above at the internal os, large below at the external. This was most important, as in this way all risk of undue hæmorrhage was avoided. This was a perfect straight hysterotome, made by Weiss, well guarded and narrow. Its only objection was its price. Dr. Savage had invented three hysterotomes—1. A straight double-action hysterotome, something like Smellie's scissors, and which, by means of the adjustment of a spring inferiorly, might cut much or little at will. 2. An hysterotome, first manufactured in France by Matthieu, having the same double triangular action as Dr. Greenhalgh's, with metal plates covering the same: by altering the position of the pins on which it worked, it could be made to cut much or little. 3. A straight hysterotome, with action same as the last, made by Weiss, as it was found that the length of incision of last varied with position of pins. These instruments were all cheaper. The first and last were made by Weiss.

The last instrument he referred to was his own, manufactured by Coxeter. Having found that in cases of complete antiversion and retroversion, it was sometimes very difficult to put in a straight instrument, he had devised one with a curve, like Simpson's sound. This curve was the arc of a circle, and extended to three times the length of the uterine portion of the instrument; so that the blades, moving on the same plane, could cut very easily. The internal mechanism was in the main the same as that adopted in Dr. Savage's French instrument. It was the cheapest of the English instruments.

ARTHUR ERNEST SANSOM, M.D.,

ON THE ACTION OF ANÆSTHETICS AND ON THE ADMINISTRATION OF CHLOROFORM.

"The early notions as to the action of the volatile anæsthetics—and these are now the generally received ideas—were that they exerted a primary action upon the brain and nervous system. In virtue of a particular elective affinity, they stored themselves up in the cerebro-spinal centres, and exercised a sort of stupefying action thereupon. Lallemand, Perrin, and Duroy having found after death from the inhalation of anæs-

thetics a larger proportion of each anæsthetic employed, in the nerve matter than in any other part of the organism, argued (1) that they accumulate in nerve substance by virtue of an affinity of election, and (2) that thus, and thus only, are they capable of abrogating the functions of the nervous system. And now it is the general habit to speak of these bodies as having an active influence on the brain, and to consider them as special nerve poisons.

"A primary difficulty has been advanced to this theory by MM. Faure and Gosselin, whose experiments tend to show that chloroform applied to, or circulating in, the brain merely as chloroform fails to produce anæsthesia. Therefore to some this paradox of elective affinity has been the occasion of a deeper investigation, and these combined labours point to a more universal cause for the phenomena of etherisation. The element of the organism to which these observers refer the first action of anæsthetics is the blood.

"When chloroform or ether is inhaled it may do one of two things: it may be absorbed and be projected throughout the body, manifesting its presence by its direct action on the nervous system, or it may act upon the blood, modifying its vitalisation. And when we consider the vast vascular area to which, in the progress of inhalation, the anæsthetic is applied, it is not difficult to appreciate the influence exerted on the phenomena of aëration of the blood.

"It is not doubted that there are certain gaseous bodies capable of thus influencing hæmatosis, the action of which is precisely analogous to that of the other æsthetic agents. Carbonic acid and carbonic oxide produce an exactly similar train of symptoms to those induced by ether or chloroform, and that these act by an influence on hæmatosis is undeniable. One is led to ask wherein is the difference of action between chloroform and these? MM. Lallemand, Perrin, and Duroy separate them widely, because they find the liquid vapourisable anæsthetics in greater quantity in the brain after death than in other parts of the body. This evidence is but little worth when we consider how admirably the brain is adapted from its soft structure and free supply of blood to allow exosmose and the storing up of fluid in its substance. And the theory is rendered still more incredible when we ask, How is it that in chloroform narcosis the effects pass off with such rapidity, with a facility quite disproportionate to that of eliminating a quantity of fluid impregnating the brain?

"Both analogy and observation show that the phenomena of narcosis are due, not to the influence of a circulating poison, but to the influence of an altered blood. Given, then, that chloroform, ether, etc., act by suspending oxygenation, how do they effect that suspension? Obviously either by acting upon the blood itself or upon the structures through which oxygen passes into the blood.

"M. Faure adopted the view that an ecchymosis of the lungs occurred, and impeded the entrance of air. The abundant proofs, however, of the absorption of chloroform and the production of anæsthesia when injected under the skin or into the peritoneal cavity—the commonly-observed fact that after death from chloroform the lungs are not congested, but pallid; and the consideration of how much then ecchymosis, if they occurred, would compromise life—are sufficient to invalidate the theory. The fact is, therefore, that chloroform directly influences the fluid blood. It has the property of diminishing the tendency of the organic constituents of the blood to unite with oxygen.

"Dr. Jackson, of Boston, has recorded a case in which he found the whole of the chloroform to have changed by oixdation to formic acid—it had robbed the blood of its oxygen. On the other hand, there have been many cases in which the chloroform has been recovered unchanged.

"What is the exact nature of the action is difficult to say, but the author considered it probable that the cell-wall of the blood corpuscle was so affected as to impede the entrance of oxygen.

"The first effect in narcosis is increase in frequency and force of the heart pulsations, a subsequent effect is decrease of both; the increase is due to heart stimulation, and to disturbance of the molecular change in the brain; the decrease, to the more exalted brain disturbance, and the loaded state of the capillary system."

The author gave the results of a number of experiments upon the effects of anæsthetics on the circulation as seen in the web of a frog's foot under the microscope. In these experiments he had received the valuable assistance of Dr. John Harley, of King's College. The conclusions were these:—

(1.) In the case of all the anæsthetics employed—carbonic acid, ether, alcohol, and chloroform—there is an increase in the flow of blood in the whole vascular system.

(2.) There is, next, decided contraction of the arteries, the current maintaining its original force. Contraction may persist throughout perfect anæsthesia, and dilatation of the artery is evidence only of too profound an action.

(3.) Sluggishness of the capillary circulation is observed. Sometimes the corpuscles agglomerate. They toil along in an irregular current.

(4.) Dilatation of the artery; increasing sluggishness of circulation; stasis.

These stages are constant in the case of the other anæsthetics; in chloroform they vary with the strength of the vapour. If the vapour be strong, the stop of contraction is of very short duration; frequently dilatation rapidly supervenes, and there is great embarrassment of the capillary circulation.

Failure of the circulation is the cardial sign of danger in chloroform administration. In nearly all the cases of death from chloroform, pallor of the face and failure of the pulse were the first signs of danger.

The manner of death from chloroform varies. It varies in experiments according to the nature of the animal, and that directly in proportion to the independent contractile power of the heart. The heart of the higher animals soon succumbs to the power of chloroform, but yet it always outlives respiration. The heart of the lower animals continues to contract, and resists the most profound action. In man the heart, possessing but little automatic power, yields first; in children, however, the heart has less dependence on the central nervous system, and hence their immunity from chloroform-syncope.

Reviewing the signs and symptoms of induced anæsthesia, the following considerations have their weight in reference to the proper modes of administering chloroform:—

In all cases of experiment upon animals the symptoms of narcosis are induced in the most regular, uniform, and safe manner when freely-diluted vapour has been administered. Highly charged atmospheres always cause great trouble of the capillary circulation, but dilute atmospheres allow, as it were, the gradual accommodation of the system to the new state. When, after some time, a weak atmosphere has been breathed, a strong dose has been administered, there is far less irregularity than as if the concentrated atmosphere had been breathed at the first. The dangers of a strong dose are obvious in our experience with respect to the human subject, and we know that one containing 6 per cent. of chloroform is fatal to animals. Everything shows us that when we deal with chloroform we deal with a dangerous drug, and it is incumbent on us to use the utmost caution.

The author strongly urged that mechanical means for ensuring the due dilution of chloroform vapour should be employed, and that the question should not be considered one of convenience only. In giving chloroform upon a handkerchief or upon folded lint, you have no knowledge whatever of the strength of the atmosphere inhaled. Assurances of personal confidence in the anæsthetic are of little use. People who boast that they have given it two thousand times and have never had a fatal case, should know that only the probable proportion of deaths to inhalations is one to twenty thousand. And this is far too much. Chloroform ought, in the nature of things, to be rendered absolutely safe.

Two methods present themselves as void of danger. One provides the inhalation of a definitely weak atmosphere; that never rises above $3\frac{1}{2}$ per cent. This is only attainable with absolute certainty by Mr. Clover's method,—the proportions of chloroform vapour with atmospheric air being commingled beforehand, and kept in an india-rubber reservoir.

A second plan commences with a very slight proportion of chloroform—an almost inappreciable quantity—and provides a gradual increase in the proportion of chloroform inhaled. All analogy shows that to a certain extent tolerance of chloroform can be induced just as tolerance of vitiated air can be. The dangers of chloroform narcotism are not in a direct ratio with the quantity of chloroform absorbed, for it is a fact that most of the deaths have occurred in cases where anæsthesia has been incompletely established, and the quantity of chloroform inhaled has been small. There has been an intolerance—a repudiation—of the vapour at the first.

Coughing and struggling, and voluntary withdrawal from the chloroform-besprinkled surface, are signs of this intolerance; but when chloroform is given in an absolutely progressive manner these signs never occur.

The instrument which the author uses admits two direct currents of air besides the current admitted by the aperture of

Sibson's face-piece. (a) These currents are gradually cut off by the mere revolution of one tube upon another. An atmosphere of any concentration up to 5 per cent. can thus be breathed.

The author hoped that soon Medical practitioners would no more allow their patients to inhale the uncertain atmosphere given off from a folded handkerchief, than they would permit them to take unlimited draughts of a solution of morphia.

A discussion followed, in which Dr. Gibbon, Dr. Richardson, Dr. George Buchanan, Mr. Clever, and Mr. Solomon took part.

Dr. Gibbon in the main agreed with Dr. Sansom.

Dr. Richardson described that the action of all anæsthetics and all narcotics was the same in principle; they, one and all, by their presence prevented the combination of oxygen with oxidised matters, and they, one and all, prevented combustion. They acted in the same manner out of the body. and the whole of the phenomena of anæsthesia could, as Snow had said, be demonstrated "on a farthing candle." This discovery of the action of anæsthetics was due *exclusively* to the late Dr. Snow, who had brought it to such perfection of proof that more could scarcely be added to it. Chloroform, therefore, acted generally through the blood; it checked all chemical combination, and it checked the development of force; it produced, in plain words, a temporary death, from which the patient recovered only by virtue of the fact that the narcotic being volatile it could, under careful manipulation, be given until the patient had reached near enough to death to be operated on without sensation, and then, the vapour being withdrawn, could recover by a process of gradual evolution of the narcotic. It was not that oxygen acted on a particular part of the blood, as Dr. Sansom had suggested, not that it acted on the blood corpuscles only, but that it produced a general action which suppressed oxidation. The process was most simple, and it not only resembled the process of insensibility brought about by carbonic acid and other negative poisons, but also the insensibility that follows from extreme cold locally or generally applied. After showing that all anæsthetics were likewise antiseptics, Dr. Richardson said that as in anæsthesia from chloroform the body was brought as near as was just safe towards inertia or death, it followed that the dangers incident to the process were greater or lesser according to the health of every important organ and the unity of function that prevailed. He was proceeding to illustrate this point, but, as the time allotted to each speaker was up, he closed his observations by thanking Dr. Sansom for the very able and advanced paper which he (Dr. Sansom) had laid before the Association.

Dr. George Buchanan, of Glasgow, described an instrument, by Professor Lister, for pulling forward the tongue in cases where death from chloroform was apprehended.

Mr. Clover, of London, described at some length the method of administering chloroform by accurately measuring it in a balloon or bag before inhalation. In this way the quantity of $3\frac{1}{2}$ per cent. could be sustained.

Mr. Solomon explained the mode of administration of chloroform pursued at the Eye Infirmary at Birmingham. The chloroform was let fall drop by drop on a portion of flannel or linen laid over the face of the patient. The discussion altogether created much interest.

JAMES VOSE SOLOMON, F.R.C.S.,

Surgeon to the Birmingham and Midland Eye Hospital.

THE RADICAL CURE OF EXTREME DIVERGENT STRABISMUS.

The author limits the term "extreme" to cases where the patient, let his muscular efforts be ever so great, can do no more than bring the eye to the centre.

He said he should confine himself to the consideration of cases which had their origin in either a badly-performed operation for convergent squint; or in a paralysis of the inner rectus muscle, the disease which had occasioned the paralysis having been removed or become stationary. This class would obviously require careful selection and a special regard to their pathology before recourse was had to surgical treatment.

When the deformity was due to a badly-performed operation for internal strabismus, the rectus internus had become shortened in consequence of its tendon having obtained a too posterior attachment. Consequently whatever operation was instituted for the radical cure of the deformity and the restoration of convergence, should afford some means whereby the contracted muscle could be extended and fixed in such a position that its tendon would acquire a much more anterior attachment.

Mr. Solomon, after giving a critical review of the methods which had been adopted by other surgeons for the relief of the cases under consideration, described his plan of operating as follows:—

In the first step he makes a flap of the parts containing the inner rectus, which he commences by a rather long perpendicular incision, at about half a line from the inner margin of the cornea. In order to make the flap come forward and over the cornea, two short incisions are practised through the conjunctiva and fascia from the extremities of the first one, towards the nose.

As soon as it is found that the flap will reach on being stretched as far as the vertical meridian of the cornea, when the eye is in the centre of the orbit, the external rectus is divided by a perpendicular incision just behind the insertion of its tendon. The conjunctiva which intervenes between this incision and the outer margin of the cornea is reflected forwards, and made to form a second flap. The two flaps are now united over the vertical meridian of the cornea by sutures.

The author has found that the eye under these circumstances always occupies the centre of the orbit. The after treatment is important. Both eyes are kept closed and covered by cotton wool for ten or fourteen days. The central suture is removed on the second or third day, so as to prevent corneitis.

Inflammation of the conjunctiva or pain in the eye are subdued by the immediate application of two, three, or four leeches, and the use of morphia internally.

Mr. Solomon has practised this method for upwards of four years with success, and in the present had treated a case of complete paralysis of the inner rectus on the same plan, with some slight modifications adapted to the changes which had taken place in the muscles.

The paper was illustrated by stereoscopic pictures, carte de visites, and large drawings of patients as they appeared before and after the plan which the author advocates had been put in force.

One of the photographs exhibited the amount of convergence which the patient, who suffered from paralysis of the third nerve, now enjoys. It was nearly normal.

Mr. Solomon claims for his operation the following advantages:—

1. That in healthy subjects it is perfectly safe. He has never lost an eye.
2. That it completely removes the external squint.
3. That it restores a considerable amount, and sometimes a normal degree, of convergence.
4. That it is successful in cases where the deformity is dependent on paralysis of the inner rectus.

Mr. Ernest Hart (London) admired Mr. Solomon's plan, but suggested that prismatic glasses, of sufficient power, might be made to produce the same result.

Mr. Solomon replied that prismatic glasses had been tried; but no person could bear to use them long enough to be cured by them. Moreover, these glasses had been found quite insufficient to cure anything like a severe squint; and he would ask Mr. Hart if he had ever met with such a case of extreme divergence as that which he (Mr. Solomon) had exhibited, which had been cured by these glasses. He (Mr. Solomon) knew of no such example, and in his opinion the science of Ophthalmic Surgery altogether yielded none such.

BALMANNO SQUIRE, M.B. Lond.,

Surgeon to the West London Dispensary for Diseases of the Skin; Lecturer at St. Mary's Hospital Medical School.

ON OCCIPITAL AND CONSTITUTIONAL IMPETIGO OF THE SCALP.

The author said that he had called his communication a paper on occipital and on constitutional impetigo of the scalp, because from some researches he had been making during the past year he had arrived at the conclusion that impetigo of the occipital third of the scalp is scarcely ever of constitutional origin, and that constitutional impetigo of the scalp affects usually the anterior two-thirds of the scalp, leaving the occiput free—the occipital variety of impetigo being due to the irritation caused by the presence of the pediculus capitis.

In the great majority of the cases of impetigo of the scalp (a disease which may be said to be peculiar to childhood) the eruption is almost entirely confined either to the forepart or to the hinder part of the scalp; in a minority of cases the disease is more diffused over the whole scalp, but is always worst either at the front or at the back of the head. In every

(a) These instruments are made by Matthews, of Portugal-street.

case that the author had yet examined, without a single exception, he had found that whenever the disease was most severe at the occiput it was associated with the presence of pediculi, and that whenever the eruption was most marked at the sinciput no trace of the pediculus even on most careful search could be discovered.

He had also noticed that occipital impetigo differed from constitutional impetigo in other particulars besides its situation. These particulars he entered into in detail.

The question might arise, could the pediculus give rise to sufficient irritation to cause so severe an affection of the scalp? This objection the author anticipated by referring to the almost maddening irritation that was frequently complained of by persons affected by the pediculus pubis. Again, it might be asked does the presence of the pediculus capitis always produce occipital impetigo? To this the author would reply, that he had frequently seen instances where it had not done so, and he classed them with those cases, not at all rare, of affection from the pediculus pubis where the patient complained of no irritation whatever.

SPENCER WELLS, Esq.

SOME CAUSES OF EXCESSIVE MORTALITY AFTER SURGICAL OPERATIONS.

The author showed how the most recent discoveries in Physiological Chemistry—namely, those of Pasteur on fermentation and putrefaction, and on the existence of organised corpuscles in the atmosphere; of Davaine, on the development of Bacteria in the blood; of Panum, on the injection of putrid matters into the blood; and of Polli, on the action of the hyposulphites—confirmed the practical lessons taught by modern sanitary science as to the construction and arrangement of Hospitals, and the ventilation of any rooms in which patients are placed after operations. He showed that Hospitals should be smaller, have fewer floors or stories, fewer wards, fewer beds in each ward, and should be surrounded by open spaces. A number of other precautions were alluded to, for which we must refer to the paper itself, which we hope to publish entire in an early number.

In the discussion that followed, Dr. Routh (London) said the main question was—how were the spores to be got rid of? The question resolved itself into one merely of ventilation; and he should show that a plan had been tried which got rid of these creatures which inhabited the atmosphere. Openings at opposite sides of rooms had been tried; but the plan had been found impracticable, inasmuch as patients could not bear to have the windows open; and even if they could, the spores still continued in the air. In the Samaritan Hospital, a plan had been introduced, which had proved very successful—that of putting in the highest point of the room perforated zinc, which allowed the change of air in the room, and prevented the admission of these spores. The plan acted on the same principle as a chimney in drawing out the bad air, whilst all the fresh air came in from the outside without being impregnated with these spores, which were kept out by the zinc. It was a great evil that this central chimney did not exist in more Hospitals than it did. He had adopted the same principle in the Cripples' Home, and was quite surprised at the changed state of health existing among the children.

Dr. Thudichum (London) had given some attention to the subject; and with regard to an allusion in the paper to the use of old bandages, etc., said that no washing or chemical processes could erase the stains from the cloths which had been used for decomposing wounds. He had noticed the Hospitals where old bandages were not used; and the result of the comparison was such that he would advise that all bandages, lint, and in fact everything brought into contact with a decomposing wound, should be burnt. He alluded to certain sporules which were found in thousands and in millions in the muscular fibre in cases of open wounds, where they multiplied at a marvellous rate.

Dr. Camps (London) thought a good deal depended, in the matter of mortality, on the after-treatment adopted. Dr. Valentine Mott, of New York, who had as much experience and success in these matters as most men, freely used opium. He (Dr. Camps) thought the use of opium might be more freely introduced in our Hospitals, as it was proved to have a very satisfactory effect. The after treatment, no doubt, had a great deal to do with the final issue.

Dr. Radclyffe Hall (Torquay) said that in the Exeter Eye Hospital, a simple plan had been introduced which had proved very successful. It was simply to have a stove in the usual fire-place, with an aperture close under the ceiling, through which a tube passed down to the stove. The stove, having a closed door, received the foul air, which was charged with spores, so that these were got rid of, and the air was purified. At Torquay the plan had been adopted with as much success as at Exeter.

Mr. Moore (London), said the matter under discussion involved the question—What is a patient? A patient in London and a patient in the country were very different. An important consideration, too, was the material of which the Hospital walls were composed, The material should be such as would bear constant washing down, so that offensive materials might be removed.

Mr. Sansom (London), said the great cause of danger was pus; and the way to lessen the danger was to provide means for preventing the formation of pus. Healthy men who had wounds, etc., should be separated carefully from those who were unhealthy, as the pus in the one case was very different from that in the other.

Mr. Spence (Edinburgh), thought too much reliance was placed upon general statistics. Very much as to the percentage of deaths after amputation depended upon the particular part of the body where the amputation took place; and a great variety of circumstances influenced the result even of amputations in the same locality of the body. The comparison of cases which had been treated under precisely similar circumstances would lead to much more accurate conclusions than mere generalised statistics.

The President, in concluding the discussion, said that reference had been made to the improvements at Addenbrooke's Hospital. The author of the paper had alluded to the addition of the third story as injurious. He (Dr. Paget) agreed with him; and though he had at the first been one of the chief promoters of the alteration, yet at the last he so entirely disapproved of the course pursued, that he felt bound to disclaim any responsibility in the matter. Still the arguments in favour of the proposed alteration were strong, and it was thought that the new Hospital would be a great improvement on the old one. He regretted that the gentleman who had so ably maintained these arguments was not now present; but, for his own part, he thought that a great mistake had been committed.

ERASMUS WILSON, Esq., F.R.S.

ON THE NATURE, THE VARIETIES, AND THE TREATMENT OF ECZEMA.

Mr. Wilson called attention to the great prevalence, the almost universality of eczema, its existence at all ages, and in all ranks of life, and the considerable proportion which it bears to other diseases of the skin, equivalent, in fact, to 30 per cent. He then reviewed the disease as it was known to the ancients, by whom it was distinguished by several names,—the Greeks calling it psora, psoriasis, lichenes, and pityriasis; the Romans, scabies, impetigo, papulæ, and porrigo—and followed its history onwards to its resuscitation after the gloom of the dark ages; its revival by Mercurialis and Riolanus, and subsequent elaboration and reduction into fairer proportions by Pleuck, and afterwards by Willan and Bateman. The author next pointed out in what manner the Willanean principle tended to the undue subdivision of the disease, and the practical advantages of the more modern method of viewing it; originating with Hebra. He then entered upon the description of eczema, beginning with a definition of the disease and passing on to the consideration of its varieties, and of a rational nomenclature applicable to its different forms. He reviewed the pathology of the disease and the successive variations presented in its course. From the disease itself, the author passed onwards to its causes, and entered somewhat largely on its treatment and therapeutical management.

The cause of eczema he states to be debility; and he distinguishes four kinds of debility—assimilative, nutritive, nervous, and local. The debility is the result of certain remote predisposing causes, of which the principal are—deranged digestion; errors of diet; weakly parentage; vicissitudes of cold, heat, and moisture; anxiety and affliction; hereditary diathesis; constitutional and organic disease; ungenial climate; mental and physical labour; uterine, reproductive, and puerperal derangements; errors of hygiene; gouty and rheumatic diathesis; eruptive and malarious fevers; excessive growth; and vaccination.

From the consideration of the causes, in combination with the pathology of the disease, the author deduced the principles of treatment, which he divides into constitutional and local;

and then proceeds to review the remedies applicable to the treatment of eczema at its different stages and in its different forms.

EDWARD WOAKES, M.D., LUTON,

ON NEURALGIA.

One main point in this paper was an attempt to arrive at the pathological condition of neuralgic affections following injuries in the neighbourhood of the nerve subsequently affected by neuralgia. These were distinguished from neuritis, or simple inflammation of the nerve, and were found, from some six or eight cases adduced in illustration, to occur in persons of a rheumatic diathesis. The argument was then stated. For the repair of the injury the parts become inflamed, in which process the part which mainly concerns the theory broached is the surcharged condition of the vasi nervorum, and the fact of the injured nerve being bathed in the fluid portions of the blood, having in solution the materies morbi of rheumatism. The nerve is thus brought into more intimate connexion with the vitiated fluid of the entire system, and the irritation so induced is inferred to occasion the symptoms usually designated as rheumatic neuralgia. The chronic nature of these cases was found to support the argument, for the poison of the system having obtained a convenient site whereon to exhaust itself, continues the habit of doing so long after the immediate effects of the accident which primarily determined it to the spot have ceased. That a vicious habit of the physical system is as readily established as it is in the moral system, is borne out by the repeated irruption of a constitutional taint in the form of a skin-rash in a definite spot of integument. But whether the explanation hold good or not, it is quite certain that in many of these instances the most persevering application of local remedies is entirely nugatory as regards the relief of the patient, whilst this object is at once accomplished so soon as the constitutional taint is attacked.

Two other cases were adduced in further support of the theory. In one, neuralgia of the brachial nerves was due to impregnation of the system with alcohol, and occurred in conjunction with delirium tremens. In another a most acute attack of tic-douloureux was traced directly to marsh poison. Both were cured by attacking the peculiar blood taint. Now, as the state of the brain in ordinary delirium tremens is confessedly not one of inflammation, and as the cause of the brachial pain was undoubtedly the same as that of the head symptoms, neither was this latter inflammatory, but was due simply to the irritation of the alcohol present in the blood. The conclusion derived from the three sets of cases may be thus stated:—The morbid condition of the nervous system produced by alcohol when it occasions neuralgia is the same, *mutatis mutandis*, where the materies morbi of rheumatism is concerned. The same also of the paludal infection; and in short with any other blood poison. And as this has been shown to be not inflammatory in the one case, neither is it in any of the others.

THE ENTERTAINMENTS.

The meetings of the British Medical Association are as much enjoyed as realised. At every meeting the local members are profuse in their hospitality. This cordial spirit was amply sustained at Cambridge, where Drs. Paget, Humphry, and Latham kept open house, and where the heads of Colleges offered collegiate home to the fullest possible extent. We regret we have space only to refer to the principal entertainments—the *conversaziones* and the dinner.

CONVERSAZIONE AT GONVILLE AND CAIUS COLLEGE.

Gonville and Caius College is the senior of the two Cambridge Colleges which recognise and support more than any of the others the Medical Faculty; and the Master and Fellows invited the members of the Association to a *conversazione* in the College Hall on Wednesday evening, at nine o'clock. The invitation was very numerously responded to, and the entertainment highly pleasing. The *conversazione* was held in the dining-hall of the College, a comparatively recent structure of great architectural beauty and adornment. The roof of the hall, which is beautifully ornamented, attracted considerable attention. There were suspended from the walls the portraits of some of the chief worthies whom the College has produced. Among these, we noticed a fine painting of the celebrated Harvey, by Rembrandt; another of Dr. Caius; whilst the Divinity Faculty was represented by Jeremy Taylor and others; and that of Law by the late Baron Alderson. On the hall-tables were arranged a variety of interesting objects; and these formed the principal feature of attraction. A skull of *Bos primigenius*, with a flint weapon driven into it during life, discovered, in 1863, at a village in the county named Burwell, was sent for inspection by Mr. James Carter, a local Surgeon, and also a geologist of some considerable attainment. Messrs. Smith, Beck, and Beck had a display of microscopes and microscopic objects. Mr. Coxeter had a valuable assortment of Surgical instruments, and among them Dr. Routh's curved hysterotome attracted much notice. The crystal cube statuette miniatures, from the establishment of Mr. Henry Swan, were the object of much curiosity. By means of this invention a miniature representation of the human form or bust is obtained, appearing as a perfectly solid figure, the image being apparently embedded in the thickness of a small enclosed block of glass or crystal, and with the form and expression far more beautifully defined than is possible in a flat portrait. This is effected by a new application of the principles of binocular vision. Messrs. Weiss and Co. also had an assortment of Surgical instruments; and, besides the objects to which we have already drawn attention, there was a great variety of binocular and ordinary microscopes, a thermometer for ascertaining the heat of the body, photographs illustrative of anatomy, pathology, etc., in the oxy-hydrogen lantern, and other curiosities. The *conversazione* was kept up till about eleven o'clock, and during the evening refreshments were obtainable in the Combination-room.

CONVERSAZIONE AT DOWNING COLLEGE.

On Thursday evening the members were entertained by the Master, Professors, and Fellows of Downing College, at a most successful *conversazione* in their dining-hall, and notwithstanding the happy result of the somewhat similar entertainment on the previous evening at Caius College, we can but compliment Dr. Latham on his success in having secured, with some few exceptions, almost an entirely different exhibition. Soon after nine o'clock, not only the members of the Association, but large numbers of members of the University filled the hall, representing almost all professions; and these were soon followed by a large number of ladies, who had been entertained at the lodge of the Downing Professor of Medicine, by Dr. Fisher.

The microscopic department was well represented in some very beautiful instruments, by Mr. Ross, Messrs. Smith and Beck, Mr. Pillischer, Mr. Samuel Highley, and Mr. Baker, exhibiting to the greatest perfection some of the most exquisite preparations that skilful mounting could accomplish. Amongst those which called forth general praise were some slides of selected diatomaceæ, some polycystina, and some marine polyzoa. Messrs. Whicker and Blaise exhibited a large collection of Surgical instruments, apparatus for fractures, and supports and instruments for deformity. Mr. Ernest Hart's demonstrating ophthalmoscope, showing the choroidal and retinal arteries in the eye of a rabbit, was also exhibited. This instrument can be used without the necessity of a dark room, with perfect ease. Messrs. Weiss and Son, and Messrs. Maw and Son, also exhibited some instruments. Portraits of many eminent Medical men were exhibited; amongst them were the members of the Medical Council, very well executed by Mr. G. R. Fitt. Mr. Mayland also exhibited a very fine collection of "Photographs of Views of Cambridge. Dr. Thudichum again gave some very graphic descriptions of the Trichina, and exhibited the parasite living in various stages of development; which he obtained from the muscle of a rabbit infested with them and also from some pork chops. He believes that if meat thus affected is thoroughly cooked the entozoon is entirely destroyed. Mr. Dickson, of Downing College, had a most interesting table of microscopes, exhibiting circulation in healthy and inflamed tissue, and an exquisite section of the spinal cord; also some natural history specimens, amongst which the "Actinophrys Sol," and a specimen of Rotifera (*Brachionus Urceolaris*), were extremely beautiful. Mr. Pain, of Cambridge, exhibited a most successful specimen of vallisneria under a Ross' 1-12th inch power and highest eyepiece. In the combination-room was Messrs. Aubert and Linton's "piping bullfinch;" and in a small darkened room Mr. Deck performed experiments showing the stratification of light by electrical discharges through rarefied media. Some beautiful specimens of delicate chemical substances crystallised in groups were exhibited by Messrs. Johnson; as well as some magnesium wire in a state of com-

bustion, the pure white light of which is used by photographers on account of its possessing actinic properties. During the evening the grounds were most brilliantly illuminated by a powerful electric light sustained by forty Grove's cells (the platinum being six inches by eight inches), under the direction of Mr. Ladd.

THE DINNER,

At which 120 members and visitors were present, was held in the magnificent hall of Gonville and Caius College. Dr. Paget, President, occupied the chair; having on his right the Vice-Chancellor of the University, Sir Charles Hastings, the Mayor of Cambridge, Dr. Thorp, the Provost of King's College, Dr. Vose, and the President of Queen's; and on his left the Bishop of Ely, Dr. Burrows, the Dean of Ely, Dr. Acland, Professor Selwyn, Dr. Jeaffreson, and Mr. Solly. Among the guests present were, also, the Rev. E. H. Perowne, Professor Challis, Professor W. H. Miller, Professor Liveing, and other celebrities. In the course of the evening excellent speeches were delivered by Dr. Paget, Mr. Paget, of London, Professor Selwyn, the Bishop and the Dean of Ely, and other visitors and members, and the feasters broke up declaring, as all merry and true men do, that they never were happier,—a good ending to a good meeting, a meeting in which politics, science, and sociality were united equally. For our parts, we have only one regret, and that is, for the unhappy beings who were not there.

REVIEWS.

On Combined External and Internal Version. By J. BRAXTON HICKS, M.D., F.R.S., &c. London: Longman, 1864. Pp. 72.

EVERY obstetric practitioner must add this thin and unpretending volume to his shelves. It contains an account of the method of turning the fœtus without introducing the whole hand into the womb. Two or more fingers are passed through the os uteri, and push the presenting part in one direction, whilst the other hand, applied externally, pushes the nates or head, as the case may be, in the opposite. Thus, in the case of a head presentation, the head being pushed a little upward and the breech a little downward, the fingers in the os uteri are soon able to hook a knee. The principle involved is, the mobility of the fœtus in its own liquor amnii, or against the lubricated surface of the empty amnotic sac, under the influence of slight pressure, acting in opposite directions on two opposite portions of it. The author speaks highly of it in those cases in which hæmorrhage from placenta prævia is combined with a small rigid os uteri, and in which the bleeding may be checked by bringing down one leg to act as a plug.

The Utilisation of Minute Life; being Practical Studies on Insects, Crustacea, Mollusca, Worms, Polypes, Infusoria, and Sponges. By Dr. T. L. PHIPSON, F.C.S., etc., etc. London: Groombridge. 1864. Pp. 282.

DR. PHIPSON is well known to many of our readers as the author of several memoirs, founded on original research, on subjects which had hitherto eluded the attention of scientific men; we should perhaps say that he is more known on the Continent than at home, for he seems to be an *élève* of the University of Brussels, and his earlier writings were published in French. Amongst them we may refer to his work on Phosphorescence, and to a short paper called "Protoctista, ou la Science de la Creation, aux Points de vue de la Chemie, and de la Physiologie," in which latter he endorses the doctrine of spontaneous manifestation of life. The book before us gives an account of the materials derived by man from the humbler animals whom he has domesticated; and it is full of valuable suggestions on the expediency of adding to their number and increasing their produce. He begins with silk-producing insects; then colour-producing insects; then those which produce wax, sugar, manna, lac, etc.; insects used as food; crustacea, snails, oysters, etc.; then worms, leeches, polypes, infusoria, and sponges. We know of no better lesson for a thoughtful student in physiology and pathology or the diseases of children, than Dr. Phipson's comments on the silkworm; he would see how damp, noise, and impure air are fatal to these precious insects; how voracious they are in their infant days, when the larvæ hatched from an ounce of eggs eat 7 lb. of mulberry leaves in five days, 21 lb. in the second stage of four, after the first moult; 70 lb. in the third stage, 210 lb. in the fourth, and about 1200 lb. in the fifth; on the sixth day of which last period they devour as much as 200 lb. of leaves, and the noise of their jaws is like that of a heavy rainfall. The result of this is about 80 lb. of coccoons. One pound of coccoons is estimated to yield insects enough to furnish an ounce of eggs, leaving 79 lb. for profit. The diseases of this precious insect, which (besides parasites) include jaundice, diarrhœa, dropsy, apoplexy, gangrene, and atrophy,—their origin in "want of care,"—and the great improvement in the breed produced by coupling well-assorted individuals, are well worthy the notice of the anthropologist.

The History of a Bit of Bread; being Letters to a Child on the Life of Man and Animals. By JEAN MACÉ. Part I. Man. Translated from the French, and Edited by Mrs. ALFRED GATTY. London: Saunders, Ottley, and Co. 1864. Pp. 278.

THE work of which this is a translation figures amongst the prize books of the University Commission at Paris, and has reached an eighth edition in its native country. It is an attempt to teach the elements of physiology to children. Now there are two ways of teaching children: the aphoristic or dogmatic, and the diffuse. The former makes use of clear, short, pungent definitions, usually in the form of answers to questions; it appeals to the faith of the catechumen, instructs him in facts, even though he may not see reasons; and, if it be well done, brings up the scholar's intellect to the level of the subject taught. The latter aims at making the matter taught intelligible by profuse illustration and comparison; or, to use the popular phrase, "brings it to the level of the meanest capacities," by a process analogous to mincing, straining, and dilution of food. The writer of the book before us carries the latter process to an extreme. Children really are not fools; they want plain idiomatic objective statements, but do not in the least need the "Georgie-Peorgie" dialect. We can only wish that the translator had weeded out a full half of this well-meaning and well-written, but, we fear we must add, too lengthy book. Any teacher with a pencil and bit of paper could give children a clearer idea of the heart in three minutes than could be got by a study of the nine pages of M. Macé's diffuse comparisons and metaphors in as many hours. The parable in which the explanation is involved is absurd enough to give one a nightmare.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

AUGUST 15.

YOUR readers will have heard through other channels of the fact that about sixty children have been nearly poisoned in this town by eating "Calabar beans," and I send you a brief history of the occurrence, which will not forestall the interest of the full details, which I hope will be published by Dr. Cameron, under whose care forty-six of these cases were treated at the Southern Hospital.

Last Thursday morning, the 11th inst., some rubbish, which looked like ship sweepings and ballast, was emptied on some waste ground not far from the Southern Hospital. This neighbourhood is a densely crowded one, a large proportion of the inhabitants being poor Irish. In such a vicinity every rubbish-heap is pretty sure to be closely overhauled for possible scraps of old iron, bones, and any odds and ends; so that it was not long before a number of little children were poking about the stuff. Soon they came upon some large beans, and began to eat them. The news of the discovery of a dust-heap with something to eat in it soon brought troops of other children to the spot, all eager to share the spoil.

Some ate the beans at once, others carried them off in their pockets. Before long, those who had eaten began to stagger about, and to feel frightfully sick and ill. One little girl said she felt as if her legs were going from under her, so that she could not stand, and she saw everything double. The news of the illness of the children quickly spread through the neighbouring streets, and the patients were carried off, some to the Southern Dispensary, most to the Southern Hospital. The scene at the latter place from two till about four in the afternoon was such as to defy description; but those who have seen the demonstrative grief of Irish mothers and relatives may imagine what it must have been to have forty children, from

2 to 13 years of age, under treatment at the same time, with their mothers, and in some instances their fathers too, in an agony of sorrow and terror—some screaming, clapping their hands, and beating their breasts in a frenzy of grief which nothing could control.

The most prominent and threatening symptom in all the cases was that of extreme prostration of strength, the limbs hanging languidly as the children lay in their mothers' laps, the pulse small and weak, the surface cold, and in some instances covered with cold perspiration. There seemed to be but little pain; some of the children who were old enough to describe their symptoms said that they had a little "belly-ache" soon after they had taken the beans; but there were none of the painful cramps that distinguish a choleraic attack,— in fact, the absence of signs of pain in those admitted was one circumstance specially noted. Many of the children had begun to vomit before their admission to the Hospital, but this symptom was not urgent; a smaller number were purged as well.

The look of the children was generally that of those who are suffering from some depressing cause,—the look of one who seemed to be the worst of the patients, when I was at the Hospital between five and six in the afternoon, reminded me very much of that of a person who is suffering from the shock of a recent and severe injury. In no case were any convulsions present, nor, indeed, any cerebral affection at all. With regard to the state of the pupil there is some degree of uncertainty. When the children came pouring in, many in a state occasioning the gravest anxiety for their lives, it was not known what poison they had taken, and the whole attention of those present was concentrated in the effort to save the lives of the patients, so that it was some time before any special notice was taken of the state of the pupil. Of eight or nine whom I saw, there was one case only in which the pupil was strongly contracted. In this case the child had partially rallied from the collapse, the pulse was tolerably good, and the skin of a natural temperature; but the child looked perfectly listless, and seemed to take no notice of things around. The pupil looked to me very much like that which one sees in a fatal case of poisoning with opium. This contraction yielded, however, when the child was roused by the stimulus of the galvanic battery; but returned again when the child, for a time, relapsed into the same listless state. I think that there can be no doubt but that in this case the state of the pupil was due to the action of the poison. Of four cases admitted on Friday three had no affection of the pupil; in one it was doubtful. The treatment was determined by the indications presented by the patients. The two objects to be attained evidently were to empty the patients' stomachs, and to prevent the patients from sinking under the depressing influence of the poison. In order to accomplish the first of these indications all the patients, whether they were already vomiting or not, had sulphate of zinc administered. To those on whom this did not act the carbonate of ammonia and mustard and water were given, so that in every case, excepting the one in which a fatal result ensued, free vomiting was produced. To counteract the depression, ammonia and brandy were given according to the urgency of the symptoms. Mustard poultices were applied to the abdomen in several cases, and those who were very chilly were wrapped up in warm blankets. Happily in every case but one this treatment was successful. One little boy, aged 6 years, admitted among the first patients, did not vomit after he came to the Hospital (whether he had done so before, I cannot say), and no emetic that could be got down produced any effect. The stomach-pump was used, but nothing came up. Stimulants were given him, but he died. The mode of his death was remarkable; he had seemed from the first in a very low state, with a very low pulse, and Dr. Cameron had just been trying to get him to drink something as he lay in his father's arms, when, quite suddenly, the child gave a sort of shudder, and the mother cried out that he was dead. There was not anything to be called a convulsion, and the change in his appearance was so slight that at first Dr. Cameron doubted whether he was really dead. The pulse had stopped, however, and though artificial respiration and galvanism were promptly used, it was soon evident that he was really dead. The cause of death seems to have been sudden syncope. The body, which I saw about three hours after death, presented nothing peculiar in its appearance; the expression of the features was calm, and there was a little white froth bubbling out of one nostril. The pupils were of medium size.

In the post-mortem examination which was made on Friday, the most important deviation from the normal state was in the heart, the whole structure of which was flabby; and the left ventricle, instead of being firmly contracted, as it so often is after sudden death occurring in a person previously in vigorous health, was relaxed, so that there was nearly as much blood on the left as on the right side of the heart. The stomach and intestines contained a considerable quantity of semi-fluid stuff, having just the appearance of almond emulsion, but not a trace of flocculent matter; this had probably been got rid of by the purgative action of the bean.

As to the quantities of the bean eaten, it is stated that one girl ate as many as twelve; she soon recovered. Another ate two, and was extremely ill; while the poor little boy who died is said to have eaten six.

Some doubts have been expressed as to whether the beans were really "Calabar beans." It seems certainly unlikely that such quantities should have been thrown away as rubbish, seeing that they have been sold here at the rate of thirty shillings a pound; but on comparing the beans, many specimens of which I have seen, with some of the true Calabar beans in the possession of Dr. Nevins, Lecturer on Materia Medica at the School of Medicine, there could be no mistake as to their identity. Some physiological experiments made by Dr. Edwards to-day are important in this connection. A small portion of alcoholic extract from one of these beans placed in the eye of a rabbit caused unmistakable contraction of the pupil. Some of the fluid from the stomach and intestines of the boy who died produced very marked symptoms upon a frog and a mouse, in both of these creatures occasioning great prostration of strength, but not producing any convulsion. The taste was described by one of the elder patients, a little girl, as being not sweet and not bitter, but a little rough. I think it is evident that we have narrowly escaped a very terrible tragedy, for had Medical assistance not been immediately available, and had it not been afforded with the utmost energy as well as wisdom, I feel convinced that there would have been many more fatal cases to record; and it is a matter for no little thankfulness that out of sixty cases only one proved fatal.

MEDICAL NEWS.

UNIVERSITY INTELLIGENCE.—UNIVERSITY OF ABERDEEN.—The following candidates, after the usual Examinations, have received Degrees in Medicine and Surgery during the present year:—

DEGREE OF M.D.—Samuel Davidson, A.M., Wartle, Rayne, George Dickson, L.R.C.P. and S., Edinburgh, William Gregory Van Dort, Colombo, Ceylon, and John Gray M'Kendrick, Aberdeen, honourably distinguished; James Copland, A.M., Edinburgh; John Dunlop, L.R.C.P. and S. Edin., Lanarkshire; John Fraser, Granton; James Andrew Sandilands Grant, A.M., Methlick, Aberdeenshire; William Grant, Methlick; James Foote Henderson, Aberdeen; James Alexander Innes, Banff; Alexander Johnston, Aberdeenshire; James Ledingham, A.M., Aberdeen; William Burnup Leslie, Aberdeen; John Robson, Perthshire; William James Smith, Kintore; Charles James Trenerry, M.R.C.S., Gibraltar; Alfred Harold Wheldon, India; George Charles Henry Wigan, M.R.C.S. Eng., L.A.C., Bristol; George Yeats, Aberdeen.

At the same time the following gentlemen were promoted to the Degree of M.D.:—

James Ross, M.B. (highest honours), and C.M. (highest honours), Aberdeen; William Paterson, M.B. and C.M. (honourably distinguished), Aberdeen; James Clark, M.B., Aberdeen.

DEGREE OF M.B.—George MacIver Campbell, A.M., Old Aberdeen, Robert Alexander Farquharson, A.M., Ballater, and Andrew Skeen, A.M., Tarland, Aberdeenshire, honourably distinguished; George Andrew, A.M., Huntly; Frederick Page Atkinson, L.R.C.P.E., M.R.C.S., L.S.A., Kew, Surrey; Theunis Johannes Botha, Cape of Good Hope; Charles Forbes Buchan, A.M., Kincardineshire; Charles Burnett, Alton, Hants; Stewartson Clark, New Pitsligo; James Davidson, A.M., Strichen, Aberdeenshire; Alexander Duncan, A.M., Aberdeen; James Hector, Aberdeen; Robert Keith, Keith-hall; Robert Davidson Kemp, Aberdeen; Benjamin Knowles, Aberdeen; John Knox, L.R.C.S.E., Tyrone; Godfrey Alexander Macrae, North Uist; Alexander Minty, Kinnethmont; John Murray, Woodside; William Paterson, A.M., Aberdeen; Archibald George Robertson, Edinburgh; William Robertson, A.M., Aberdeen; Robert John Scott, Beverley, Yorkshire; Peter Shepherd, Leochel-Cushnie; William Henry Stewart, Grantown; George Thomson, Aberdeen; Thomas Watt, A.M., Aberdeen.

DEGREE OF C.M.—Robert Alexander Farquharson, Benjamin Knowles, and Andrew Skeen, highest honours; Frederick Page Atkinson, George MacIver Campbell, Samuel Davidson, Wm. Gregory Van Dort, Wm. Gray M'Kendrick, Wm. Paterson, Wm. Robertson, and Robert John Scott, honourably distinguished; George Andrew, Theunis Johannes Botha, Charles Forbes Buchan, Charles Burnett, Stewartson Clark, James Copland, James Davidson, John Fraser, James A. S. Grant, Wm. Grant, John Gray, James Hector, James Foote Henderson, James Alexander Innes, Alexander Johnston, Robert Keith, Robert Davidson Kemp, Robert Ledingham, William Burnup Leslie, Godfrey Alexander Macrae, Alexander Minty, John Murray, Archibald George Robertson, Peter Shepherd, William James Smith, William Henry Stewart, William Sutherland, George Thomson, Charles James Trenerry, Thomas Watt, Alfred Harold Wheldon, George Charles Henry Wigan, and George Yeats.

And at the late Graduation Term the following were declared to have passed part of their Examinations :—

William Scott Aitken, George Henry Anderson, Thomas D. Atkins, William Sharp Birnie, Arthur Woolsey Blacklock, William Center, Alexander Dyce Davidson, Owen Evans, James Farquharson, Alfred John Freeman, John Smith Fowler, George Garvin, Alexander Gibb Grant, Robert Grant, John Thomas Hughes, David A. Kerr, Joseph P. Lackerstein, Alfred Swaine Lethbridge, William Mackintosh, George Maconachie, William Macrae, Andrew A. Macrobin, William M'Donald, Donald M'Ewen, John Stuart M'Gowan, Thomas Milne, Douglas Moir, David Nicolson, James Rodger, James Alexander Skene, Francis Snaith, Edward Sutcliff, James Taylor, Frederick John Wadd, William Abram Walker, William Leaven White, James Williamson, and Horace Winbolt.

THE ARMY COMPETITIVE EXAMINATIONS.—The Director-General of the Army Medical Department presents his compliments to the Editor of the *Medical Times and Gazette*, and begs to enclose a list of the candidates who were successful at the Competitive Examinations in February and March last, and who have passed through a course at the Army Medical School, showing the combined results of the Examinations.—6, Whitehall-yard, London, August 12, 1864.

Names.	*Studied at*	*No. of Marks.*
Wallace, Jno., M.D.	Edinburgh	5064
Jobson, Wm., M.D.	Edinburgh	4755
Fleming, Josh., M.D.	Glasgow	4584
Atkinson, Warner	New College, London	4547
Phillips, H. H., M.B.	Dublin	4486
Orwin, Thos. Wm.	London	4447
Hickson, R. C. C.	Dublin	4157
Bolster, T. G., M.D.	Dublin and Cork	4121
Melladew, H. F. L., M.D.	London and Edinburgh	3981
Middleton, Jno., M.D.	Edinburgh	3956
Finegan, B. J.	Dublin	3880
Leslie, D. A., M.D.	Aberdeen	3789
Muir, H. S., M.D.	Glasgow	3765
Maxham, Jno. Wm., M.D.	Edinburgh	3642
Hyde, Robert	Dublin	3628
Barrow, Thos. S., M.D.	London	3611
Cogan, Michael	Dublin	3594
Turner, Richard, M.D.	London and Edinburgh	3578
Churchill, C. F., M.B.	Dublin	3493
Babington, T.	Dublin	3486
Ambrose, John, M.D.	Cork	3479
Atkinson, Jas.	Dublin	3485
Anderson, Jno.	Manchester	3402
Johnson, Fras., M.B.	Dublin	3335
Minty, Alexander, M.B.	Aberdeen	3306
Atkinson, Geo., M.B.	Dublin	3292
Burke, James	Dublin	3257
Gray, Jno., M.D.	Aberdeen	3226
Malcolm, J. V. T., M.D.	Edinburgh	3226
Kirkwood, T. M.	Dublin	3157
Watts, A. N.	London	3119
Davies, R. W.	London	3091
Wooley, Geo. F.	Dublin	3073
Wunlop, Robert	London	3036
Stock, John N.	Dublin	3035
Ball, John Josh., M.D.	Dublin	3030
King, James George	London	2975
Lithgow, A. M. S., M.D.	Edinburgh, Glasgow, and Paris	2964
Ross, D. P., M.D.	Edinburgh	2960

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following Gentlemen passed their First Professional Examinations during the recent sittings of the Examiners :—

Henry Patchett, Blackburn; David Joshua Jones, Carmarthenshire; David A. Burt, Fifeshire; John Mitchell, Forfarshire; John Davies, Dublin; William Alister Catherwood, Donaghadee; William Charteris, Dumfriesshire; Thomas Beamish, Cork; John Burton, Staffordshire; James Clapperton, Queen's County; Joseph H. Rockett, Yorkshire; George B. Murray, Dumfriesshire; Richard O'Brien, Ennis; Samuel Hague, Ashton-under-Lyne.

The following Gentlemen passed their Final Examinations, and were admitted L.R.C.P. Edinburgh, and L.R.C.S. Edinburgh :—

Schœdde Robertson, Athlone; David Erskine Hughes, Edinburgh; Francis Buchanan White White, Perth; Henry Black Purves, Kelso; Donald Macgregor, Perthshire; Andrew Brown, Biggar; Valentine Stone, Brechin; David John Walsh, County Cork; Joseph Jackson, Cumberland; Patrick Kynock, Roxburgh; William Laidlaw Purves, Edinburgh; Henry Northage Land James, Derbyshire; William Jackson Elmslie, Aberdeen; Joseph M'Donnell, Roscommon; Edwin Wheeler, Belfast; Thomas Mein Austin, Edinburgh; Thomas James Haines O'Connor, County Cork; William Ballin Thompson, Kerry; Austin Huitson Nicholls, Dublin; William Joseph Hepburn, Dublin; Edward M'Craith, County Cork; William Hixon Arrowsmith, County Durham; Cornelius Buckley, Skibbereen; Thomas Radford King, Sussex; Frank Kennedy Dickson, Edinburgh; Alexander Clarke, Campsie; Charles Howard Clarkson, East Indies; George Lion Carrick, Cronstadt.

ROYAL COLLEGE OF SURGEONS, EDINBURGH. — The following Gentlemen passed their First Professional Examinations during the recent sittings of the Examiners :—

John Clark M'Nicol, Argyllshire; Robert Gilmer, County Antrim; John George, Carrickfergus; James M'Ilroy, Bushmills, Ireland; Alexander Young, Port Glennie; R. Gilbert Williams, Kinsale.

The following Gentlemen passed their Final Examinations, and were admitted Licentiates of the College :—

George Hogarth Turnbull, Roxburghshire; James Charles Foley, County Cork; Angus M'Kay Porter, Belfast; Humphrey Carden Gillespie, Cork; Patrick O'Keeffe, County Cork; Cuthbert Henry Robinson, Yorkshire; John M'Gregor, Caithness; Andrew Watson M'Andrew, Orkney; William Skipton, Irvine, Londonderry; Robert Oliver Cunningham, Prestonpans; Robert Wright, Edinburgh; William Campbell, Fort-William; William M'Neil, Wigtownshire; James Brims, Caithness; James Smith Crichton, Arbroath; Robert Anderson, Haddingtonshire; Robert Gunn, Caithness; Robert Bremner Thomson, Fochabers; Kenneth M'Leod, North Uist; James Montgomerie Alston, Glasgow; Alexander M. Anderson, Perthshire; Joseph Richard M'Closkey, Londonderry; Frederic Daly, County Cork; Christopher Patrick Bodkin, County Galway; John Orr, Glasgow; John Moffat, Isle of Man; David Arno Smet Thorburn, Florence; David William Telford, County Antrim.

APOTHECARIES' HALL. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, August 11, 1864 :—

James Matthew Lowndes, 213, New Kent-road; Joseph William Barrett, Eton, Bucks; James Walbridge Snook, St. Bartholomew's Hospital.

The following gentlemen, also on the same day, passed their First Examination :—

Frederick Marshall, King's College; John Roberts Dunn, Middlesex Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

CAMERON, A., M.D., has been appointed House-Surgeon and Apothecary to the Northern Infirmary, Inverness.

EVANS, BENJAMIN, F.R.C.S. Eng., has been appointed a Medical Member of the Metropolitan Board of Works.

FAIRBANK, FREDERICK R., L.R.C.P. Lond., has been appointed Surgeon to the Cholera Dispensary, Manchester.

DEATHS.

CAMPBELL, JOHN CHARLES, M.D., at Stanley-hall, Gloucestershire, on August 9, late of the 4th Light Dragoons.

FARRAR, LUKE, L.S.A., at Jersey, on August 6, aged 64, formerly of London.

GILCHRIST, Dr. ARCHIBALD, R.N., at Kirkton Bank, Carluke, Scotland, on August 4.

KING, GEORGE, Surgeon, at the Royal Medical Benevolent College, Epsom, on August 11, aged 74, formerly of Bath.

SIMS, WILLIAM HENRY, L.S.A., at Winster, Matlock, Derbyshire, on July 30, aged 52.

TAYLOR, CHAS. GIBSON, M.R.C.S. Eng., at Stratford, Essex, on August 14.

THE QUEEN'S COLLEGE, BIRMINGHAM.—The academical year terminated on the 31st ult. The official "returns" to the Society of Apothecaries, the Royal College of Surgeons of England, and the Royal College of Physicians, "of the names, age, date of entry, what preliminary examination in general knowledge the student has passed," signed by each student, attests that forty-two students have been registered during the past session. The *honoraria*, competed for at the terminal examination of the students of the respective classes, and which, in accordance with the College regulations, all students are expected to attend, have been awarded to the following students :—*Anatomy*—Thomas, 1st medal and certificate; Sawyer, 2nd certificate. *Anatomical*—Thomas, 1st medal and certificate. *Demonstrations*—Sawyer, 2nd certificate. *Chemistry*—Snow, medal and certificate; Beech, 2nd certificate. *Medicine and Pathology*—Mackey, medal and certificate; Bousefield, 2nd certificate. *Physiology*—Thomas, medal and certificate; Sawyer, 2nd certificate. *Surgery*—Mackey, Bousefield, *æq.*, 1st medals and certificates.—*Summer Session.—Botany*—Snow, medal and certificate; Beech, 2nd certificate. *Practical Chemistry*—Snow, medal and certificate; Beech, certificate. *Forensic Medicine*—Thomas, medal and certificate; Bennett, second certificate. *Materia Medica*—Sawyer, medal and certificate; Witherington, second certificate. *Midwifery*—Sawyer, medal and certificate; Witherington, certificate.

THE BUCHAN MEDICAL SOCIETY.—This association met at Old Dea on the 2nd inst. A table of fees was drawn up, and unanimously approved of, and ordered to be published. Amongst other matters, the position of Parochial Medical Officers was taken up; and it was resolved to ask other associations to co-operate in procuring that their appointments should be *ad vitam aut culpam*, instead of annual, as they are at present. Fourteen gentlemen sat down to dinner, and spent a very agreeable evening together; Dr. Cooper in the

chair. Dr. Gavin, Strichen, was elected President for 1865, and Dr. Bruce, Crimond, Secretary. The subject for discussion at next meeting is to be "Obstruction of the Bowels."

THE ASSAULT ON DR. ROWE, OF LIVERPOOL.—James Potts Brice and James Scott, the ruffians who murderously assaulted Dr. Rowe, of Liverpool, were tried on August 10, found guilty, and sentenced to eighteen months' imprisonment with hard labour.

DR. BROWN-SÉQUARD.—The visit to America of this celebrated physiologist is likely to be converted into a permanent residence there, after having abandoned the positions he had successively acquired in Paris and London. He has just received an appointment to the Chair of Physiology and Pathology of the Nervous System (specialised, we presume, expressly for him) at the Harvard University, Boston.

THE SOCIAL SCIENCE CONGRESS AT AMSTERDAM.—The International Association for the Social Sciences (the head-quarters of which is in Brussels, and which held one of its meetings in London contemporaneously with our own Social Science Association in 1862) has fixed its next place of meeting at Amsterdam. The Congress will continue its sittings from September 26 to October 1, and has published a long list of subjects to be discussed in the five sections of Comparative Education, Instruction and Education, Art and Literature, Public Charity and Hygiene, and Political Economy. Letters to be addressed to the Secretary, 20, Rue de l'Enclume, Quartier Leopold, Brussels.

THE FOOD OF CONVICTS.—The following is an extract from the circular letter on Penal Servitude, addressed to the judges by Sir George Grey:—"A notion had prevailed in some quarters that the diet was excessive in quantity and unnecessarily good in quality, and the subject was brought under the notice of the Royal Commissioners, who, upon the evidence before them, did not feel justified in recommending any change, though they advised that experiments should be tried, in order to ascertain whether any reduction could safely be made. In conseqence of this suggestion, the matter has since been more fully investigated by a committee of experienced Medical men, appointed for that purpose only, and the result has been a moderate reduction in the quantity of food allowed, both in the stage of separate confinement and in that of hard labour upon public works. This alteration has only just been introduced in practice, but there is no reason at present to doubt that it will be attended with success."

THE FATAL ACCIDENT AT WIMBLEDON.—The following evidence was given by Staff Assistant-Surgeon Guinness at the inquest on the body of the unfortunate Guardsman who was accidentally shot at Wimbledon:—"I was on duty on the afternoon of July 21, and I was summoned to Thomas Cooper in the volunteer Surgeons' tent. There were several volunteer Surgeons present. I took charge of him then in conjunction with Dr. Westmacott, of the London Scottish. I found that the man was suffering from a gunshot wound in the chest, and was in a complete state of collapse. The ball had entered behind between the ninth and tenth ribs, and glanced upwards to the third and fourth. It had entered at the back, at about two inches from the spine. There was a bruised mark at about an inch and a-half above the nipple. The bullet was in his body. From that day the man was under my charge, in conjunction with Surgeon-Major Wyatt, and he progressed favourably until last Friday night, when congestion of the right lung set in. From that time to the time of his death, which happened on Tuesday morning, he was in an alarming condition. I made a post mortem, in conjunction with Surgeon-Major Wyatt, and I found the ball produced. [The ball was shown. It was the common Enfield, and was flattened at the point.] It was lying loose against the diaphragm where the diaphragm is attached to the spine. I traced the wound from the external orifice into the lung. The ball had passed through the muscles and through the lower lobe of the left lung, and had lodged between the third and fourth ribs on the left. The man died from congestion of the right lung, and his death decidedly arose from the injury he received. The ball is a rifle ball, and it is flattened by going through three inches of board backing."

CRYSTAL SANITARIUM COMPANY.—No doubt the climate of Madeira, a few miles from London, would be a marvellous boon to patients and Doctors, if it could be procured. As it cannot, we have under the above name a company started to provide the equable temperature which is supposed to be the chief advantage to be obtained in that and other Southern health resorts. The promoters of the company have obtained the adhesion of a large number of the leading Medical men in London, and we believe they are sanguine as to the success of their plan. They contemplate buying an estate of 140 acres at Esher, covering it with glass, and building residences, having communication with the enclosed ground. The interior is to be laid out in gardens, with suitable plants, trees, etc. We should like to know a little more of their plans for ventilation and building before we express any opinion as to the scheme.

THE EDINBURGH COLLEGE OF SURGEONS ON THE STATE OF THE ARMY MEDICAL DEPARTMENT.—We have great pleasure in publishing the following memorial, which has been addressed to Lord Palmerston by the Royal College of Surgeons of Edinburgh:—"To the Right Honourable Viscount Palmerston, K.G., First Lord of the Treasury.—The Memorial of the Royal College of Surgeons of Edinburgh humbly showeth,—That the Royal College of Surgeons of Edinburgh have long been charged with the duty of licensing Surgical Practitioners, and have always endeavoured, to the utmost of their power, to promote the welfare of the Medical Profession for the public good. That the attention of the College has been called to the present state of the Army Medical Department. That it is obvious that that department is not in a satisfactory condition, there being, as the College have reason to believe, wide-spread discontent among the army Medical officers—the Medical service of the army having become so unpopular that Medical men are repelled from it instead of being attracted to it—and that there is found to be great difficulty in filling up vacancies as they occur, and that to an extent which seriously mars the efficiency of the service, and imperils the health of the army. That, under present regulations, the service does not hold out inducements sufficient to secure a supply of competent Medical men; and that much fewer high class Medical men than might be expected, under different arrangements, offer themselves at the Competitive Examinations. That, in consequence of this lack of candidates, the army authorities have been obliged to resort to the very extraordinary expedient of advertising for civilians to act as Assistant-Surgeons, to whom appointments for home service are offered without examination. That further, for the same reason, it has been proposed by the Secretary of State for India to abandon Competitive Examination in the case of army Medical officers for the Indian service, and to return to what would be equivalent to the old system of patronage. That a due regard to the health of our brave soldiers demands that they should be protected from incompetent Medical attendants, and that in that important view a state of matters so unsatisfactory should be put an end to. That various reasons have been stated why the service should be at the present time so unpopular; such, for example, as that the excellent warrant of 1858, which gave so much satisfaction when it was originally issued, has not been carried out as it ought to have been; that its operation has not been extended to India, as was due to Indian Medical officers; that Medical officers, in consequence of the deficiency in their numbers, have a difficulty in getting leave of absence, have an undue share of foreign service, and are very slowly promoted. That, moreover, they are slighted as regards rank, have degrading duties unnecessarily imposed upon them, and, as regards pay and arrangements as to retiring pension, are not remunerated as is due to men belonging to a liberal and scientific Profession—qualifications in which can be attained only after long years of study, and at great cost. That the College refrain from giving an opinion as to the relevancy of these alleged causes, believing, as they do, that the only satisfactory means of ascertaining the real causes and amount of the evil, and of applying the proper remedies, is the appointment of a Royal Commission to inquire into and report regarding the whole matter. That this College would therefore respectfully, but earnestly, petition your Lordship to advise her Majesty to issue a Commission, constituted of men of weight and impartiality, in whose judgment confidence may be reposed by all concerned, and especially by the public, who are so deeply interested in the issue.—In name and by authority of the Royal College of Surgeons, BENJAMIN BELL, President. Edinburgh, 4th August, 1864."

EFFECT OF MUSIC ON THE INSANE.—M. Evrat, the Medical Director of the St. Robert Asylum in Dauphiny, recently got one of the celebrated musical bodies, known as the *Orphéonistes*, that of Grenoble, to visit his establishment; and they were not a little surprised at being saluted on their arrival by a chorus sung by the lunatics themselves, exhibiting the touching spectacle of men deprived of reason exhibiting in

their singing that order and regularity which had no existence as regarded their ideas. The choruses of the *Orphéonistes* excited a marked effect upon the poor lunatics, emotion, surprise, and admiration temporarily suspending their delusions to such a point that they seemed completely reasonable. The order of the proceedings was not interrupted for an instant.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. Jeffrey's observations have been received, and will be inserted.

Mr. J. F. Stansfield.—Royle and Headland on "Materia Medica" will be published in October next.

Dr. Fair.—Mr. Z. Laurence's next lecture on the Eye is in type, and will appear in an early number.

A Dispenser.—He can call himself Physician and Surgeon. If registered, he can practise.

A Subscriber.—1. If registered, he can practise, but there is a doubt whether he could recover in *Medical* cases. 2. One Act of Parliament does not repeal another, but we think it most improbable that the Apothecaries' Company would proceed against a registered Practitioner.

New Remedy in Hydrophobia.—A correspondent calls our attention to the reported virtues of the *Spirea Ulmaria* in hydrophobia. Several cases are said to have recovered under the use of this plant in Russia.

Our report of the last meeting of the Obstetrical Society is postponed in consequence of the amount of our space occupied by the meeting of the British Medical Association.

The following additional donations have been received by the Publisher of the *Medical Times and Gazette* for the widow and daughters of the late Mr. Walker, of Crick, near Rugby:—Mr. G. Bullen, Sen., Ipswich, £1; X., 7*s.* 6*d.*

Errata.—In the number for August 13, p. 169, first col., line 50, *for* "it organised," *read* "if organised;" p. 175, in the Greek quotation in Dr. Humphry's Address, *for* "*ανηρ*," *read* "*ανηρ;*" *for* "*ανδρωυ*," *read* "*ανδρων.*"

Physic Afloat.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—As a Medical officer in the public service, I beg you will accept my very sincere thanks for the leading article in the last number of your journal under the above heading. It is high time, as you justly observe, "that public attention should be directed to the position of the Medical officers of the navy;" and as no amelioration of the condition of the army Medical officers can take place without the grievances of their *confréres* of the navy being redressed at the same time, it is sound policy to proclaim at once to the public the extent of the evil which the present system entails upon the public services of the country.

That our sailors and soldiers are entitled to the very best Medical talent that can be procured, and that, owing to breaches of faith on the part of the governing bodies of the two services, a sufficiency of eligible candidates cannot be obtained, are facts now generally admitted. The liberal Warrants by which a Tory Government redressed the many and long-standing grievances of naval and military Medical officers were rendered comparatively valueless by the subsequent illiberal acts of a *soi disant* Liberal Government. The remembrance of these things caused me to dwell with pleasurs upon the concluding paragraph of your leader, and to wish with all my heart that the members of the Profession in civil life would be guided by the advice you give them. They may rest assured that, to use your own words, "the position of army and naval Medical officers is a matter which affects most closely the interests of the Profession at home," and that "the public estimation of Medical skill and character is influenced and reflected by the *status* of Government Medical officers." They may be equally well assured that if a sufficient number of candidates can be got by hook or by crook, no improvement will be effected by the present occupants of office without the organisation and the unanimity you recommend. But if the members of the Profession will bring their influence to bear in this direction at the forthcoming election, no Government, as you observe, "in the present nearly balanced state of political parties, will disregard their wishes, or any longer refuse to redress the grievances of naval and military Medical officers." We had proof of the power of the civil element of the Profession some years ago when the Admiralty contemplated taking a retrograde step with regard to the Medical officers of the navy. Admiral Deans Dundas was Senior Naval Lord and M.P. for Greenwich at that time; and it having been intimated to him that the North Kent Medical Association would take serious notice of any act of the kind, the intention was abandoned.

I have long desired to see our Medical Societies season their Professional operations with a little politics, and, observing with pleasure that the British Medical Association and others are moving in this direction, I would be glad now to hear that our Kentish friends had whispered a gentle admonition into the ear of Lord Clarence Paget; or knowing that the Tories are honestly disposed to do us justice, I candidly confess that I should like to see the vote and influence of every member of the Profession given to ensure their return to office. If General Peel had been in office we should never have heard the absurd reason lately assigned to justify the order directing Medical officers to superintend the branding of soldiers. Our common sense would not have been insulted by being told from Royal lips that there could be nothing derogatory in the duty, because sailors tattooed themselves. But let us be grateful for small mercies. On the same occasion his Royal Highness admitted that "Medical officers were in some measure combatant officers." Let the admission be noted, for on a full and complete acknowledgment of the combatant position rests our hopes of success. To break through the aristocratic exclusiveness which is fostered more by a Liberal than a Tory Government to the prejudice of Medical officers, it is necessary that his Royal Highness should be compelled to admit that Medical officers are not only almost, but altogether combatant officers; that they suffer from the chances of war in a greater proportion than, and are entitled to all the honours and privileges of, the most favoured classes. I am, &c.

London, August 15. Chirurgeon.

The Griffin Testimonial Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The following subscriptions have been further received on behalf of the above fund:—

Messrs. Clarke and Elliott, Lynton, 10s.; Ed. Hall, Esq., Ulverstone, 10s.; Geo. Bulmer, Esq., Leeds, 10s.; W. A. Burr, Esq., Slough, 10s. 6d.; Thos. Robinson, Esq., Cheadle, 2s. 6d.; Joseph Toynbee, Esq., Saville-row, £1 1s.; Francis Davies, Esq., Pershore, £1 1s.; Dr. A. T. Brett, Watford, 10s. 6d.; G. Harday, Esq., Rugby, 5s. Amount previously announced, £48 3s. Received at the *Lancet* office, £3 11s.

I am, &c. Robert Fowler, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, August 17, 1864.

The Subscription for the Family of the Late Edgar Bull, Esq.

The Rev. H. Bromfield will feel sincerely obliged if the Editor of the *Medical Times and Gazette* will kindly allow the enclosed to appear in the Correspondence of his valuable paper. The Rev. H. Bromfield gratefully acknowledges the receipt of the following donations for the widow and children of the late Edgar Bull, Esq., Surgeon, of Blockley, and earnestly solicits further assistance:—

Ed. Hier Evans, Esq., Monmouth, 2s. 6d.; A Friend, Paris, 2s. 11d.; Dr. Pritchard, Abington Abbey, £3 3s.; W. Percival, Esq., Northampton 10s. 6d.; Dr. Ramsay, Portman-square, £1 1s.; Mrs. Spencer Thompson, Grangewood Lodge, 5s.; Dr. Dale, Bayswater, 5s.; Edwin Bartleet, Esq., Chipping Campden, £1 1s.; From "Shaw," Oldham, 10s.; Dr. Hildige, Dublin, £1; Dr. Bull, Hereford, £1 1s.; Dr. Hunter Finlay, Glasgow, 2s. 6d.; B. Brooks, Esq., London, 5s.; Admiral Collier, C.B., Blockley, £1; Thomas N. Kendall, Esq., King's Lynn, 10s.; Dr. Jeffreson, London, £1 1s.; Dr. Oldham, London, £1 1s.; Dr. Herbert Davis, London, £1 1s.; Dr. Risdon Bennett, London, £1 1s.; Peter Gowland, Esq., London, £1 1s.; John Hilton, Esq., London, £1 1s.; J. L——, Esq., London, £1 1s.; Dr. Daldy, London, £1 1s.; Drs. Sewell and Crosby, London, £1 1s.; Dr. Sparke, London, £1 1s.; Cambria, Boston, 10s.; D. F. Stevens, Esq., St. Ives, 10s.; C. F. G. and J. M., 5s.; T. T. Nason, Esq., M.B., Stratford-on-Avon, £1 1s.; P. E., Berkhampstead, £2.

Blockley Vicarage, Moreton-in-Marsh, August 8.

COMMUNICATIONS have been received from—

The Director-General of the Army Medical Department; Apothecaries' Hall; L.R.C.P. Lond.; Mr. James Robertson; A Subscriber; Dr. W. Stuart Munro; Mr. Sands Cox; F.R.C.S. Eng. (Exam.); The "City Press;" A Dispenser; Chirurgeon; Dr. Robert Fowler.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 13, 1864.

BIRTHS.

Births of Boys, 1014; Girls, 948; Total, 1962.
Average of 10 corresponding weeks, 1854-63, 1665·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	733	700	1433
Average of the ten years 1854-63	632·8	611·3	1244·1
Average corrected to increased population..	..	..	1368
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa
West ..	463,388	1	7	3	..	2	3	31
North ..	618,210	1	4	11	2	3	15	37
Central ..	378,058	..	13	11	3	..	4	34
East ..	571,158	..	42	11	3	15	19	67
South ..	773,175	4	6	10	..	17	19	59
Total ..	2,803,989	6	72	46	8	37	60	228

APPOINTMENTS FOR THE WEEK.

August 20. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

22. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

23. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

24. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

25. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

26. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

DINNEFORD AND CO., PHARMACEUTICAL CHEMISTS,

Respectfully refer the Medical Profession to their highly effective preparations :—

SYRUPUS SENNÆ, SUCCUS TARAXACI, AND EXTRACTUM SARZÆ LIQUIDUM

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172, NEW BOND-STREET, LONDON.

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See Pharmaceutical Journal of May 1, 1856.

Sold Wholesale in Stamped Boxes of 14 lbs. each, by the following London Druggists :—

Messrs. Baiss, Brothers, and Co.	Messrs. Drew, Barron, and Co.	Messrs. Hodgkinson, Luckombe, and King.
,, Barron, Harvey, and Co.	,, Evans, Lescher, and Evans.	,, Hodgkinsons, Tonge, and Stead.
,, Burgoyne and Burbidges.	,, Samuel Foulger and Sons.	,, Langtons, Scott, and Co.
,, Cox, Gould, and Co.	,, Hearon, McCulloch, and Squire.	,, Preston and Sons.
,, Geo. Curling and Co.	,, Herrings and Co.	

Pulvis Jacobi ver, Newbery,

FRAS. NEWBERY & SONS, 45, ST. PAUL'S CHURCHYARD.

Prices for Dispensing, 1 oz., 9s.; $\frac{1}{4}$ oz., 3s. 4d.

QUINÆ NEUTRAL PURIF. (SOLUTION.)

This preparation possesses all the active Alkaloids of Yellow Cinchona Bark, as Quinine, Quinidine, Cinchonine, &c., combined with its natural Kinic and other Acids, without the useless Gum, Starch, and woody matter. For the convenience of dispensing, and for the preservation of its active ingredients, as well as for the economy of its production, it is prepared in a liquid form, five minims being equivalent to one grain of sulphate of quinine.

Prepared by HERRINGS and CO., Wholesale Druggists, 40, Aldersgate-street, E.C., London.

NATURAL MINERAL WATERS OF VICHY,

Efficacious in Stomach, Liver, and Renal Diseases; Gout, Rheumatism, Diabetes, &c.

Also, the celebrated OREZZA MINERAL WATER, containing Iron, and which is extensively prescribed as an invaluable Tonic.

VICHY PASTILLES, the best Digestive Lozenges; and VICHY SALTS for Baths. Also, other French and German Natural Mineral Waters.

VICHY WATERS COMPANY (only Depôt in Great Britain), 27, MARGARET-STREET, REGENT-STREET, LONDON, W.

BARTH'S OXYGEN WATER holds free Oxygen in solution. It gently stimulates the functional action of the stomach and secretory organs, and is a very useful beverage. Wentworth Scott's Analysis gives as contents of a bottle—"Nearly half an imperial pint of pure distilled water, and about 13·5 cubic inches, or 4·6 grains of gaseous oxygen; equivalent to that contained in 21·4 grains of chlorate of potash." 4s. per dozen.

OXYGENATED WATER COMPANY (LIMITED), 36, LONG-ACRE.

T. Morson and Son are enabled to offer Pepsine (or Poudre Nutrimentitive) guaranteed to answer the test adopted by the Imperial Commission for the preparation of the new French Codex, as follows :—Mix 20 grains of Pepsine with 1 oz. of water, acidulated with 2 drops of Hydrochloric Acid, and add 120 grains of Fibrine deprived of water by pressure between bibulous paper or folds of calico. After a lapse of some hours, the Fibrine should be partly in a state of pulp suspended at the bottom of the vessel. On filtering the syrupy solution, if the liquid gives no precipitate with 2 drops of Nitric Acid, the digestion may be considered efficient, and the Pepsine pure. During the operation a heat of 120° Fahr. should be maintained, but not exceeded.

PEPSINA PORCI. PEPSINE WINE.

19 and 46, Southampton-row, Russell-square.

Agents :—DREW, HAYWARD, and BARRON; GALE and CO.; HODGKINSON, TONGE, and STEAD; B. YATES and CO..

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ORTHOPÆDIC AND ANATOMICAL MECHANISM.

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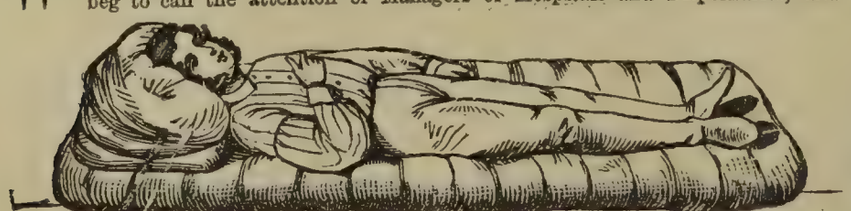
Manufacturer of Orthopædic and Anatomical Appliances, Surgical Instruments, Elastic Bandages, &c., &c.,

By Appointment to the National Orthopædic Hospital,

19, CALTHORPE-STREET, LONDON, W.C.; and at the CRYSTAL PALACE.

Of numerous Orthopædic Instruments.

WATER BEDS.—EDMISTON & SON, 5, Charing-cross (late 69, Strand), beg to call the attention of Managers of Hospitals and Dispensaries, and the Profession generally, to the price and quality of their Hot or Cold Water Beds.



Water Beds can be had on hire. Terms, 7s. per week.

WATER BEDS, £4 14s. 6d. to £10 10s.

Water Cushions, all sizes, from 7s. 6d. to 30s. Cotton Elastic Stockings, 3s. 6d.; Silk, 5s. 3d. Knee Caps, Leggings, Anklets, &c. Day and Night Urinals, from 5s. 6d. to 21s. Injection Bottles, Bed Sheets, Accouchement Belts, &c. India-rubber Chambers for Lunatic Asylums.

LONDON : EDMISTON & SON, THE POCKET SIPHONIA DEPOT, 5, CHARING-CROSS, W.C.

ORIGINAL LECTURES.

COURSE OF
LECTURES
ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D., F.R.C.P.,
Professor in University College, and Assistant-Physician to University College Hospital.

Lecture VI.

UROHÆMATIN, AND THE ABNORMAL PIGMENTS MET WITH IN WHITE, YELLOW, GREEN, BLUE, AND BLACK URINE—THEIR CLINICAL SIGNIFICANCE AND TREATMENT.

UROHÆMATIN, the substance which gives to healthy urine its peculiar tint, is of more importance to the Clinical Physician than the majority of urinary ingredients, for the quantity passed in the twenty-four hours is not only an index to the tear and wear of the tissues, but the best measure we at present possess of the rapidity with which man burns life's lamp. The amount of all the ingredients of the urine we have hitherto considered are much more under the influence of the diet than that of urohæmatin, the quantity of which may be said to be a tolerably exact measure of the destruction of blood corpuscles.

CHEMISTRY.

Until the last ten or twelve years little was known regarding the nature of the colouring matter of the urine, and that little was unfortunately erroneous. Cruickshanks, Vauquelin, and Chevreul regarded it as a coloured acid; Vogel thought it was uric acid, and Prout looked upon it as murexid. Golding Bird, however, pointed out Prout's error by showing that while hydrochloric acid destroys the colour of murexid it increases that of the urine. Berzelius also saw Prout's mistake, from urohæmatin being soluble in alcohol while murexid is not. Heller it was who made the first step in the right direction by studying the effects of acids on different urines, and thereby obtaining a variety of colours, which he believed to be due to a substance which he called uroxanthin. This uroxanthin Heller thought consisted of two colouring matters, urrhodin, a red, and uroglaucin, a blue pigment, none of which was he, however, able to separate from the urine. The second step in the right direction was made by Scherer, who was the first that succeeded in isolating anything like the colouring matter of the urine. The substance that Scherer extracted was a brown powder, so closely allied in composition to the colouring matter of the blood that he thought it might be derived from it.

	Urohæmatin.	Blood hæmatin.
C . .	58·43	70·49
H . .	5·16	5·76
N . .	8·83	11·16
O . .	27·58	12·59

The next step was made by myself in 1851, when, for the first time, it was found possible to extract from human urine its colouring matter in a perfectly pure form. At the same time I made the interesting discovery that not only does the colouring matter of the urine closely resemble the hæmatin of the blood in its appearance, and its properties; but, that it even possesses the additional similarity of containing iron, a substance which till then had never been detected in normal urine. At first this discovery was received by Scherer, and some others with scepticism, but now even Scherer acknowledges its truth, so that it is unnecessary longer to treat it as a matter of doubt.

Seeing that the colouring matter of the urine so closely resembled the colouring matter of the blood as no longer to leave a shadow of doubt that the one is the direct derivative of the other, it was deemed advisable to name it Urohæmatin, a name which at once met with the approbation of Scherer and others who were equally with myself interested in the subject.

Properties.—Urohæmatin is a bright red, non-crystallisable, organic compound. When freshly prepared it somewhat resembles in appearance dark red sealing wax, and is sufficiently soft to receive the impress of the nail. After a time it becomes hard, and somewhat brittle, breaking with a glistening fracture, but never losing its fine red tint, at least, not after twelve years' exposure to the air. Urohæmatin is highly soluble in chloroform, alcohol, and ether, and gives to those liquids a rich, transparent, port wine colour, varying in depth according to the quantity dissolved. It is likewise soluble in fresh urine, and gives to that liquid not a bright red tint, but the tint of normal, healthy, high-coloured urine, the depth of colour being in direct proportion to the quantity of colouring-matter added. Urohæmatin is, however, insoluble in pure water, and even in solutions of either chloride of sodium or chloride of barium. It is also quite insoluble in sulphuric, nitric, and hydrochloric acids, even the strongest; but soluble in the caustic alkalies of ammonia, soda, and potash. In solutions of tartaric and oxalic acids, urohæmatin is quite insoluble.

In all the above-mentioned characters it bears a close resemblance to the colouring matter of the blood—hæmatin—the similarity in the two substances being made still more striking by the fact, already mentioned, of urohæmatin containing iron. The existence of which is readily demonstrated by burning a small quantity of urohæmatin on a spatula, and dissolving the ash in a weak solution of hydrochloric acid, and testing it with the ordinary reagents. The addition of a drop or two of sulpho-cyanide of potassium gives rise to a fine red colour, while the addition of a similar quantity of ferrocyanide of potassium gives a precipitate of Prussian blue, thereby establishing the presence of iron. If any one still doubts the existence of iron in healthy human urine, it is sufficient to test the ashes of any urinary residue as above described in order to dispel the doubt.

Preparation.—Urohæmatin may be obtained from urine in a pure state in several ways:—1st. By evaporating a large quantity of urine until it becomes of the consistence of treacle, taking care to remove the chloride of sodium and other salts as they crystallise. The colouring matter is extracted from this molasses like syrup by means of alcohol. The deeply-tinged alcoholic extract is now boiled and treated with slaked lime until it is completely decolorised; it is then filtered, and the compound of lime and colouring matter well washed with water, and afterwards with ether, to free it from fat, of which there is invariably a considerable quantity in human urine. The lime compound when dry is decomposed by hydrochloric acid, and the liberated colouring matter extracted with boiling alcohol. The alcoholic solution is now mixed with an equal portion of ether, and, after being frequently shaken, allowed to stand a day or two, in order that the ether may dissolve as much as possible of the pigment. On the addition of water, the ether charged with the colouring matter separates, and is decanted. This etherial solution after evaporation is treated with chloroform, which removes the colouring matter from the animal resin to which it tenaciously adheres; and on evaporation the chloroform deposits the pure urohæmatin. When burned, urohæmatin leaves a small quantity of ash, consisting solely of the oxide of iron.

2. Scherer's process as modified by me is equally successful, but, unfortunately, also equally troublesome. It is as follows:—Precipitate the phosphates and sulphates from fresh urine by means of the nitrate of baryta. Decant, and to the clear liquid add basic and neutral acetate of lead until the urine is decolorised. Collect the lead compound, which contains the colouring matter, dry, and treat it with hydrochloric acid and alcohol, as in the lime process. The other steps are the same in both. For more minute details see the *Pharmaceutical Journal* for November, 1852, the *Würzburg Verhandl*, Bd. 5, 1854, and *Journ. f. Pract. Chemie*, Bd. 64, p. 264.

Lastly, an etherial solution may be obtained from urine without any previous manipulation at all, except adding strong nitric acid, and heating the mixture to set the colouring matter free, and then agitating it with a large quantity of ether. The ether dissolves the colouring matter, and floats on the surface of the urine. It is then decanted and evaporated to dryness, and the residue treated with chloroform until pure. The loss by this method is so great that it is seldom attempted, except for rough quantitative experiments.

Quantitative Analysis.—Unfortunately, there is as yet no method by which the quantity of urohæmatin excreted in the twenty-four hours can be exactly ascertained; I hope, however, soon to be able to publish one, founded on the volumetric estimation of the quantity of iron, as I believe that under normal circumstances almost the whole of the iron found in human urine comes in the form of urohæmatin from the blood corpuscles. Until then, it may be as well, at least for clinical purposes, to adopt the plan I daily follow, namely, of diluting the twenty-four hours' urine with water till it measures sixty ounces (if the quantity is above sixty ounces

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—ED. *Med. Times and Gaz.*

it is to be concentrated), and then adding to about two drachms of it in a test tube half a drachm of pure nitric acid, and allowing the mixture to stand for some minutes. If the quantity of urohæmatin is normal, the mixture will alter but slightly in tint; whereas if there be an excess it will become pink, red, crimson, or purple, according to the amount present. Heating the mixture hastens the change in colour; but it is better to do the experiment in the cold, and if necessary allow plenty of time for the change to take place.

The object of adding the acid is to set the colouring matter free, for without doing so we are no more able to tell how much urohæmatin is present in the urine than to tell how much iodide of potassium is dissolved in water. A pale urine often contains a large amount of urohæmatin; while, on the other hand, a high-coloured urine frequently contains very little; so that the addition of acid is essential. It is not necessary to use nitric acid; sulphuric or hydrochloric acid answers the same purpose, only with them the colour is somewhat different. Now, just as the quantity of iodide of potassium present in a glass of water may be roughly guessed at by the quantity of iodine set free on the addition of nitric acid, so may the amount of urohæmatin present in the urine be guessed at by the depth of colour produced on the addition of nitric acid.

In studying the different shades of pigment found in the urine, the best scale to consult is that designed by Professor Vogel, which forms Plate VI. of Neubauer and Vogel's work, translated by Markham for the New Sydenham Society.

Physiology.

Urohæmatin is without doubt an organic substance belonging to the same class as albumen, fibrin, and casein. It differs from these substances, however, in so far as it can be extracted from the urine in the same state as it exists in that liquid; whereas neither albumen, fibrin, nor casein can be obtained separately in the same condition as they exist in the body.

Urohæmatin being normally excreted by the kidneys, like all other similar products, its quantity fluctuates with the state of the health—the ebb and flow, as it were, of life. In chemical composition we saw that it closely resembles the colouring matter of the blood—so closely, indeed, as to have given rise to the idea that the one is the direct product of the other. Now, as is well known, the colouring matter of the blood, which is treasured up in the red corpuscles, from its wide distribution, and unvarying composition, is supposed to play a most essential part in the processes of life.

A blood corpuscle cannot, of course, be expected to last for ever. Its career is as defined as the career of the individual to whom it belongs. It is born, it grows, it performs the functions for which it was called into existence, it dies, and is removed, and others take its place. With every respiratory act, with every pulsation of the heart, thousands of blood corpuscles are destroyed, and thousands reappear. And although it is difficult to say what may be the exact term of life of a blood corpuscle, yet we know that even at most its span can be little more than a few months.

When we inject the blood of an animal with oval corpuscles (a fowl) into the vessels of one with round corpuscles (a dog) we find that before three weeks have passed away all the oval cells have disappeared. It is true that in this case we have, as it were, placed them under abnormal conditions; but if we make allowance for that, and read months instead of weeks, we still cannot spin out the life of a blood corpuscle to more than a quarter of a year; and few will even be inclined to give to it so much as that.

Taking it for granted, then, that blood corpuscles die, and that their *débris* is removed from the circulation; if urohæmatin be regarded as the *débris*, or the product of the colouring matter of the red blood corpuscles, it is evident that the amount of urohæmatin present in the urine, supposing it all to be eliminated by that channel, must, to some extent, afford us an idea of the daily destruction of blood corpuscles. Pathology, as we shall presently see, gives additional support to this theory; meanwhile, however, I must mention that all the colouring matter found in the urine does not come from the above-named source. A small quantity comes directly from the food; a vegetable diet furnishing the greatest quantity, animal food yielding scarcely any. This is easily explained from the well-known fact that almost all vegetables are much richer in colouring matter than the flesh of animals slaughtered by bleeding, as is the case with the majority of those used for domestic purposes. In fact, the respective influence of a vegetable, and an animal diet on the urohæmatin is well illustrated by the amount found in herbivorous and carnivorous animals' urine. It will be recollected that, in the first lecture, I pointed out the striking difference presented by these urines; the former being of a very dark, the latter of a very pale colour, while man's stands between the two.

There is still another source from which comes a yet smaller quantity of the normal colouring matter of the urine—namely, the reabsorbed effete pigment of the bile—urobiliverdin. The amount of this in healthy urine is, however, so insignificant as scarcely to merit even this passing notice. In disease, on the other hand—jaundice, for example—it is occasionally enormous, far outweighing that of the urohæmatin.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CLINICAL NOTES AND OBSERVATIONS.

CONTRACTION OF THE FINGERS THE RESULT OF CHRONIC RHEUMATIC AFFECTION.

By F. A. BULLEY, F.R.C.S.,

Senior Surgeon to the Royal Berkshire Hospital, Reading.

I have recently had an opportunity of observing another case of contraction of the fingers, similar in many respects to the one which I related a few weeks ago in the pages of this journal. Like that case, it had apparently been the result of an old standing rheumatic affection of the knuckle-joints, followed by gradual condensation of the palmar fascia, but had not, however, gone on to the production of that tense projecting band of thickened tissue, which had confined the ring finger permanently flexed in the hand, and rendered it almost useless, in the other case. I should also mention that for the last few years the patient had not been troubled with rheumatic disease, at least, in the metacarpo-phalangæal joints; so that the contraction was comparatively in a passive state, and had been so in fact for some time, and had even lately become improved under some simple treatment which he had himself adopted for its relief.

Case.—Mr. R., aged 64, who had formerly been a master plasterer, and consequently much exposed to vicissitudes of weather, consulted me respecting a contraction of the fingers of both hands, which he said he first noticed about sixteen or seventeen years ago. He had been subject previous to the commencement of the contraction to frequent attacks of rheumatism, which had particularly affected the knuckle-joints, in which the pain had at times been very severe. He had never felt any considerable pain in the hardened fascia itself. The integument and underlying parts of the palms of both hands have become converted into a dense brawny, inelastic substance, with an irregular, deeply-fissured surface, but there is no appearance of the projecting band of densified tissue more immediately contracting the ring finger, which is frequently observed in such cases, so that the fingers are all equally contracted. The least forcible attempt to extend them causes intolerable pain in the knuckle-joints. He has never been subject to any particular manual labour; has never suffered any inflammation of the palmar fascia, and can assign no cause for his infirmity beyond the rheumatic one I have mentioned. He attributes his present comparative immunity from pain in the joints, as well as some little improvement in the power of extending his fingers, to the use of a remedy which he accidentally discovered while cleaning and preserving his modelling tools; this was daily bathing the hands in a hot strong solution of common crystallised soda, and afterwards in friction with palm oil over the hardened surface. Finding that the parts appeared to become more supple and painless after using these materials in his work, he began to employ them methodically, and has continued the application now for some time, with the evident effect of at least preventing the increase of the contraction.

I have not thought it desirable to recommend an operation in this case, because, differing from the former one, there was no projecting bridge of thickened fascia contracting any particular finger to be divided, and as I felt satisfied that a general division of the thickened tissues might probably increase the contraction on the cicatrisation of the wound, I have merely suggested that he should continue the simple remedies he has been using.

Remarks.—A variety of opinions have been entertained by different authorities in respect to the nature and treatment of

this curious affection. Baron Dupuytren having had an opportunity of making a careful dissection of the parts concerned in the disease, came to the conclusion that the contraction was occasioned almost entirely by changes occurring in the palmar fascia, more particularly in those prolongations of it which extend to the sides of the fingers, and that these changes were brought about by a process of gradual hardening, accompanied by inflammation, in consequence of pressure, in persons who had been exposed to manual labour of any kind. Prior to this period, the disease was considered by many to exist in the flexor tendons, and could only be cured by their section; but the frequent failure of these operations, and their occasional dangerous consequences, led to the discontinuance of this mode of treating the disease and the substitution of the more simple and safe one of dividing the prominent bands of contracted fascia only, leaving the tendons and their sheaths as much as possible untouched by the operation.

It was the opinion of Sir Astley Cooper that this peculiar contraction was altogether incurable by operation, and this opinion has been endorsed by several eminent Surgical authorities, doubtless founded on the fact that from the fixed and permanent rigidity of the knuckle-joints which is found to prevail in these cases, and may exist either as the cause or effect of the contraction, it is mechanically impossible to extend the fingers after any kind of operation beyond a certain limited extent, and this would seem to be the case generally in instances of long standing, if we may judge from the observations of Professor Fergusson, who, when speaking of this disease, remarks:—"I have observed in the dissecting-room that in cases of old standing, when all the textures were removed, with the exception of the ligaments, the fingers could not even then be stretched out without some force, and that they immediately afterwards, unless where the ligaments were torn, resumed their crooked position."

SURGICAL CASES.—WOUNDS INTO LARGE JOINTS.

By WM. STUART MONRO, M.D.,
Surgeon to the West Hartlepool Iron Rolling Mills and Iron Ship Yard, &c.

Out of a large Surgical practice I select the two following cases of severe wounds penetrating into large joints, which I think are sufficient proofs of what may be accomplished in saving limbs, though in the case of a working man I am decidedly of opinion that it would be preferable had amputation of the leg been at once performed in the latter case:—

John Harrison, aged 33, a labourer on this railway, of temperate habits and previous excellent health, when at Coxhoe on duty on the 16th April, 1862, fell off a waggon when in slow motion, and a part of the wheel coming in contact with the left elbow broke the humerus into several pieces in the joint, and also the same bone at about an inch above this articulation, where it projected through a hole in the integuments. The olecranon process was also detached from the ulna, and a small hole over it was in the skin; the radius also was broken in its upper third, and there was a small hole over the external condyle opening directly into the joint.

The accident happened about 12 noon, and he had to be removed hither, a distance of 35 miles, before any surgical assistance could be procured. During this journey, which occupied three and a-half hours, he lost a very large quantity of blood.

On his arrival a Surgeon was in immediate attendance, and called in another Medical gentleman, when it was decided that the arm must come off. To this, however, the man and his friends objected, and when I was called in the case appeared so doubtful that I proposed to operate as if for excision of the joint, and remove all the broken pieces—there being no sign of any injury having been done to the ulnar nerve, and the pulse at the wrist was as good as could be expected after such a loss of blood.

I saw no more of the case until the 18th, when I was again called in to meet Mr. Foss, of Stockton. The arm was now much swelled and discoloured, and the pulse at the wrist much smaller and weaker than at the other arm, and evidently labouring to overcome the increased local pressure on its circulation. It was now deemed too late to excise, and every means were at once adopted to save the arm.

April 19.—Bowels freely opened; tongue slightly furred; pulse smaller and weaker in the injured than in the other arm; swelling and discoloration a little increased since yesterday; considerable anxiety in countenance; did not sleep well last night; feels very weak. Is ordered beef tea and a little wine.

20th.—Slept very badly, which he ascribes partly to the position (on his back) in which he was compelled to lie since the accident, and partly to the close bed (one in a wall) to which he is confined. His countenance is very anxious, his arm more swelled and discoloured than it was yesterday, and its pulse very weak, evidently approaching stagnation. Ordered to get six leeches applied immediately to the front of the arm and to diminish the quantity of wine during the day.

Vesper, 20th.—Leeches bled well, gave great relief, reduced the swelling and a little of the discoloration. Have lifted him out of bed, placed the arm in an open case, and made him comfortable for the night in a large chair.

21st.—Swelling still troublesome, but he is now in much better spirits. Slept a little last nighr, and is considerably refreshed. Pulse at the wrist of injured arm still much smaller and weaker than at the other.

22nd.—Have had to reapply the leeches, the discoloration having increased so much as to create alarm. The swelling, however, is not so great as on the 20th, and he is in excellent spirits.

25th.—All has gone right since last report. He is now placed on generous diet, sleeps well, is in good spirits, and has the arm, which is placed firmly in the supine position in a wooden case and suspended by a sling from the neck, dressed morning and evening with large plasters of strong turpentine liniment. The wound where the humerus projected through the skin is nearly well, and the other two have coalesced into one. When dressing, the cartilage on the ends of the humerus and radius can be distinctly seen and synovia running out of joint.

May 2.—Everything has gone on well since last report. Upper wound completely healed and the other one contracting gradually, though when passive motion is practised in the joint the radius can be seen to move freely on the humerus. The turpentine dressing gives him no pain, and he is now allowed to go out.

20th.—He is now able to attend at the surgery; wound into joint healed; there are signs as if small portions of the olecranon would come away.

September 6.—Has now been at work as a gate-keeper on a railway crossing for a month. He is gradually recovering the use of his arm in the motions of flexion and extension, but those of pronation and supination are almost entirely gone. He has no pain in the joint, and his general health is excellent.

August 15, 1864.— Since last report several small pieces of bone came away from the olecranon, but none within the last nine months. Has now a very useful arm, and is in the very best of health.

James M., aged 45, a healthy and sober man, of a spare habit of body, and by trade a rigger in the iron ship yard here, when at work aloft on December 30, 1863, lost his footing, and made a spring to save himself, landing on the ground on his feet after falling nearly ten yards.

When carried home he was found to have merely sprained his right ankle, but to have nearly completely smashed the astragalus and broken the tibia and fibula in the left leg within about one inch of the ankle-joint.

He would not hear of amputation, so an effort was made to save the limb by placing it comfortably and firmly in McIntyre's splint; his diet was ordered to be liberal, and as all the functions of the body were properly carried on, no general treatment was adopted.

January 25.—As he has been complaining of sharp pain in the outer ankle for a few days past, the bandages and splint were removed, exposing considerable inflammation and threatened sloughing at the seat of pain. Poultices were ordered to be applied.

27th.—A large slough came away last night, leaving an opening into the joint about the size of a walnut, and about two inches of the fibula (now united) exposed and quite bare. Treatment ordered to consist of good support, stimulants, and turpentine liniment dressings.

June 14.—The wound has been gradually healing under the treatment, but there is about half an inch of the fibula remaining uncovered, and a small aperture on the dorsum of the foot, through which a probe detects the roughened surface of the astragalus.

July 15.—The exposed piece of fibula, weighing one and a-half scruple, has come away, but a little thick pus still escapes from the aperture on the dorsum of the foot.

August 15.—Not being able to support himself longer, he was compelled to apply to the Parochial Board for relief, and is now, I believe, an inmate of the Sunderland Infirmary, though before he removed thither he was able to bear the weight of his body, in the acts of standing and walking, on the injured limb.

West Hartlepool.

ACUTE ANEURISM OF AORTA.

By J. SMITH CHARTRES, M.A., L.R.C.S.I., L.S.A. Eng., L.K.Q.C.P.,
Surgeon, 100th Regt.

Private T., Commissariat Staff Corps, a delicate-looking man, of nervous lymphatic temperament, and "suspected" intemperate habits, but without discoverable syphilitic taint, was treated in the Hospital, 100th Regiment, at Gibraltar, from April 24 to May 25, 1863, for anomalous rheumatic pains in left supra-spinous fossa and shoulder, shooting down to the wrist; nervous dyspepsia; loss of energy, cheerfulness, flesh, irregular sleep, and health generally; he was irritable, discontented in mind, and altogether "out of sorts."

He was discharged, apparently well, on the latter of above dates, but on June 1 following he was attacked with cough and symptoms of ordinary catarrh; on the 8th he lost his voice; on the 12th he was again admitted; his cough was husky, irritative, paroxysmal; expectoration scanty, viscid, tenacious, and transparent; respiration unaffected except by exertion, then hurried from debility as it were; there was almost complete aphonia, and a return of the irregular shooting pains from his left shoulder down to the wrist; paler and thinner than before, easily fatigued, his appetite was capricious, and sleep fitful, disturbed by nightmare. Stethoscope revealed no signs of cardiac or pulmonic lesion.

The expression of his countenance, however, being peculiarly anxious, he was carefully observed daily; and on the 16th, four days after his admission, he complained, in addition, of peculiar shooting pain up along left neck and in his left eye, "as though it was about to dart out of its socket;" dysphagia, referable to top of sternum, constant. On carefully examining his throat, I thought I detected a difference in the pulsation of the carotids—viz., a feebleness on left side.

On the 19th there was relative dulness over left sterno-clavicular joint; tenderness on pressure there and beneath that clavicle, under its inner third; now also, for the first time, slight systolic prolongation and roughening were detected in former situation; perceptible increase of impulse to the hand; fulness of supra-clavicular space, but no difference as yet in the pulsations of the subclavian, brachial, or radial arteries as regarded their volume or force.

These phenomena were so far from being fully developed that, in consultation, my view of the case—viz., that it was an incipient aneurism of the arch of the aorta—was not supported, one opinion in particular having pronounced it solidification of the apex of left lung.

However, on July 1, a sort of "heaving impulse" of left sterno-clavicular articulation became visible on taking an intent side-glance view. The cough became more paroxysmal, ringing, and distressing; the aphonia more complete; the dysphagia more marked; the relative dulness on percussion more undoubted; and the difference in impulse between the carotids on the neck far better defined; besides, the pulse of left wrist was found to beat not so strongly as that of the right. By marking with ink a cross so × at corresponding points over each radial near the wrists, the one over that of the right was seen to be more strongly "lifted up" by the pulsating artery beneath, the action of which was visible on so spare a subject.

On July 2, intermittent hemicrania and pain in left neck was much complained of; also severe, sudden, darting shoots of pain on left side of spine near inferior angle of scapula, "as though a sharp sword was being run through him;" sharp lancinating pains down the "inside" of left arm, commencing at the sterno-clavicular joint and terminating just short of the fingers, depriving him of rest and sleep; the pulsation of right carotid very visible to the eye, on the head being thrown back; that of the left much more quiescent. A distant, but yet to my ear distinct, systolic bruit now became audible, and the case fairly diagnosed.

On July 18, a protrusion, convex anteriorly beneath the sternal third of clavicle, began to develope itself, throbbing, expanding, and tender to the touch. The recumbent posture aggravated the amount of impulse and pulsation, especially to the hand and to his own sensations, so much so as compel him to "sit up to lessen the movement." The cough now alone of all the symptoms abated somewhat. He complained of "fixed" pain in the back corresponding to fourth dorsal vertebra.

On July 21, *bruit de soufflet* was heard loudly on left side of spine along the margin of the scapula; more distinctly and feebly on opposite side; tumour more prominent and convex; most marked difference of pulsation to the eye, hand, and ear in the carotid, brachial, and radial arteries; he "cannot lie down," but sat up in the bed, body stooped forward, hands clasped round one knee flexed; head bowed, forehead resting upon the forefingers, thumbs perpendicular, pressing against each temple. Thus he slept most comfortably—a posture in which I often afterwards found him slumbering in the mornings after a very wretched night.

His bodily sufferings were now intense, his mental anguish greater, for at this time his dangerous condition was explained to him, but most tenderly, by the visiting chaplain; the disease advanced daily and rapidly, and on August 10, the tumour was found to be pushing forwards, absorbing the costal cartilage, and presenting externally a globular projection, occupying a space equal to the inner two-thirds of the clavicle, and underneath it, throbbing, expanding on its pulsations, tender to the touch, and apparently becoming quite superficial. A painfully loud systolic *bruit* heard in the situations before mentioned, and over a course tending downwards to base of heart in front, and behind on both sides of spine, as low as eighth dorsal vertebra, louder on left side. Cough not troublesome, but aphonia and dysphagia more pronounced; supra-clavicular fulness increased. There was a scarcely perceptible "thrill" in the carotid and radial of left side, whilst the right side of the neck used to "heave" with a laboured and excessive pulsation in marked contrast with the left, which was "silent" and at rest.

His sufferings were very acute from pains, his countenance being expressive of great agony, beads of perspiration bedewing his sallow, sunken, cadaverous face; he thus became gradually exhausted, could only rest in the sitting posture, to accommodate which I had constructed a contrivance of framework over his bed wherein to rest his head. Large and liberal anodynes, including "chlorodyne" in full doses, failed to afford him any but the most temporary relief.

On the 15th he was troubled by a husky paroxysmal cough, resulting on each occasion in a most urgent effort and desire to dislodge and expectorate some foreign irritant substance; there was loud wheezing on inspiration; expectoration was scanty, glairy mucus; the tumour had evidently encroached upon the bronchi; respiratory murmur throughout the lung was feeble when compared with that of opposite or right side.

On August 21, exhausted with his sufferings and a sense of the hopelessness of his condition, he died in a state of syncope at 7·40 o'clock p.m., the tumour having by no means advanced as far as the stage of rupture externally.

Sectio Cadaveris, Fifteen Hours after Death, performed, during my unavoidable absence, by my friend Staff Assistant-Surgeon Dr. Murray, and the following notes preserved:—On removing the sternum and cartilages of the ribs considerable absorption was found about the manubrium sterni and sternal end of first rib. The whole of thoracic viscera were then removed, together with tongue, œsophagus, and trachea; extensive adhesions of the pleura of left lung, and the sac of the aneurism was also adherent to the pleura and thoracic wall. On placing the lungs and heart *in situ* there was seen a very large aneurism, the size of an orange, on the transverse portion of the arch of aorta. On opening the sac it was found filled with a firm buff-coloured clot. The aneurism existed between the innominate artery and descending aorta, involving the origins of the left common carotid and subclavian arteries. Aortic valves of heart competent, but there was considerable enlargement of ascending arch and atheroma of lining membrane; lungs normal; remaining viscera healthy.

The case from its earliest commencement ran an unusually rapid course, and terminated far short of the bursting of the aneurism, in death by exhaustion, accelerated, no doubt, by the knowledge of the fatal nature of his disease.

It is to my mind a question in Medical ethics whether we are justified in permitting a patient in like circumstances to become acquainted with the nature of the malady until at least

a day or two before the closing scene. A friend interested in this case once remarked to me, "That poor man died in a great measure from funk."

The size and site of the tumour satisfactorily accounted for all the symptoms presented to our notice during life, with the exception that "the recumbent posture aggravated the amount of impulse and pulsation, especially to the hand and to his own sensations, so as to compel him to sit up to 'lessen the movement;'" and, indeed, in sitting up, the patient invariably leant rather forward, as though by that means to still the strokes, each one of which as it fell he felt to carry him still further on towards his inevitable doom. The treatment may be succinctly "summed up" in one word—"palliative."

Malta.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

BIRMINGHAM GENERAL HOSPITAL.

CASE OF POPLITEAL ANEURISM CURED BY COMPRESSION.

(Under the care of Mr. D. W. CROMPTON.)

[Communicated by Mr. C. J. Bracey, M.B. Lond., House-Surgeon to the Hospital.]

On April 22, 1864, a man, aged 34, was admitted into the General Hospital, under Mr. Crompton, having a popliteal aneurism on the right side.

History.—He had always enjoyed good health until he was 24, when he had an attack of rheumatic fever, and was ill for eighteen weeks. He had some difficulty of breathing at the time, but he could not tell whether his heart was thought to be affected. Since that time his health had been pretty good, and he had never had syphilis. Ever since the formation of the aneurism, however, he had been very badly off—in fact, almost starved. He was a glassblower, and had found the work very heavy, feeling a severe strain upon his legs as he stood and swung the hot glass around. About six months before his admission he noticed a firm pulsating tumour in the middle of the right ham. It was about the size of a pigeon's egg, and did not give him much pain. At the end of a month it began to increase rapidly, but did not prevent him from working for nearly two months, and even then he could walk, though with pain. He had, however, been unable to walk for about six weeks, and his leg had been much swollen and very painful. Rest and fomentations had given him some relief, but the tumour had continued to increase.

State on Admission.—He was rather tall, and very thin and haggard, having a sallow complexion, brown hair, and dark eyes. His pulse was very soft, about 80 in number, intermitting regularly, sometimes every third beat, sometimes not so often. The sounds of the heart were normal, but the first sound was not quite so distinct as in health. The aneurism filled the popliteal space, being separated from the calf by a distinct groove, but extending upwards without any clear limit, and measuring about eight inches vertically. It was limited externally by the outer hamstrings, but internally it wound round the femur, and formed a separate projection at the inner side of the thigh, divided from that in the popliteal space by the inner hamstrings. Its circumference at its widest part was nineteen and a quarter inches, that of the opposite thigh being fifteen inches at the corresponding part. It had a somewhat elastic feel, especially where most prominent, namely, in the middle of the popliteal space, and on the inner side of the thigh about three inches from the knee-joint. At these situations the skin was a little discoloured. A strong distensile pulsation could be felt in it, but most distinctly at the points just mentioned. A loud and harsh single bruit was audible over the whole surface of the aneurism, but was loudest in the middle of the popliteal space; it was synchronous with the impulse of the heart, and intermitted with it. The pulsation and bruit could be entirely arrested by pressure on the femoral artery, and were much diminished by strong flexion of the knee; the size of the aneurism, however, was scarcely at all affected by these means. The femoral artery had a firm feel, rolling under the finger; its pulsation had a vibrating character, and a rather loud bruit could be heard along its whole course, but most distinctly at the groin. The tibial vessels could not be felt. The right leg was rather larger than the left, being sixteen inches in girth round the calf, the left measuring only fourteen inches. It was soft and flabby, but not œdematous. There was no venous enlargement or discoloration about it. He lay towards his right side, with the knee somewhat bent: he could not straiten the leg completely. He had a good deal of pain in the sole of the foot shooting upwards from its inner side as far as the middle of the calf. He also felt pain in the inner side of the thigh, but more in the popliteal space. The foot and leg were rather colder than on the sound side (79° to 82°), but the temperature of the aneurism itself was greater than that of the opposite ham (90° to 88°).

Treatment by Flexion.—As the pulsation in the aneurism was greatly diminished by strong flexion of the knee, Mr. Crompton determined to try this plan of treatment. Accordingly on January 27 the leg was rolled in flannel, and the knee, being bent a little beyond a right angle, was so fixed by a bandage. As this was done merely with a view to accustom the patient to the position, but little pressure was made upon the aneurism; and no great effect was perceptible. Next day (January 28) the knee was flexed more forcibly and fixed by a ligature passing from the back of a slipper placed upon the foot to the loop of a spica bandage at the fold of the nates. The patient was laid upon his side, and the knee was raised a little from the bed by means of a pillow. In this way the pulsation was much diminished, though the bruit was unaltered. The ligature was tightened at night, and a sedative draught was given him. He did not, however, get much sleep, although the pain seemed not to be very great. Next day the pulsation was rather less forcible, and the patient (who was very intelligent) declared that at times it had been imperceptible. The slipper giving him pain by causing all the stress to fall upon the toes, a figure-of-eight bandage was substituted for it; and this was found to act well, and with comparative comfort. This plan of treatment was pursued for five days, the ligature being tightened from time to time until at length the heel was within three inches of the fold of the nates; a flannel bandage was also occasionally applied over the knee so as to compress the aneurism directly; but this caused so much pain that its application could not be long continued. During the time he took thirty minims of liquor opii sedatives every six hours if he needed it, and a mixture containing muriate of iron three times a-day. He was upon meat diet without any stimulant. He had some rest at night, though much disturbed by the painful position of the knee, and his face wore a very weary expression.

Effects of Flexion.—The pulsation in the aneurism was at times much diminished, and even occasionally absent; the bruit also was softer, and not so loud when the flexion was well maintained. At the end of the time, however, there was no real improvement in the part; the prominence in the ham was not so great, the circumference there being $17\frac{1}{4}$ inch as compared with $19\frac{1}{4}$ inch before treatment; but the upper part of the aneurism seemed larger in superficial extent, and its walls were evidently thinner. The skin here had a dark appearance, whilst that in the popliteal space was red, and marked in the centre by the discoloration of a commencing slough, about an inch in length.

Pressure by Tourniquet.—Flexion was now (February 2) discontinued, and the double clamp tourniquet applied to the femoral artery, the limb being laid on its outer side, and the knee semi-flexed and supported by pads. This was continued for five days, the position of the pressure being changed every three or four hours, and a small roller covered with lint being generally first placed over the artery. He took a sedative draught every night, and occasionally also in the daytime when in pain. His foot was quite warm, and his leg a little swollen. The artery being rigid, and the muscles and cellular tissue of the thigh very flabby, it was difficult to keep the vessel compressed, and any movement of the body displaced the pad; so that the artery was only held about half the time, taking it altogether, though even at other times the circulation was no doubt somewhat obstructed.

Its Effect.—At the end of the five days the aneurism did not seem to have undergone any alteration, and the patient was very weary; so the tourniquet was removed, and he had the enjoyment of a quiet night's rest. In the morning (February 7) the single clamp tourniquet was applied at the groin. This compressed the artery more easily; but it was difficult to keep it in place. This instrument was applied in various ways and at various situations during this day and the next, the double clamp and Salt's military tourniquet being also tried; but it was in the end found impossible to maintain continuous

pressure upon the artery without causing more pain than the patient could bear. Under these circumstances, and considering that the rigidity of the vessel and its jerking pulsation rendered the prospect of tieing it unsatisfactory, whilst the rapid separation going on around the slough in the ham showed that the sac would soon be laid open, digital pressure upon the femoral artery was at once resorted to.

Digital Pressure.—At half-past nine on the morning of February 9 this treatment was begun, the Surgical pupils undertaking the duty, and sitting beside him two at a time, the one holding the artery, and the other laying his hand upon the aneurism to watch the effect. These changed places every quarter of an hour, the fingers generally becoming tired in that time. They were relieved by others every hour. The artery was chiefly held at the apex of Scarpa's triangle, but never for long at one spot; sometimes pressure was made at the groin. He had his draught at night, but did not sleep much, the changing of the fingers giving him some pain, though when held steadily the pressure thus made was not so painful as that of the tourniquet pad.

Next morning the aneurism seemed a little more concentrated as it were, not rising so high up the thigh; it was also a little firmer, though still very soft in the prominent parts; the pulsation, however, was just as strong, and the bruit as loud as before.

Application of Shot-bag.—At six p.m. a somewhat conical wash-leather bag, containing 8 lbs. of shot, was hung from the bedstead, and so placed as to rest upon the femoral artery by its point an inch below Poupart's ligament. It was held in place by a dresser, another watching the aneurism in the meanwhile. The pressure thus applied was found entirely effective, and was not productive of any pain; by inclining the bag a little, the direction of the pressure could be changed so as to accommodate it to the position of the artery, whilst the moveable shots always formed a surface of pressure corresponding in form to that of the limb. The vibration of the artery was so powerful as distinctly to raise this 8 lb. bag of shot with every beat of the heart.

At nine on the following morning (fifteen hours) no pulsation could be felt in the aneurism, and the bruit had become quite soft and faint; there was little change in the consistence of the aneurism, and pressure was continued as before. A small artery could be felt pulsating along the inner edge of the patella.

The next morning (forty hours) the aneurism was found to be firmer and more defined in outline, not rising so high up the thigh; all bruit had disappeared.

The pressure was continued until the next day; during the time he had sedatives at night only, and slept pretty fairly; he looked weary, however, and seemed glad to be let alone.

The artery was thus held by the fingers for a day and a half, and by means of the shot-bag for nearly three days. At the end of this time the aneurism was found to be much smaller in superficial extent, and the circumference of the limb was less ($16\frac{1}{2}$ inches). It was firm in the popliteal space, and firmer than before at the inner side of the thigh. An artery nearly as large as the radial could be felt from above the aneurism towards the head of the fibula, passing along the inner side of the patella, and crossing below the knee. The femoral artery could be felt pulsating as far as the lower third of the thigh; its impulse was not so jarring as before. The leg and foot were a little warmer than on the other side, and were a little swollen.

Evacuation of Sac and Subsequent Progress.—After this the aneurism steadily diminished in size, and became firmer; the slough in the ham separated, and disclosed to view the black clot filling the sac; he became able to move the knee. His diet was improved, ale and wine being added.

On February 21 (eight days after discontinuance of pressure) the upper part of the aneurismal sac became much enlarged; it was tender and red superficially, and fluctuation could be felt in it. At the same time the patient became feverish and lost his appetite. Salines and purgatives were given him, and the part was covered with cloths dipped in spirit lotion. In two days pus tinged with blood began to discharge from the wound in the ham, the swelling subsided, and his feverish symptoms disappeared; a black clot began to project from the wound, and at the end of a week a portion of it, about the size of a hen's egg, came away; it seemed formed of simple blood-clot, mixed with some firmer decolorised fibrine. Another portion of clot, similar but rather smaller, was discharged a week afterwards. A pad was then placed over the sac, and the thigh was rolled, the wound being left open. In less than a fortnight the sac had closed, and a small ulcer only remained in the ham. The femoral artery could be felt pulsating within three inches of the knee-joint. The movements of the knee were perfect, and he was allowed to get up. The pulse was now firm, and had ceased to intermit.

He remained in the Hospital until April 22, when he was sent to the Convalescent Institution at Spark Hill, and when seen there last (April 30) he was greatly improved in health and much stouter (having gained 7 lbs. in weight during the week). He could walk a mile or so, limping a little and using a stick. The limb is now but little larger than the other, being fifteen inches and a-half in circumference at the ham, whilst the left measures fifteen inches. The calves are equal in girth. The wound is almost healed; the right leg feels a little cold along the outer side, but does not seem lower in temperature than the other. The femoral artery can be felt as low as the middle of the thigh, but, owing as it seems to increase of firmness and of fat in the limb, it cannot be traced any further. The tibial vessels cannot be felt at all, and the little artery by the side of the patella is much less distinct.

The following remarks were made by Dr. Bracey when the case was read before the Midland Medical Society:—

There are many points in this case to which I might draw attention, but I wish to speak only of the various plans of treatment pursued, with their effects and their failures; and first we have an example of the failure of the method by flexion, although this was persisted in for five days, and so forcibly as to produce a considerable slough. I believe one reason for this was the size of the aneurism; so far as I know in all the successful cases the sac has been comparatively small, not as here some eight inches in length. The position of the aneurism also was unfavourable, as it was situated high up in the popliteal space, and, therefore, was not so amenable to pressure by flexion of the knee. I think, too, that the nature of the aneurism exercised a considerable influence over the result, I have little doubt that its upper part was, in the strict sense of the term, diffused—that is, it had no proper sac. The aneurism had increased rapidly, and when this is the case the sac frequently gives way to a limited extent, and the stress of the circulation coming to bear upon surrounding parts, expands them, and so forms an irregular cavity bounded only by the condensed tissues. That this process had gone on to a considerable extent in the case before us is, I think, shown by the indefinite limit of the upper part of the aneurism in contrast with the sharply-defined lower margin. This upper portion, too, had not the firm feel of an aneurismal sac, but the blood seemed bounded only by the integument and fascia. Consequently, when by flexion of the knee the lower part of the aneurism was compressed, and the exit of blood through the distal part of the vessel obstructed, the whole force of the blood was spent upon the upper part of the sac where it was weakest, and so at the end of the five days whilst (as stated in the case) "the prominence in the ham was not so great, the upper part of the aneurism seemed larger in superficial extent, its walls were evidently thinner, and the skin covering it had a dark appearance." These considerations and the result of this case lead me to believe that flexion is only likely to be successful where the aneurism is moderately small and its sac tolerably firm and uniform in strength, and where the pressure can be spread over the whole extent of its surface; as I think that the success of the method depends upon the direct pressure made by it upon the aneurism itself, and not merely upon its checking the circulation in the distal end of the artery, as seems to be the opinion of some. When it was clear that flexion had failed, and when it was evident that, by the coming separation of the slough in the ham, the aneurismal cavity would soon be opened, the advisability of tying the femoral artery was considered. This operation, however, as shown by Dr. Norris's tables, is about as dangerous as amputation of the thigh for disease, its mortality being 24·5 per cent.; and here the circumstances of the intermittent action of the heart, and the peculiar jarring character of the pulse, rendered its prospect especially unfavourable. Thus, instrumental compression was tried, and so we have an example of the failure of this plan of treatment also. The artery was so rigid and the soft parts so flaccid that the least movement caused the vessel to slip away from under the pad, whilst the peculiar vibrating pulsation was itself sufficient to draw away the artery and remove it from the seat of pressure. The same causes rendered compression by the fingers very difficult, and it was doubtful if this plan would have succeeded; at any rate, after twenty-four hours the pulsation was as strong and the bruit as loud as before,

whilst after fifteen hours' compression by the shot-bag the pulsation had ceased entirely, and in three days the cure was considered complete. With reference to this part of the case I shall read some observations made by Mr. Crompton :—

"The experiments which have been made by many physiologists upon the force of the circulation, and the known laws of hydraulics, teach us that any dilated part of an artery is subjected to an expansive force which is much greater than that borne by the other part of vessel. Thus, an aneurismal sac which will contain eight ounces of blood has to sustain the enormous pressure of 138 lbs. at each contraction of the heart; this may be, and no doubt is, relieved by a portion of the blood passing on along the artery.

"This, however, is true only if the sac does not contain any coagula; but such is the conservative, and I may say curative, quality of the blood, that it never gets out of the course of its normal circulation without immediately beginning to coagulate; and it is evident that every layer of coagulum that is formed in the sac by so much diminishes its fluid capacity—its real size,—and by so much diminishes the expansive force which can act upon it.

"This coagulation it is our aim to procure, and by pressure upon the artery or the sac we lessen the force of the circulation, and give the blood time to coagulate.

"It appears to me an unsafe practice to attempt to obstruct the distal end of the artery if the contents of the aneurism were in great part fluid, as the distending force acting without any relief would be likely to rupture the sac, and so lead to a diffusion of blood which, as is well known, tears up with astonishing force the cellular connections of the limb to a great —to a fearful—extent. In such cases I think our aim should be to press only on the feeding end of the artery.

"The great obstacle to the use of pressure has always been the difficulty of so applying it as to ensure its continuance, and at the same time to avoid giving pain; and I believe that unless we employ some agent to a certain extent endowed with intelligence, so to speak, we shall always be liable to disappointment.

"The suspended shot-bag, by adapting itself to the varying surface, fulfils this condition, and when held in place by a dresser is thoroughly effective, and so easy that the patient in this case said he could hold it himself, only that he was sure to fall asleep over it.

"It was quite easy to tell whether the pressure was maintained by the jerking of the bag by the pulsation in the artery, this ceasing the moment the vessel slipped away from beneath it.

"As an illustration of the advantage of having an intelligent agent to regulate the pressure, I may relate the cure of a femoral aneurism by compression which occurred in my private practice some years ago :—

"The patient was a respectable farmer who, some time before, had distinguished himself by securing some burglars after a severe struggle, in which he was wounded in the shoulder. I found him suffering from acute synovitis of the knee-joint, and complaining of great pain in the dorsum of the foot. On tracing with my hands the leg and thigh upwards to find the cause of all this, I found an aneurism, about the size of a Tangier's orange, in the situation of Hunter's canal. In a week this had become much larger, and I procured a double clamp tourniquet to try the effect of compression, which method had then lately been found successful by the Dublin Surgeons. The thigh being laid on its outer side, and the knee somewhat bent, the clamp was applied; it controlled the circulation sufficiently, but it was difficult to keep it properly applied, as the pads irritated the skin, and the patient became restless and unable to bear the pain. At this time the farmer's nephew, an intelligent apothecary, came to see him, and undertook to watch the pressure. Under his care the aneurism became firmer in a few days. A firmly-rolled piece of plaster, about as thick as a swan's quill, and an inch in length, was then placed over the artery under the lowest pad, and the instrument was carefully watched through the night. Early next morning the patient experienced great pain in the limb, and the tourniquet was removed. When I arrived at noon, the aneurism had ceased to pulsate, and was much firmer to the feel. Pressure was, however, continued three days longer to ensure the result. Ten days after the sac inflamed and suppurated, the patient being very feverish. With some anxiety, and with my amputating case at hand, I laid open the sac and let out a large quantity of sanguineous pus and altered blood to his great relief. From this time he steadily improved, and he is now well and active, suffering only from a stiff knee, the result of the synovitis."

"I believe that he owes his cure to the 'intelligent' pressure made upon the artery, so much does success in Surgery depend upon the so-called 'little things.' I believe that by modifying its form the shot-bag might be applied to the other external arteries. For instance, if it terminated in a nipple-like projection, it could be used for the subclavian artery, being placed so as to lie in the hollow above the clavicle and compressing the vessel against the first rib."

Since these observations were made by Mr. Crompton, such a bag as he suggests has been used in a case of diffuse axillary aneurism, resulting from a rupture of the brachial artery at its commencement. About 3lbs. of shot were used; and it was found easy to stop the bruit by very gentle pressure with this upon the subclavian artery—a pressure easy to make and easy to bear.

I need scarcely speak of the simplicity of the contrivance and its cheapness as compared with the complicated and expensive tourniquets ordinarily used. Wherever we are likely to meet with an aneurism, we may also find the means of its cure. One of our late house pupils, now in Green's service, on his homeward passage, had a case of femoral aneurism under his care, which was a source of considerable anxiety to him. If he had been acquainted with the use of the shot-bag he might readily have treated the case with such assistance as he could obtain amongst the crew.

In conclusion, allow me to draw your attention to the result of the treatment in this case. The perfection of the cure was tested by the opening of the sac, which was the consequence of the separation of the slough in the ham; and it was thus proved that the aneurism had no longer any communication with the circulation, and thus there was no chance of a return of the pulsation.

I may contrast this with a case lately in the Hospital in which suppuration occurred in the sac of a popliteal aneurism a year after its apparent cure by ligature of the femoral artery. Hæmorrhage took place three days after the evacuation of the sac, and the plug of laminated fibrine which had filled it was found completely tunnelled for the passage of the blood. The artery was tied just above the sac; but the patient died a few days afterwards, being very cachectic, and having also a large aortic aneurism.

THE LEGION OF HONOUR.—As usual, on the Emperor's *fête* day, August 15, an immense number of nominations and promotions took place. Among the names well known in this country we find as Commanders those of Professor Brongniart and M. Bouillaud; as Officers, MM. Blanchet, of the Deaf and Dumb Institution, Girard de Cailleux, Inspector of Lunatics, M. Bouvier, of the Children's Hospital, Falret, and Professor Bouisson, of Montpellier; as Chevaliers, MM. Morel, the alienist Physician, M. Cusco, of the Lariboisière; Professors Hirtz, of Strasburgh; Bazin, of Bordeaux; M. Follin, M. A. Guérin, of the St. Louis, and the Abbé Moigno.

NEGLECT OF VACCINATION IN SAXONY.—At a large meeting of the Dresden Medical Society some resolutions were passed in relation to this subject. 1. In Saxony as well as in most other German states the regulations in force do not afford sufficient protection to the public from small-pox. 2. More active procedures with respect to vaccination are peremptorily required. At the present time the following provisions to this effect promise to be the best:—(*a*). Every child should be vaccinated between the fourth and eighteenth month of its age. (*b*). The efficacy of such vaccination should be attested by Medical inspection. (*c*). Exemption from vaccination in consequence of the occurrence of disease or other cause should be also certified by Medical authority. (*d*). Every person infringing this regulation should be made to pay annually for each unvaccinated child a fine of from 3s. to 30s. as determined by a magistrate. (*e*). The vaccinator to receive from the state 30s. for every fifty children he has successfully vaccinated without remuneration. 3. When the vaccination fails to take effect, it should be repeated once, and even twice within the next year, and if the child continues unsusceptible it may be released from farther attempts. 4. The parents should be compelled to allow the vaccinators to take lymph from the arms of their children. 5. The magistracy, district Physicians, and vaccinators should use their utmost efforts to induce persons above 14 to undergo revaccination; and on the outbreak of epidemics of small-pox offices should be opened for public gratuitous revaccination. 6. It should be the business of the State to see that a supply of efficient lymph be kept up, especially by an annual retro-vaccination of the cow-

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Medical Times and Gazette.

SATURDAY, AUGUST 27.

THE MONEY VALUE OF AN ARMY MEDICAL COMMISSION.

In order to throw more light on the position of the Medical officers of the army, we propose to compare their outlay and receipts with those of combatant officers in the Artillery and Line from the time the Artillery officer enters the Royal Military Academy at 16, the Line officer the Army, and the Surgeon commences his studies for his profession. We shall show their respective positions at the ages of 25, 30, 35, and 40, and for this purpose shall take an average of the time at present required to get through the different ranks from the earliest age at which they are eligible for the several services. This age is 18½ for the Artillery, 18 for the Line, and 21 for the Medical service, although the last is practically too low, and at the recent examination of candidates for the Medical service the average age of the eighteen who were successful was 23⅔.

Perhaps the fairest comparison is with the Artillery, as that is a scientific corps, as promotion in it is the same as in the Medical service, and as the purchase system does not apply to either. Even in the Line, where the purchase system prevails and renders the comparison more difficult, it must be remembered that it is not obligatory on an officer to purchase, although in time of peace the promotions without purchase would not be as rapid as they have here been calculated. There are other advantages which a combatant officer has, but which, not applying to all, cannot be considered here. For instance, the Artillery and Line officer, immediately he gets his company, becomes eligible for brevet rank, which gives him an increase of 2s. a-day to his regimental pay, and for additional pay for distinguished service, which gives him an increase of 4s. 5d. a-day to his regimental pay. This is no trifling consideration, especially in the Artillery, where by far the greater number of captains hold brevet rank, very many of them with distinguished conduct pay. The brevet rank would give an officer £36 10s. per annum, or for the four years of his captaincy in the Artillery £146; and the distinguished conduct pay would give him £80 12s. 1d. per annum, or for the four years £322 8s. 4d.

With regard to the sale of commissions, if, after the length of service as calculated below, the Artillery or Line combatant officers wished to dispose of their commissions, they could obtain the regulation price—£3200—for them, while the Surgeon, not being a combatant officer, is debarred from so doing, and must either take his half-pay or give up his commission without obtaining any equivalent, should he desire to leave the army; besides, it is well known that a commission in that part of the service where the purchase system prevails is worth much more than the regulation price.

In the Artillery and the Medical Department the average length of service can be pretty correctly arrived at, but in the line it is extremely difficult to get any average above the rank of Captain on account of the purchase system.

We will now proceed to show in detail the receipts of the several officers at the different stages of their services.

Line.

		s.	d.		£	s.	d.		£	s.	d.
Enters at 18.											
4 years as Ensign	at	5	3	a-day =	95	16	3	per annum =	385	5	0
3 „ Lieutenant	„	6	6	„	118	12	6	„	355	17	6
7+18=25.									£739	2	6
1 year as Lieutenant	„	6	6	„	118	12	6	„	118	12	6
4 years as Captain	„	11	7	„	211	7	11	„	845	11	8
12+18=30.									£1703	6	8
5 years as Captain	„	11	7	„	211	7	11	„	1056	19	7
17+18=35.									£2760	6	3
3 years as Captain	„	11	7	„	211	7	11	„	634	3	9
2 „ Major	„	16	0	„	292	0	0	„	584	0	0
22+18=40.									£3978	10	0

Artillery.

		s.	d.		£	s.	d.		£	s.	d.
Enters at 18½.											
3½ years as Lieutenant	at	5	7	a-day =	101	17	11	per annum =	356	12	9
3 „ „	„	6	10	„	124	14	2	„	374	2	6
6½+18½=25.									£730	15	3
1½ years as Lieutenant	„	6	10	„	124	14	2	„	187	1	3
3½ „ 2nd Captain	„	11	0	„	200	15	0	„	702	12	6
11½+18½=30.									£1620	9	0
½ year as 2nd Captain	„	11	0	„	200	15	0	„	100	7	6
4½ years „ Captain	„	12	1	„	220	10	5	„	992	6	11
16½+18½=35.									£2713	3	5
3½ years as Captain	„	12	1	„	220	10	5	„	771	16	6
1½ „ Lieut.-Col.	„	16	9	„	305	13	9	„	458	10	8
21½+18½=40.									£3943	10	7

Medical.

Enters at 21, but average at last examination was 23$\frac{13}{18}$.

		s.	d.		£	s.	d.		£	s.	d.
⅓ of a year at		5	0	a-day at Chatham					30	8	4
3⅔ years	„	10	0	„ =	182	10	0	per annum =	669	3	4
4+21=25.									£699	11	8
1⅓ years	„	10	0	„	182	10	0	„	243	6	8
3⅔ „	„	11	6	„	209	17	6	„	769	10	10
9+21=30.									£1712	9	2
1⅓ years	„	11	6	„	209	17	6	„	279	16	8
3⅔ „	„	15	0	„	273	15	0	„	1003	15	0
14+21=35.									£2996	0	10
1⅓ years	„	15	0	„	273	15	0	„	365	0	0
3⅔ „	„	18	0	„	328	10	0	„	1204	10	0
19+21=40.									£4565	10	10

In the Line, supposing the officer to have purchased all his steps, he would have paid as follows:—

For his Ensign's commission	. .	450
„ Lieutenant's	„ . .	250
„ Captain's	„ . .	1100
„ Major's	„ . .	1400
		£3200

In the Artillery his commission would cost him nothing, but the course of instruction at the Royal Military Academy as a cadet costs about £250 if he be the son of a private gentleman, but much less should he be the son of an officer of not high rank.

In the Medical Department he would have paid for his studies and board and residence, while preparing for his Profession, about £500.

As regards their positions at the age of 40, the commission of the Line officer is worth the £3200 which he has paid for it, and something beyond which is made up to him by his brother officers. The commission of the Artillery-man is worth the £3200 without his having paid anything for it, and on his completing twenty-five years' service would, as he is a lieutenant-colonel, be worth £4500; whilst the commission of the Medical officer cannot be sold, as he is a not a combatant officer. So that, although a Medical officer appears to have received more pay than either of the other officers, he is in a much worse condition than even the Line officer who paid for all his steps, more especially as in time of war, of course, a very large number of officers obtain promotion without purchase, for death vacancies are not purchaseable.

THE WEEK.

THE MEDICAL WARRANT FOR INDIA.

Sir Charles Wood's scheme does not improve on acquaintance. We call the especial attention of our readers to the letter respecting it from Dr. Lionel Beale and the articles from Indian papers which we publish in our present number. The only redeeming feature in it is its ingenuity. It certainly is a feat to frame a Warrant in such a manner that it at first sight appeared to raise the pay of the entire service, and of some ranks very considerably, and yet a slight scrutiny proved that this was to be done at the expense to Government of 345 rs., *i.e.*, £34 10s., per forty-nine officers! Such is the calculation of a writer in the *Indian Times*. This trick of legerdemain has been performed by the simple expedient of doing away with staff salaries, which formerly formed a large portion of the gains of the Indian Medical Officer, and with head-money, and applying the money thus saved to increase the pay proper, the effect being that in some ranks the new rate of emolument is considerably less than it was under the old system. Upon the Medical Officers of the Indian army holding civil or military staff appointments, the new Warrant acts most ruinously. The total loss to them upon these appointments amounts to about £6000 a-year! This is the scheme which Sir Charles Wood had the effrontery to tell the House of Commons was to remove all the grievances of the Indian Medical Officers, and to restore contentment and goodwill to the service. The impudence of the thing is worthy the author of the Indian Medical Service Bill of last Session.

OVARIOTOMY IN AUSTRALIA.

Dr. Tracy, of Melbourne, as we learn from the June number of the *Australian Medical Journal*, has had the honour and good fortune of performing the first successful operation of ovariotomy in Australia. The case was brought before the Medical Society of Victoria last May in a very valuable paper, and led to a most interesting discussion. It is very gratifying to see how the practice of Surgeons at home, and the discussions at our Medical Societies, as made known through our columns to our brethren in the colonies, are seized upon for the benefit of suffering humanity, and the very latest improvements are adopted almost as soon as they can be here. In this very case Dr. Tracy used the syphon trochar, with the hooked canula for seizing and withdrawing the empty cyst, which is one of the very latest improvements devised by Mr. Spencer Wells, and hardly yet come into general use at home. Yet it is at once seized upon in Australia. Dr. Tracy has our warmest congratulations.

THE SURGEON-GENERAL OF THE U.S. ARMY.

"*Quem Deus vult perdere prius dementat.*" Can this be true of our once prosperous cousin Jonathan? We sincerely hope not; for in spite of his faults he is too good a fellow to be spared from the surface of this planet; but it must be confessed that the way in which he treats some of his best public servants has something ominous about it. True, Jonathan, you may have something besides a mill for grinding greenbacks in that Treasury of yours at Washington—you may have some reserve fund of patriotism, honesty, and ability of which we have not heard: and the small value that you set on the articles in question, notwithstanding the great demand for them, and the slight consideration, not to say the disgraceful ingratitude, with which you treat those who have shown that they possess them, would almost seem to imply that you have such a provision for the future; but we reckon not. To pass over other and more conspicuous cases, let us refer to one which most concerns ourselves—that of the Surgeon-General of the Army. This officer, as our readers are aware, has been tried by court-martial on charges of peculation and other misconduct, framed at the instigation of the Secretary of War. The court completed its labours four months ago, and the verdict is well known to have been a complete and honourable acquittal; but up to this time no official intimation of the fact has been made to the accused. The finding of the court is, in fact, intercepted and withheld by the Secretary of War, who, having failed to crush his intended victim by fair means or foul, still, with the rancour of an ingenious personal enemy, contrives to keep these disgraceful charges hanging over his head, and at the same time delays his restoration to duty, which would necessarily follow on the publication of the finding. These two gentlemen have the misfortune to be next-door neighbours to each other at Washington. Heaven knows in what the quarrel originated, whether in an intolerance of organ-grinders in one family and a corresponding devotion to them in the other, or in an illicit amour discovered between the Surgeon-General's Tom and the Secretary's favourite tabby, or something more unimportant than these—great men have sometimes been upset by molehills; but as results, the Medical bureau is thrown into confusion, the army Surgeons are indignant, and distrust becomes universal. And all this is done, oh Jonathan, under "the best Government that the world ever saw."

THE LATE MEDICAL OFFICER OF HEALTH FOR MARYLEBONE.

Medical science has lost an able and earnest servant, if not a great Practitioner, by the death of Dr. Robert Dundas Thomson, late the Medical Officer of Health for Marylebone. For some months past the friends of Dr. Thomson had read in his face sad forebodings; but the news of his death, nevertheless, will be received by the world of science and of scientific Medicine with profound regret; for in that loss not only is a scholar buried, but an honest, truthful man, who loved his friends, and was equally loved by them.

Dr. Thomson died at his residence in York-place, Regent's-park, on Wednesday, August 18, after much suffering. The cause of his death was malignant disease affecting the alimentary tract. Dr. Thomson was a Berwick man, and was born in 1811. He was the nephew of the distinguished chemist, Dr. Thomas Thomson, who, after Priestly, was certainly one of the first chemists of this country, and who added largely to those discoveries in electricity which have since rendered that force so subservient to the uses of mankind. Dundas Thomson studied chemistry under his uncle, but he also prepared himself for Medical practice, graduated in Glasgow, and after a trip to India and China settled in London, and became a Physician and teacher. In the development of his gifts his mind naturally almost turned to chemistry as a science, rather than to Medicine; and the result was that he sank the latter in the former. He soon became, by many clear and original researches, well known and appreciated in the chemical world, and on the health of his uncle declining from old age, he returned to Glasgow, and became Deputy-Professor in the chemical chair.

In this effort he was unfortunate; following a man more powerful though not more earnest than himself, he failed to "draw." He was further unfortunate, in that at the rival school of Anderson's University Professor Penny had become recognised as one of the most brilliant, clear, and sound experimental teachers of the day. Thomson had, therefore, two rivals, one of the past and the other of the present; he had to sustain as well as to compete, and to compete as well as to sustain.

A man of unusual power and aptitude is required for such a position, and Dr. Thomson, able as he was, did not carry sufficient force. His lectures were heavy and hesitating, his experiments slow, and his matter too profound for the student mind; and so when the time came for him to contest the chair of Chemistry in the University of Glasgow, he lost the election.

After this check in his career, Dr. Thomson came again to London, and on the retirement of Dr. Leeson, he was made Lecturer on Chemistry in St. Thomas's Hospital. He held the appointment for some years, and resigned because he had not time to carry out the duties.

When the Metropolitan Act came into force, and Medical Officers of Health were about to be appointed, Dr. Thomson was looked on by his brethren as one who would needs fill such a post with honour and usefulness. He competed for the office in Marylebone, and after a sharp contest carried the day. From that time until his death he has been engaged in carrying out the duties of the office with an amount of zeal, care, and scientific accuracy that won for him the esteem of all classes, scientific and general.

The decease of Dr. Thomson leaves open two offices—the Presidency of the Association of Medical Officers of Health, and the place of Medical Officer of Health for the Parish of Marylebone. The first, we have no doubt, will be filled up worthily. In respect to the second, there is a scene going forward which, had it taken place under other circumstances, would have been highly amusing. Several weeks prior to Dr. Thomson's death a paper was drawn up and circulated, inviting a member of the Vestry, Dr. Whitmore, to become a candidate for the office that was expected to become vacant by the death of Dr. Thomson. The document is couched in a strain in which subdued piety, resignation to fate, and a shrewd suggestion as to the way in which fate should be met, are blended in colours so fine and shady that the reader, bewildered for the moment with the coolness of the thing, at last laughs irresistibly; for, in spite of himself, he cannot be shocked; he might as well try to be shocked at the prospectus of the Anglo-Bengalee Life Assurance Philanthropists. Whatever may be the feelings excited, it is certain that the document has answered its purpose. It has been signed by some seventy of the Vestry, and it is now being backed up by "ward meetings"—a series of political feasts for this dull season, when the Ministry (not in the ordinary sense) is half seas over, and an apt excellent illustration of the proverb—

"When the cat's away
The mice will play."

To meet the Vestry in its scheme, a protest has been sent into it signed by 200 of the most eminent men in the parish, who are anxious for the appointment of a man of high scientific standing. This document, signed, we are sure, in all good faith, by the majority, as expressing only a general sentiment, has unfortunately reached the Vestry in such a manner as to convey the notion that it is intended in support of one particular candidate—Dr. Hassall. When read to the Vestry, therefore, the intention of the Medical men of Marylebone was misconstrued, and in the discussion that followed not a little opposition was exhibited. To crown all, Mr. Nicholay, one of the Vestry, tried to take the sting out of the protest by stating that the protest was virtuously indignant against the friends of Dr. Whitmore for having solicited votes while Dr. Thomson was living, but that in truth, if there were anything wrong in this act, the wrong commenced on the other side, for that he himself, Mr. Nicholay, had been canvassed in behalf of Dr. Hassall before any other movement was even projected.

And so the matter stands, a curious picture of popular opposition to professional feeling and of the manner in which public interests are lost sight of amid party strife. It is certain and beyond doubt, that a majority of the Vestry of Marylebone, while yet its Medical Officer of Health was alive, pledged itself irretrievably to another candidate, regardless of any after competition. To say that it was impelled to this by the proceedings of a previous canvasser is puerile, and utterly vain. Let these frivolous excuses and pretexts be ignored, and let the truth be told that the Vestry is pledged. Then, when its advertisement, asking candidates to apply, appears in public print, it will be met with all the contempt and indifference which such a proceeding demands.

FROM ABROAD.—METALLIC SUTURES IN HARE-LIP—SUTURE OF THE MEDIAN NERVE.

During a discussion on the operation for vesico-vaginal fistula at the Paris Society of Surgery, M. Giraldés passed a high eulogium on metallic sutures, stating that during the last two years he has employed no others in the treatment of hare-lip, whether simple or complicated, leaving them *in situ* without any ill effect until the entire healing of the wound. An advantage which they possess over other forms of suture, and especially the twisted suture, is that they do not produce ulceration of the parts or rupture of the cicatrix. M. Richet does not participate in this enthusiasm, for in a case of suture of the penis in which he simultaneously employed the ordinary silk sutures and the metallic sutures, he found that the latter cut through the tissues, while the former completely fulfilled their object. M. Velpeau is of opinion that there cannot be any general rule laid down for the adoption of this new procedure to the exclusion of the old one. Each may have its advantages. For his own part, he always employs the twisted suture in hare-lip, and has never met with the accidents said by M. Giraldés to be incident to its use. He always takes care to remove the pins at intervals of a day or two, beginning with the lowest the next day after the operation, or the day after that; then the second one next day, and leaving the last until the wound has cicatrised. In this way union by the first intention may always be secured in a few days—a week at the utmost. For operations on the penis, as phimosis and circumcision, he always employs the *serres-fines* of Vidal, which are the best means of uniting tissues which cannot be subjected to much traction, and which are sufficiently lax and extensible to follow the movements of the organ of which they constitute a part. M. Letenneur, of Nantes, speaks in the highest terms of metallic sutures, especially for the operation for hare-lip. In a complicated case of this kind he left them in for two months without any ulceration or division of tissue resulting. He generally applies six points, and leaves them in a fortnight. M. Depaul cannot agree to the superiority of the metallic suture for hare-lip operations, which succeed admirably by means of pins, three pins and six days in general sufficing for the treatment, in place of the six points and fifteen days employed by M. Letenneur. The metallic sutures, being very thin, cut through the tissues. M. Verneuil is a declared partisan of metallic sutures; for they alone can be employed in cases in which the sutures must remain for a long period. They certainly do occasionally cut through the tissues, but so also do organic ligatures. The pin in harelip is, in fact, only one form of metallic suture, and is less preferable than the one in question. The metallic are far more easily applied, and that, if necessary, at the bottom of cavities, and after their application they are far more readily inspected. M. Trélat likewise prefers the metallic sutures for harelip; and especially if the flaps are somewhat thick, when their exact approximation, impossible by means of pins, can be readily effected. M. Giraldés repeated his conviction that the superiority of metallic sutures in harelip is a fact that can admit of no doubt; and he regards the twisted suture, with its accumulations of blood and pus, and consequent irritation, as a most detestable procedure. The points of suture should be sufficiently multiplied to secure exact approximation, and they should be left in for a fortnight or more, so as to allow the cicatrix to acquire firmness and prevent its becoming torn by the motions of the mouth. This retention of the sutures is unattended by any inconvenience, and the children requiring no superintendence may be sent into the country. It is not denied that these sutures may sometimes cut through the tissues, and their not doing so may much depend upon the practical tact with which they are applied, a sufficient amount of pressure being exerted to secure approximation without division of tissues.

M. Langier, in a second paper, furnished the Academie des Sciences with some additional information respecting the case (*Medical Times and Gazette*, July 9) in which he had performed suture of the median nerve. On the twelfth day after its application, the thread uniting the two ends of the nerve came away, having cut through the portions comprised by it. Up to this time the recovered sensibility and motions of the fingers had persisted unimpaired; but at the time of

the fall of the suture inflammation seized the nerve at the point exposed in the wound, and was accompanied by lancinating pains along the fingers, which, however, were very unequally distributed, the ring finger, for example, being exempt from them. At the same time, the painful fingers lost again a notable portion of the tactile sensibility of their palmar surfaces, but this in very unequal degree and extent in the different fingers. At the end of five or six days the pains due to the neuritis became assuaged, being only perceived at certain points at intervals; and after the subsidence of the pains the tactile sensibility began to reappear, so that by the twentieth day after the fall of the suture it had regained considerable precision. During all this time, the movements of the thumb remained intact, and had even increased in the power they possessed the first few days after the operation—not only the movement of opposition, but that of circumduction, having been practicable for more than three weeks.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF BIRMINGHAM.

THE QUEEN'S HOSPITAL.

(Continued from page 131.)

The reader will remember that at the close of my last communication on the Medical History of Birmingham I noticed the Surgical practice of the Queen's Hospital. To bring the report of that institution to an end only two other subjects call for attention, the question of mortality and the administration of chloroform.

Mortality.

The mortality of the Hospital, according to the method of calculation established by Dr. Farr, is 58·52 per cent., which, in comparison with the Hospitals of other towns in the kingdom of the size of Birmingham, is unquestionably low. At the same time, as a reference to my previous papers will show, it is much higher than at the Hospitals of Lynn, Stafford, and Norwich. By the ordinary method of calculation, from July 1, 1862, to December 31, 1863, the mortality on all patients admitted was 6·32 per cent., while in the year 1858 it was only 5·78 per cent. Of the mortality after Surgical operations generally and after special Surgical operations no comprehensive statistics are obtainable, but I found that in the eighteen months extending from July 1, 1862, to December 31, 1863, the mortality after Surgical operations altogether was 9·57 per cent. The character of the operations may be gathered from the following table, drawn up by Mr. Thompson :—

Operations from July 1, 1862, *to December* 31, 1863.

	Under 10		10 & 20		20 & 30		30 & 40		Above 40		Cured.	Relieved.	Died.	Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.				
Amputation at Hip-joint	—	—	—	—	—	—	1	—	—	—	1	—	—	1
,, of Thigh	1	—	—	—	1	2	—	—	—	—	2	—	2	4
,, ,, Leg	—	—	—	—	1	—	—	—	—	—	1	—	—	1
,, ,, Arm	1	—	1	1	—	—	1	—	—	1	4	—	—	4
,, ,, Foot	—	—	—	—	2	—	—	—	1	—	3	—	—	3
,, ,, Toes	—	—	—	—	2	—	—	—	—	—	2	—	—	2
Partial Amputation of Hand	—	—	2	—	1	2	3	—	2	2	12	—	—	12
Extirpation of Breast	—	—	—	—	—	1	—	4	—	7	12	—	—	12
,, ,, Tumours	—	—	2	—	—	2	2	—	2	—	8	—	—	8
Herniotomy	1	—	—	—	—	—	—	—	1	—	—	—	2	2
Lithotomy	—	—	—	—	—	—	1	—	—	—	1	—	—	1
Paracentesis Thoracis	—	1	—	—	—	—	—	—	—	—	—	—	1	1
,, Abdomenis	—	—	—	—	—	—	—	—	—	1	—	1	—	1
Extirpatio Testis	—	—	—	—	—	—	2	—	—	—	2	—	—	2
Radical Cure of Hydrocele	—	—	—	—	1	—	1	—	3	—	5	—	—	5
Removal of Necrosed Bone	1	—	2	2	1	1	1	—	—	—	6	1	1	8
Excision of Cicatrices	—	—	1	—	—	1	—	1	—	—	2	1	—	3
Obliteration of Veins	—	—	—	—	—	1	—	—	—	—	1	—	—	1
Talipes	4	—	—	—	—	—	—	—	—	—	3	1	—	4
Division of Sphincter-Ani	—	—	—	1	—	—	—	—	1	—	2	—	—	2
Ovariotomy	—	—	—	—	—	1	—	1	—	1	1	—	2	3
Stricture Ureth. (Holt)	—	—	—	—	—	—	2	—	2	—	3	—	1	4
,, (Symes)	—	—	—	—	1	—	—	—	—	—	1	—	—	1
Excision of Hip-joint	—	—	—	1	—	—	—	—	—	—	1	—	—	1
,, ,, Knee	—	—	—	—	1	—	—	—	—	—	1	—	—	1
,, ,, Shoulder	—	—	1	—	—	—	—	—	—	—	1	—	—	1
,, ,, Elbow	—	—	2	—	—	1	—	—	—	—	3	—	—	3
Perinæography	—	—	—	—	—	1	—	1	—	—	2	—	—	2
Partial Excision of Tongue	—	—	—	1	—	—	—	—	—	—	1	—	—	1
	8	1	11	6	11	13	14	7	12	12	81	4	9	94

In the year 1858 the Surgical mortality was only 5·55 per cent. The operations performed were as follow :—

Operations.	Total.	Male.	Female.	Cured.	Relieved.	Died.	Absconded or Expelled.	Incurable.	Remain in Hospital.
Amputation of the Thigh	1	—	1	1	—	—	—	—	—
,, ,, Leg	1	1	—	—	—	—	—	—	1
,, ,, Arm	1	1	—	—	—	—	—	—	1
,, ,, Foot	1	1	—	—	—	—	—	—	1
,, ,, Toes	1	1	—	1	—	—	—	—	—
,, ,, Fingers	8	8	—	8	—	—	—	—	—
Extirpation of Breast	5	—	5	3	1	1	—	—	—
,, Tumours	7	6	1	7	—	—	—	—	—
Herniotomy	2	2	—	—	—	2	—	—	—
Lithotomy	2	2	—	2	—	—	—	—	—
Lithotrity	1	1	—	1	—	—	—	—	—
Paracentesis Thoracis	1	—	1	—	1	—	—	—	—
Extirpatio Testis	1	1	—	1	—	—	—	—	—
For Procidentia Uteri	2	—	2	2	—	—	—	—	—
For Radical Cure of Hydrocele	2	2	—	2	—	—	—	—	—
For Relief of Variocele	1	1	—	—	—	—	—	—	1
Removal of Necrosed Bone	2	1	1	2	—	—	—	—	—
Hare-lip	1	—	1	1	—	—	—	—	—
Plastic Operations	2	2	—	1	1	—	—	—	—
Excision of Cicatrices	2	1	1	2	—	—	—	—	—
Obliteration of Veins	1	1	—	—	—	—	—	—	1
For Talipes	2	2	—	2	—	—	—	—	—
Division of Sphincter Ani	7	6	1	5	—	—	1	—	1
Partial Excision of Lower Jaw	1	1	—	1	—	—	—	—	—
Total	54	40	14	41	3	3	1	—	6

Chloroform.

Chloroform has been administered at least *two thousand one hundred times* in the Queen's Hospital. It is usually given by Dr. Simpson's method: a piece of towel or cloth is laid over the face, and the chloroform is allowed to fall on the outer surface drop by drop. The administration is entrusted to one of the officers, who devotes his whole attention to the process during operation.

One casualty has occurred under chloroform in the Hospital, the patient dying on the operating table while in a state of anæsthesia. I am, however, unable to state *precisely* whether the narcotic or hæmorrhage were the cause of death. The impression left is that the fatal result arose from the inhalation. The sufferer was an adult.

It is interesting to note that in the course of these papers this is the first case in which chloroform has been reported as causing death in Hospital. It may be well, therefore, to sum up the number of administrations that have been recorded.

In Norwich Hospital	2250
Lynn	900
Stafford	750
Wolverhampton	4000
Newcastle-under-Lyme	3000
Brighton	1200
Birmingham—General	2800
,, Queen's	2100
Total	17,000
Deaths—Total	1

In this computation the lowest possible estimate of the number of administrations is computed, so that we positively have evidence of 17,000 administrations of chloroform with but a single death. This is a great fact, and when it is taken in connection with the circumstance that the patients subjected to the drug were made to inhale it by means as different as can be conceived, it really looks as though the apparatus used for administration had, after all, little to do with the result.

Returning to the Queen's Hospital at Birmingham, one cannot in fairness withhold from it the statement that it is one of the best institutions in the kingdom in regard to the success of its practice. It is not, as a building, perfect in construction; but it is an immense improvement on the erections of the last century, and it is an excellent school for observation.

The records of its practice ought to be more scientifically and systematically written down.

Appendix.

In the report of 1860-61 the Governors of the Queen's Hospital supply a very important document, collated by the Rev. A. Stead, a gentleman well known for his accurate statistical learning. This paper gives the facts as to the amounts of various foods consumed by nine provincial Hospitals; and as it has never been made generally known I give it place in this history.

*

Articles Consumed.	Brighton. No. of In-patients, 1039. Daily average, 103.		Cambridge. No. of In-patients, 554. Daily average, 79½.		Canterbury. No. of In-patients, 664. Daily average, 77.		Exeter. No. of In-patients, 1169. Daily average, 177.		Hull. No. of In-patients, 836. Daily average, —		Norwich. No. of In-patients, 870. Daily average, 104½.		Nottingham. No. of In-patients, 1632. Daily average, 136.		Oxford. No. of In-patients, 976. Daily average, 108.		Shrewsbury. No. of In-patients, 1179. Daily average, 113.	
	Quantity.	£	Quantity.	£	Quantity.	£	Quantity.	£	Quantity.	£	Quantity.	£	Quantity.	£	Quantity.	£	Quantity.	£
Butcher's meat, lb	27345	814	—	411	19898	557	28709	694	—	356	18199	492	34552	*a* 781	27474	727	21986	531
Bacon and pork ,,	9 7		—	14	—	—	—	7	—	—	*b* 412	13	—	—	112	4	—	—
Bread and flour ,,	loaves of 4 lb. 11028 flour 328 gals.	417	—	271	flour 359 bls.	197	flour 213 sks. and baking	570	—	318	loaves of 4 lb. 9607 flour 17 sks.	342	loaves of 4 lb. 13415 flour 2954 lb.	*d* 463	loaves of 4 lb. 13388 flour 6 bls.	407	flour, 43120 lb.	355
Tea ..... ,,	427		—		209		—		—		632		634		—		—	
Sugar and groceries ..... ,,	3155	500	—	135	1830	112	—	77	—	110	2394	189	4249	318	—	65	—	201
Butter ..... ,,	3306		—	86	1848	94	—	126	—	20	2647	160	1707	118	2658	160	1628	100
Cheese ..... ,,	1192		—	39	465	16	2240	73	—	1	2648	89	466	16	601	18	2331	97
Milk ..... gals.	2388	74	—	127	1449	72	4212	73	—	50	2539	84	5868	192	4095	143	—	65
Wine ..... ,,	147	181	—	33	53	41	—	101	—	*e* 60	66	71	77	62	19	16	—	261
Spirits .... ,,	64		—		6	6	—		—		34	39	30	43	4	6	—	
Soda-water bottls.	2356	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Beer ..... gals.	6136	247	—	176	3791	115	—	361	—	53	6701	265	—	124	7884	187	—	292
Coals ..... tons	224	345	—	48	115	130	172	219	—	51	138	144	458	248	271	229	270	165
Coke..... bush.	1784		—	10	—	—	—	—	—	—	chal. 11	10	—	—	ton 1	1	—	—
Gas ..... feet	—	61	—	—	—	—	—	39	—		*f* 205300	59	—	70	137200	34	—	36
Candles ..... lb	1542	*g*—	—	—	1036	31	—	17	—	24	156	4	471	13	768	26	—	
Soap ..... ,,	1484	35	—	—	616	12	896	19	—		2240	37	1511	23	2393	37	—	25
Fish and poultry	—	45	—	9	—	5	—	9	—	4	—	—	—	—	—	—	—	*h* 41
Vegetables	—	*i* 101	—	26	—	*j* 25	—	*k* 138	—	*l* 25	—	*m* 41	—	*n* 109	—	24	—	75
Water	—	80	—	—	—	—	—	2	—	1	—	38	—	31	—	2	—	20
Expenditure for provisions, etc.		£2912		£1385		£1413		£2525		£1073		£2077		£2611		£2086		£2264
Incidentals :—																		
Carriage of goods, postage		16		—		9		1		—		12		—		17		31
Insurance		18		4		5		9		1		3		4		6		5
Printing, stationery, and advertising		110		61		37		50		24		57		74		58		66
Salaries		1033		644		522		653		366		612		810		849		489
Expenditure for provisions and incidentals ...		£4089		£2094		£1986		£3238		£1464		£2761		£3499		£3016		£2855

a "Sundry meat" included. *b* Pork and veal. *c* Meal and sharps, 61 sacks, value £75, included. *d* Included for "sundry bread," £14, and for 200 pecks of oatmeal, £16. *e* Includes spirits of wine. *f* Two lamps lit by gas included. *g* Included in charge for groceries. *h* Includes eggs. *i* Includes fruit. *j* Includes fruit. *k* Includes fruit and gardener's wages. *l* Includes eggs. *m* Includes fruit. *n* Includes fruit and gardener's wages.

In reference to the above table, the Rev. A. Stead observes,—"I did not enter drugs and Surgical instruments, as only a portion of the expense incurred for these belongs to the in-patients, and it is very difficult to ascertain with anything like accuracy what that portion is."—To W. S. Cox.

THE CHILDREN'S HOSPITAL.

The Children's Hospital, founded in 1861 and opened in 1862, consists of two divisions—a general and a contagious department. The former consists of three wards and a day-room. One of the wards is exclusively devoted to croup cases. The ventilation is mainly effected by windows and fire-places; but this is supplemented by a great variety of contrivances—such as openings in the chimney flues, valvular openings in the ceiling of the largest ward, perforated plates above the doors and in many of the windows, which also open on the duplex plan by means of balanced sashes. The wards are thoroughly washed and dried weekly. The window space in the contagious department and in the largest general ward is unusually great; so that a very cheerful aspect is given to the rooms. The characteristics of this institution are—completely free admissions, no subscriber having the right to nominate patients, and a strict scrutiny by the secretary into the fitness of applicants in a financial sense, this scrutiny being conducted in accordance with definite regulations, published in this journal last year. Although only open two and a-half years, a subscription-list of more than £600 per annum demonstrates that endowments or large invested funds are not essential to the success of free Hospitals. There are several other peculiarities in this institution of an administrative nature. The Medical officers are not allowed to be on any of the administrative Committees, and their tenure of office is limited. The Managing Committee have made a bold innovation upon established customs by constituting gentlemen possessed of a degree from a British university Medical officers in charge of the *Medical* department, and with the same privileges as the Physicians proper. This beginning of the one-faculty idea, as applied to institutions, probably serves to indicate the direction about to be taken by the stream of progress. Last year there were 432 in-patients and 48 deaths. The mean duration of stay was eleven and a-half days. This very small detention is connected with the circumstance that the majority of the patients labour under ailments of an acute character.

Points of Practice.

Use of Oakum for Lint to Suppurating Sores.

Mr. Redfern Davies, one of the Surgeons to the Hospital, has been using picked oakum instead of lint for the absorption of pus from sores. I saw the plan in action, and can speak of it as being a most valuable practical application.

The case of a boy, aged 5 years, who had been the subject of morbus coxarius for eighteen months; fistulous openings led to a carious head of the femur, the soft parts around being undermined.

On July 13 he was operated on, the upper half of head of femur was removed, and those portions of the rim of the acetabulum that were denuded of cartilage and carious were gouged. Since this proceeding he has improved in appearance, and promises to turn out well.

The after treatment has consisted in (*a*) keeping the limb quiet by having sand bags on each side of it, (*b*) in extension by having attached to it a weight over a pulley, and the lower end of the bed being raised; (*c*) the wound is surrounded with well carded oakum, some of which is inserted deep into it, that healing might take place from the bottom.

One of the objects in applying lint to a suppurating wound is that it may absorb the discharges. Lint is composed of cotton. If a bale of cotton is immersed in a river for a month, the cotton in the centre of the bale will be found to be, upon examination, perfectly dry. If the same quantity of picked oakum be similarly treated, it will be found in a few hours to be completely saturated. So when a pad of lint over a suppurating wound is removed, after having been upon it for many hours, it will be found to be—save at its points of immediate contact—quite dry, and the pus beneath will gush out. Thus the pad of lint acts as a tampon, *preventing* the free escape of pus, which necessarily burrows in different directions, giving rise to extensive and dangerous abscesses.

But, when *picked oakum* is placed over such a wound, upon its removal the wound will be found dry and clean, the oakum saturated with pus. The picked oakum acts like a syphon, discharging the pus as it is secreted by capillary attraction; and, from its fibres being tarred, it is a very excellent antiseptic, and removes all unpleasant odour.

Treatment of Hernia.

In eleven cases of rupture among children during the last twelve months, in which Mr. Davies deemed it advisable to operate, he has either drawn together the edges of the ring with wire, withdrawing the wire when sufficient irritation is set up, or he has used the pin method of Mr. John Wood. With one exception, all the cases seem *now* to be doing well.

In cases, however, where a truss has been for some time worn, and failed to cure the rupture, or when the wearing of a truss has been attended with pain and therefore discontinued, Mr. Davies has endeavoured radically to cure the rupture by operation. In the years 1858, 1859, and 1860, in ten cases of inguinal hernia in children under 8 years of age, he used either the plan recommended by Wützer, or a method that is detailed in a pamphlet published about that time, consisting in an attempt to invaginate a portion of the scrotum into the abnormal aperture. Of these cases nine are now quite sound; in the case that ultimately failed (though at the time appearing cured), partly from the occurrence shortly after operation of scrofulous disease of the vertebræ and lumbar abscesses, and partly from not wearing a truss, the rupture was gradually forced down again by a continuous cough.

Amputations.

In an amputation May 3, 1864, at the lower third of the thigh, upon a child aged 4 years, the plan advocated by Mr. Carden, of Worcester—viz., making a single flap of skin and fat, and anteriorly, was carried out with excellent results.

In addition Mr. Davies covered the sawn end of the bone—having removed its sharp edge—with periosteum which had been easily raised from the bone about to be cut off. The end of the bone was thus clothed with a material which is more natural to it than any other. All the arteries were fastened with freshly-annealed silver wire; the advantage of thus securing arteries he (Mr. Davies) had the opportunity of extensively trying when serving in the Federal army. While obliterating the extremity of an artery in the same manner but in a shorter time than a silken thread, a silver wire does not of itself constitute a focus for purulent secretion, permeating tissues which are endeavouring to unite, and are temporarily weakened by their supply of blood being cut off or diminished.

THE MEDICAL STAFF.

Consulting Physician—Dr. James Johnstone. *Consulting Surgeon*—Mr. Samuel Berry. *Acting Medical Officers*—Dr. Heslop, Dr. Anthony, Dr. Jordan, Mr. Malim Sharman, Mr. T. H. Bartleet, Mr. J. Redfern Davies. *Surgeon Dentist*—Mr. Howkins.

THE BIRMINGHAM AND MIDLAND EYE HOSPITAL.

The Birmingham and Midland Eye Hospital was founded in 1823 by Mr. Hodgson. All out-patients were admitted free. In 1853, with an income of less than £200, the institution relieved 3544 persons. In 1856 the system was changed, and the production of a ticket by each patient was made compulsory, except in urgent cases. The effect was that the applications for relief diminished to 2620, while the income rose to nearly £400; and in 1858 so much public attention had been drawn to the value of the charity *by the urgency with which patients sought for tickets*, and by the activity of the committee in canvassing for funds, that the income reached the sum of £645.

In a report of the annual meeting recently issued the annual income is shown to be £2112 11s., and the number of cases relieved in the year as 6729.

PRACTICE.

In the three years ending March, 1864, 322 cases of cataract have been submitted to operation, of which 240 were instances of *extraction*. In no case was depression performed.

Iridectomy has been practised in the past year upon upwards of 100 eyes, 18 of which were affected by glaucoma. For this disease "*intraocular myotomy*" and paracentesis of the sclerotica through the ciliary region—a modification of Desmarres' operation now practised in London—have been tried in many instances. Mr. Solomon has not met with an example in which the latter operation has effected a cure of typical glaucoma. The main points, if not the whole, of Donders' theory of the nature of glaucoma and its cure by iridectomy were anticipated and made public by Mr. Solomon at the meeting of the Medical Association at Torquay in 1860, and subsequently in his writings in this journal.

Circumcision of the conjunctiva (peritomy or syndectomy) has been applied by Mr. Solomon to some severe and intractable cases of interstitial keratitis connected with hereditary syphilis, with the effect of removing the intolerance of light and vascularity of the cornea. In some examples of conical cornea, of inflammatory origin, and in which the opacity has been so deep and diffused that the iris was completely occluded from view, peritomy has cleared the cornea in great measure and materially diminished its conical form.

Of the cases in which the operation was practised last year by him, which were sixteen in number, in none did any evil result arise. This Mr. Solomon attributes to his careful exclusion of any who had not enjoyed for a reasonable time a diet of animal food.

Mr. Solomon has not found the slightest benefit in cases of interstitial keratitis, occurring in children with specific teeth, from the use of calomel vapour baths. But as a means of treating syphilitic retinitis these baths have proved to be far superior to all other means of medication. Patients who had been carefully treated, and with but little success, by mercury and the iodides given by the mouth, have recovered by this treatment the power of reading very small type.

We have noticed thus briefly some of the chief features of interest in the treatment at this Hospital, which includes, however, in its experience all the most approved methods of the modern school of ophthalmology. The constitutional treatment of disease is distinctly recognised, and, as a rule, irritating drops are seldom applied.

The practice adopted by Mr. Chesshire at the Eye Hospital of administering tartarised antimony internally as a remedy in the treatment of strumous ophthalmia has been attended with marked success. Some of the more obstinate cases, where quinine, arsenic, and steel had been freely given, combined with counter-irritation and local stimulation, without relief, were in a remarkably short space of time under the tartar emetic treatment greatly improved. The photophobia was generally the first symptom to give way. Where pain and intolerance of light were prominent symptoms, the application of a few leeches to the lower lid materially assisted in promoting a favourable result.

Mr. Chesshire uses the remedy in acute conjunctivitis and keratitis, and in phlyctenular ophthalmia, and some extraordinary results have been obtained by a continued course of the remedy, combined with local stimulants, in pannus and in the removal of corneal opacities. It is somewhat remarkable, but the majority of the patients who have been treated on the tartar emetic plan have improved in their general health, the appetite especially being increased; and where tartar emetic had been substituted for quinine and steel, porter and beef, the patients usually became stronger and decidedly more energetic.

One boy, 12 years of age, had suffered from pannus about eight months, and when brought to the Eye Hospital three months ago he could not distinguish objects, and his powers of perception of light were but feeble. A course of tartarised antimony with the occasional application of leeches subdued the more acute symptoms at the commencement, but subsequently, the tartar emetic being still continued and silver drops with glycerine being applied locally, the cornea has cleared to such an extent that the boy can easily read No. 20 in Jaeger's type, and with some difficulty he can distinguish the letters in No. 18. Even in adults suffering from keratitis and conjunctivitis with vascular ulcer the effect of the remedy is often remarkable. One lady, 59 years of age, who had suffered from acute keratitis with irritable ulcer, in seven days after the treatment had been adopted had lost all the photophobia, which a week before was most distressing, the conjunctival inflammation had quite subsided, and the ulcer was fast healing.

The Hospital is a transformed hotel, situated at the end of Temple-row. The ventilation of the wards would admit of improvement, and the consulting-room is badly lighted. The window is only sixteen feet wide, and before it there is a blank wall.

Consulting Surgeons — Joseph Hodgson, Esq., F.R.S., Richard Middlemore, Esq. *Surgeons*—Mr. Chesshire, Mr. Solomon, Mr. Townsend. *Resident Surgeon*—Mr. W. Arthur Bracey.

THE BIRMINGHAM EYE AND EAR HOSPITAL.

This Institution, projected some years before 1857, was established in that year. With the best wishes for the welfare of the Birmingham and Midland Eye Hospital, it was felt that the vast increase of the population of the town and district, especially of the "Black Country," necessitated, for the benefit of all classes, that special experience should be accessible to more than three Surgeons—three having been the number of ophthalmic appointments in the town for the previous forty years. It was also the opinion of many well-informed and soundly-judging persons that it is more conducive to the public good, and that the means of charity are more efficiently administered by new centres of interest and energetic management than by an indefinite expansion of older institutions.

Consulting Physician—Dr. Fleming. *Surgeons*—F. Jordan, Esq., B. Hunt, Esq., and G. H. Marshal, Esq., M.D.

Cases of Interest—Diseases of the Ear.

Polypus of the Mastoid Process.—An interesting case presented itself recently, of a large polypus which filled and projected beyond a cavity in the mastoid process. The disease existed on both sides, but was much more marked on the right side. The polypi projected through the integument as well as through the bone. Both the external mastoid canals were also filled with polypi.

Obstruction of the throat extremity of the Eustachian tubes is one of the commonest of aural diseases. Mr. Furneaux Jordan has observed that in the larger number of these cases there is added disease of the tympanal cavity and external meatus also—the nervous apparatus only escaping.

Removal of the tonsils is not unfrequently required, not so much for the relief of deafness, which, however, certainly follows, but to prevent asphyxia. Mr. Furneaux Jordan has met with a few cases of this severe character; the large tonsils completely in contact in the centre of the fauces, and the nasal membrane so thickened as to render nasal respiration impossible. Here removal of the tonsils is absolutely imperative.

Diseases of the Eye.

Interstitial keratitis of hereditary syphilis without the single notch of the incisors.—Although in Mr. Furneaux Jordan's practice the great bulk of the cases of interstitial keratitis are associated with the peculiar teeth described by Mr. Jonathan Hutchinson, cases do occasionally occur where the interstitial keratitis is present with undoubted indications of inherited syphilis, especially nodes on the ulna, but where the teeth are perfectly healthy, a mild mercurial treatment in these cases works most useful results.

Hypermetropia is very common. A large number of neglected cases present themselve where the long strain on the accommodative apparatus has been followed by retinitis. In the ophthalmoscopic appearances of the retinitis of hypermetropia Mr. Furneaux Jordan has noticed that the redness of the optic nerve entrance has occupied the two outer thirds of the circle only, and that in the centre there has been a well-defined circular spot of the natural colour of the optic entrance. Although this may be referred to anatomical peculiarities, it certainly does not occur in retinitis generally.

Ophthalmoscopic appearances are regarded by all the Surgeons as the chief guide to the treatment of the deeper diseases of the eye-ball.

Operations.—All the recognised operations of modern ophthalmic Surgery are performed. Iridectomy is held in Mr. Furneaux Jordan's practice to be the best treatment for glaucoma and glaucomatous disease.

THE LYING-IN HOSPITAL AND DISPENSARY FOR DISEASES OF WOMEN AND CHILDREN.

The Lying-in Hospital was established twenty-one years ago. In the year 1862 two new wings were added, and the premises, which were previously badly arranged and wholly inadequate to the requirements of such an institution, have since been entirely remodelled, and now afford the greatest possible convenience, both to the out-patients and in-patients of the Hospital.

The wards, which were formerly in the attic, badly ventilated, and approached with difficulty, are now brought down to the first floor, and, together with superintendents' and nurses' rooms, occupy the whole of that portion of the building. A bath-room, most essential to any Hospital, has been added on the ground floor. The new portion of the building comprises a consulting-room, waiting-room, dispensary, secretary's office, and board-room (the old board-room having been converted into a ward); a large laundry has also been erected on the ground floor. These alterations have been made at a cost of £1392 19s. 11d. Of this amount £1000 were part proceeds of a bazaar held in April, 1861. The Hospital is now undergoing a thorough painting, whitewashing, and papering.

During the past five years the following preternatural cases have taken place:—

Mal-presentations	104
Premature labour	35
Putrid children	18
Acephalic	2
Total	159

and 12 cases of placenta prævia.

	Born alive. Males.	Females.	Still-born.	Twin cases.	Triplet cases.
In the year 1859	594	465	34	15	0
,, ,, 1860	632	475	29	9	0
,, ,, 1861	666	473	14	12	0
,, ,, 1862	474	557	26	12	0
,, ,, 1863	585	623	33	16	1
Total for 5 years	2951	2593	136	64	1

Sick cases attended in five years, 5001.

The income of the Hospital is derived from subscriptions. The following are the facts of the last ten years:—

Year.	No. of sick cases.	No. of midwifery cases.	Subscriptions.
1853	849	937	£573 8 0
1854	1549	986	596 11 6
1855	799	958	600 6 3
1856	845	1079	420 13 9
1857	908	1129	515 12 9½
1858	937	1205	538 17 0
1859	1294	1093	659 8 9½
1860	1386	1136	705 13 9
1861	787	1153	692 3 3
1862	744	1057	629 8 3
1863	790	1241	739 8 6

Consulting Accoucheur—Dr. F. Elkington. *Honorary Surgeons*—J. Archer, Esq., V. W. Blake, Esq., and W. C. Orford, Esq. *Resident Surgeons*—Dr. E. C. Ashford, Thomas Osmond, Esq., Dr. E. Ortiz. *Resident Superintendent*—A. D. C. Walford, Esq., M.R.C.S.

REVIEWS.

Lectures on Epilepsy, Pain, Paralysis, and certain other Disorders of the Nervous System. Delivered at the Royal College of Physicians in London. By Charles Bland Radcliffe, M.D., Fellow of the Royal College of Physicians of London; Physician to the Westminster Hospital, and to the National Hospital for the Paralysed and Epileptic, etc. Pp. 340. London: Churchill and Sons. 1864.

We have seldom had a more difficult task assigned to us than that of reviewing a work like the present. It is impossible within reasonable limits to give the reader an account of what the book contains. It is difficult without being very tedious to state fairly and in an intelligible manner the arguments advanced by the author in support of his views, and we cannot attempt to write a critical review of the entire work, because it appears to us that many of the conclusions which the author has arrived at are neither justified by the experiments and observations of others recorded by him nor by those which he has himself performed. When we attempt to study carefully the arguments advanced in support of many of the author's deductions we find that these "arguments" frequently consist of mere assertions in the form of an argument, while many of the "facts" are really but the author's own dogmas, which are reiterated again and again in different forms, but not often supported by sound reasoning or by positive evidence. Although the construction of the sentences is most logical, we have in many instances failed to discover what the author really wishes to convey by the words and phrases he employs, and in almost every page we find paragraphs which a careful study of the work does not enable us to interpret. It is the duty of a reviewer to study carefully and patiently the views he attempts to criticise. We have tried to do so, but it is due to the author to state that we have experienced some irritability and much impatience while reading his work, and we must leave it to those who are well acquainted with the book

to judge whether this is due merely to the weakness of our understanding or to the author's want of clearness in expression and to his confusion of ideas.

The views which Dr. Radcliffe seeks to subvert are thus expressed by him, but he does not name the authorities who hold these doctrines in the present day:—"That muscle is endowed with a vital power of contractility; that muscular contraction is the sign of vital excitement in this property; that excessive muscular contraction, whether voluntary or involuntary, betokens excessive vital excitement in this property; and that the treatment required in order to subdue convulsion, or any disorder analogous to convulsion, is one which is calculated to quiet excessive vital excitement."

Starting with the views of Du Bois Reymond, that every nerve and muscle in a state of inaction has its longitudinal surfaces positively, and its transverse surfaces negatively, electrified, he illustrates his own new view by diagrams, in which each muscular fibre is represented as an *elongated cylinder* having a core. The core is supposed to consist of molecules in which the negative electricity is external and the positive electricity internal, while the surface consists of molecules the interior of which is negative and the exterior positive. He says that "in this way, as is seen in Figs. 4, 5, and 6, the longitudinal surface of the fibre will be electrified positively, seeing that it is composed of molecules of which the positive electricity is external; and the transverse surface will be electrified negatively, for this surface involves the exposure of molecules of which the negative electricity is external." Upon referring to the diagrams 4, 5, 6, page 22, it will be seen that a transverse section presents the core of the cylinders electrified negatively as well as a section of the surfaces of the cylinders which are electrified positively, while a longitudinal section also exposes molecules *of both kinds*, and we should think that in such a case there would be very little evidence of electricity either upon the transverse or longitudinal section of the muscle or nerve so constructed. The hypothesis of Du Bois Reymond, from which the author dissents, on the other hand does offer an explanation of the fact, since any transverse section must expose the negative surfaces of his "peripolar molecules," while any longitudinal section must expose the part of the molecules which is electrified positively. Dr. Radcliffe's description of his own hypothesis is much confused, and we beg to recommend the new principles he has discovered in the constitution of electrical molecules to the attention of electricians. The ends of his cylinders which exhibit *negative electricity*, surrounded by the molecules the external surface of which is electrified positively, remind us of the celebrated galvanic rings which were in vogue many years ago, in which a ring of copper was surrounded by a ring of zinc, contact between the two metals being carefully provided in every part. Our author remarks that it is a problem of no easy solution why the molecules or the fibres composed of them should preserve their particular electrical arrangement, but he makes the remarkable suggestion that "it may be, perhaps, that there is some physical constitution in the molecules or fibres not unlike that which exists in magnetic bodies, and which keeps separate the positive and negative elements in these bodies."

The ordinary contraction of a muscle is thus explained by Dr. Radcliffe:—The nerve fibre becomes changed in its electric relations at some part of its course, so that the electric state of the interior and exterior being reversed, a discharge takes place similar to that in the torpedo. The muscular fibres are deprived of their natural electricity by means of this shock in the same way as if it were a discharge from a galvanic coil, and the muscle passes into a state of contraction because the molecules are left free to yield to the *attractive force* which is inherent in them.

The author considers that the relaxed state of the muscle arises from the *active repulsion* existing between the particles in consequence of their being similarly electrified with negative electricity. This *relaxed state*, then, is a *forced condition* due to the "natural electricity" which is absent whenever contraction takes place. *Contraction*, on the other hand, is due to the cessation of the forced and exceptional relaxed condition. Our author thus maintains an opinion exactly contrary to that taught by the great majority of living physiologists, who consider that the *relaxed* is the *ordinary* condition of a muscular fibre, and that owing to some temporary change induced through nervous action the muscle passes into the *contracted* and *exceptional* state. This curious doctrine was not, however, as our author shows, first advanced by him. He quotes in the appendix extracts from a paper by Dr. West, of Alford, written in 1832, one of which was as follows:—"Nervous influence is imparted to muscular fibre for the purpose of restraining its contraction, and the action of the will, and of all other disposers to contraction, is simply to withdraw for awhile this influence, so as to allow this peculiar property of muscular fibre to show itself!"

Dr. Radcliffe adduces many facts which are *not in*compatible with his view, at least in the way in which he has stated them, but he does not remark what vast resistance his "natural electricity" must, according to his doctrine, be sufficient to overcome. He asserts that a muscle contracts because, being deprived of its electricity, it "is left free to yield to the action of the attractive force which is inherent in the physical constitution of the muscular molecules." But, it may be asked, if molecular attraction took place, would not all the particles of the muscle be drawn closer together in every direction, and thus the entire muscle *diminished* in size? But this we know is not the case. Why should this supposed molecular attraction act in one direction only? How can we reconcile with this theory, the fact that, while a feeble current will produce little contraction, an increased current will cause increased contraction in a muscle? How is it, for example, that the fibres of the uterus, after being developed in a *relaxed* and *elongated* state, contract and become shorter and shorter. Is there an abstraction of electricity during the process of parturition? The subject of muscular fatigue presents another difficulty, for if we accept Dr. Radcliffe's doctrine we must suppose that the development of natural electricity at this time is at its height!

Nor does the author, in offering the notion of inherent molecular attraction as an explanation of contractility, attempt to explain why such a marvellously greater attractive force should exist in the case of the molecules of muscle than in the case of other forms of soft and almost fluid matter. Dr. Radcliffe does not, and, we venture to say, cannot, adduce one single instance in which electricity is known to overcome such inherent tendencies, and produce an elongation in any form of matter like that of which muscular fibre is composed. Moreover, his supposition involves an obvious waste of a vast amount of force. Supposing the particles to pull towards each other with a certain measurable degree of force, the "natural electricity" must act in an opposite direction, and must be sufficient not only to overcome this entirely, but to make the muscle five or ten times longer than in its natural or contracted state; so that a great amount of force at the moment of relaxation will be lost merely in neutralising the tendency to contraction. The work performed will be due to the excess of the force of relaxation over that of contraction. According to the ordinary doctrine there is no resistance to overcome, and the whole of the (nerve) force employed is spent in the shortening of a previously relaxed or passive fibre, and it is converted into work.

Again, in asserting that the motor nerve deprives the muscle of its natural electricity, he does not attempt to show *how* this could occur. He offers no observations upon the relation of the nerves to the muscular fibres, nor does he even suggest how they ought to terminate, supposing his supposition to be true.

It does not follow that because there are signs of natural electricity in muscle during a state of rest that this natural electricity is the *cause* of the state of *relaxation*. This is an inference not justified by any facts advanced by the author. In fact, the "doctrine" to us seems to amount to a simple assertion. Natural electricity is manifested in nerve during a state of rest, but the nerve when deprived of it does not pass into a state of contraction. Why does muscle alone of all the tissues when deprived of its natural electricity "yield to the attractive force which is inherent in the physical constitution" of its molecules? Muscle more closely resembles other tissues in the body in its *relaxed* than in its *contracted* state. The relaxed condition is the natural one, and any soft tissue may be said to exhibit a relaxed condition.

The natural electricity may have, and probably has nothing whatever to do with the state of relaxation. The muscle is developed in a state of relaxation, and cannot contract until *after* it has been formed, but if Dr. Radcliffe's doctrine is true, all the muscles ought to be developed in a contracted and shortened state, and their *first action* ought to be *relaxation* and *elongation*.

It by no means follows that if, as there is little doubt, muscular contraction is a physical phenomenon, it necessarily

depends upon the action of the attractive force which is inherent in the particles of matter of which it is composed. For most assuredly there is no other example in which molecules of matter attract one another inherently like Dr. Radcliffe's muscular molecules.

Dr. Radcliffe puts the matter in this way:—Muscular contraction is not a vital but a physical action, and if you admit this you must accept the account which I have given of the physical changes which occur and the explanation I have offered. Physiologists generally will probably accept the first position, but we think few will be inclined to embrace the New Physical Philosophy of Dr. Radcliffe.

The process which physiologists have yet to explain is the *shortening* not the *lengthening* of the muscular fibre. Our author infers that whenever contraction occurs the muscle is deprived of its natural electricity by the action of the nerve. Yet there are cases in which one part of a fibre at death is in a state of firm contraction, while another part of the same fibre is elongated and relaxed. It is hardly probable that the natural electricity should be removed from one part and remain in another part, seeing that both portions have been placed under exactly similar conditions and are structurally continuous one with the other. Rigor mortis seems to result from the hardening or coagulation of the naturally soft and semi-fluid substance of which the muscle is composed, and this shortening which occurs bears no comparison to the shortening which the fibres undergo during contraction.

As is well known, certain modes of death have a special influence in preventing or in retarding the supervention of rigor mortis. Thus in death by lightning the body never becomes rigid. A very similar state is induced during life if any part of the body is exposed to intense cold, and if, after death, a body be kept constantly in motion for a while no rigidity will ensue. If, as Dr. Radcliffe supposes, rigor mortis was but the contraction of muscle relieved from the extending or relaxing influence of its natural electricity, we should expect that the flexors, as the stronger set of muscles, would gain complete sway, and that the body would be bent into a heap, while we know that the limbs retain the position in which they were placed before rigor mortis came on. In fact, rigor mortis seems much more to resemble the process of coagulation, of blood, and tissues, which, during life, are semi-fluid.

General convulsions are believed by our author to be brought about by the defective supply of arterial blood, so that when induced by hæmorrhage or suffocation he considers that the electric condition of the medulla oblongata, which he takes for granted is the nervous centre of the muscular system, is changed simply by the *absence* of arterial, irrespective of the presence of venous blood, and here we meet with the statement that:—"There is reason to believe that one way in which strychnia or brucia brings about spasmodic contraction is by producing a change in the blood which is equivalent to the loss of arterial blood." This view he founds upon some experiments by Dr. Harley which show that when air has remained some time in contact with blood to which strychnia or brucia has been added, it contains more oxygen than air which has been in contact with simple blood, showing that the blood has been prevented absorbing the oxygen.

The four last lectures are occupied with the consideration of convulsions, tremor, spasms, and pain. In each of these cases it has been sought to be shown that, whether we look at the respiratory organs, the circulatory functions, or the nervous system, we discover a tendency to a state of depressed, rather than towards an exalted, vitality; but, like many other writers who make free use of the word *vitality*, our author does not explain what he means by it. In this part of the book Dr. Radcliffe has endeavoured to show the influence which his theory has on his practice. A fatty diet, gymnastic exercises, bromide of potassium, cod-liver oil, phosphorus, and alcoholic stimulants are considered to be of great value, while purgatives have been found by him to be injurious, and zinc is said to produce that peculiar state of system known as tabes sicca, in which all the fluids of the body seem to be absorbed, and a sallowness and bloodlessness of the complexion results.

The author tells his readers that a former work in which he endeavoured to establish the same view with reference to muscular contraction "was only a *confused* mass of thoughts *tumbling* over one another in the *dark*"! This is a bit of thoroughly honest and candid criticism. Some day we hope these thoughts will find their legs, and get a glimpse of daylight.

The Ophthalmoscope: its Varieties and its Use. Translated from the German of Dr. Adolf Zander, by Robert Brudenell Carter, M.R.C.S.E., Fellow of the Royal Medical and Chirurgical Society; with Notes and Additions by the Translator. London: Robert Hardwicke.

The work of Dr. Zander, compiled with the laborious and exhaustive diligence which seems to be peculiar to our German neighbours, contains a minute description of every variety of ophthalmoscope known up to the period of his premature death: his translator has completed the list up to the present day. Thirty-seven ophthalmoscopes, two orthoscopes, or instruments for examining the eye under water, and four aut-ophthalmoscopes, or instruments by which the observer can examine his own eye, are described more or less in detail, and in many instances their mechanical construction, as well as the optical principles on which they act, are illustrated by woodcuts and diagrams. This part of the work is of necessity somewhat dry, and it is scarcely to be expected that it will meet with very general perusal; still it is well worth the careful study of every ophthalmologist who desires to know the nature of the tool with which he works, and he is no good workman who does not. The ophthalmoscope, however, is no longer a mystery, understood by a few specialists alone. It is now extensively used by Practitioners of every class. It has been pressed into their service in the diagnosis of obscure diseases of the brain; its evidence is frequently demanded in courts of law; unless the theory on which it is constructed is properly understood, there is a risk that its teachings may be mis-interpreted, and a certainty that it can never be used with that confidence and dexterity which a thorough comprehension of its principles can alone inspire. We would, therefore, recommend the careful study of this section of Dr. Zander's book to all who make use of this invaluable instrument.

The second section describes the mode of examining the eye with the ophthalmoscope. A few preliminary paragraphs are devoted to the question as to the choice of an instrument. The author is of opinion—as we believe all Surgeons now are—that the large fixed instruments ought to be reserved for the purposes of exact drawing or measurement or for clinical demonstration. This latter we think doubtful, as students cannot too early learn the use of the hand ophthalmoscope. Nothing can be simpler than the ophthalmoscope of Anagnostakis, and for general purposes it is very useful; for more careful examination the instruments of Liebreich, Coccius, or Zehender are to be preferred. Mr. Carter adduces good reasons for adopting that of Coccius. Binocular ophthalmoscopes give a very beautiful picture. Those of Dr. Giraud-Téulon (Nachet) and of Messrs. Laurence and Heisch (Murray and Heath) are both excellent instruments. The directions for examining the virtual erect and the actual inverted image, as well as for examining the eye by lateral illumination, are extremely full and minute, and very clearly expressed.

A section (the third) is devoted to the ophthalmoscopic appearances of healthy eyes. This is a subject which we have reason to believe does not meet with sufficient attention from beginners, and even from many who have had considerable practice. Slight abnormalities or deviations from the ordinary appearances, though compatible with perfect health, may be set down as the result of disease or injury—a mistake which might be followed by serious consequences in Medico-legal cases.

Eighty-four pages are devoted to the ophthalmoscopic appearances of diseased eyes. Our limits will not permit us to say more than that the subject is handled in a masterly way; that the beautiful plates of Liebreich are referred to throughout; and that the translator has brought our knowledge up to that of the present day.

On the ophthalmoscope in its relations to forensic Medicine, the subject of the fifth section, little is as yet to be said. Except in cases of wounds and injuries, its services have hitherto been scarcely available.

The sixth section, on the influence of the ophthalmoscope upon the treatment of ocular diseases, has been added by the translator "in deference to the practical character of the English Medical mind." It contains a warm defence of the beneficial effects of iridectomy in glaucoma, irido-choroiditis, traumatic inflammation, and sloughing ulcers of the cornea; and some useful remarks, drawn chiefly from the results of his own practice, on the subjects of depletion, internal medication, counter-irritation, and local applications.

On the whole this is an excellent book, and will form a valuable addition to the library of all who are interested in the study of ophthalmic disease.

GENERAL CORRESPONDENCE.

THE FATAL ACCIDENT AT WIMBLEDON. OFFICIAL REPORT OF THE CASE OF PRIVATE COOPER.

LETTER FROM SURGEON-MAJOR WYATT, COLDSTREAM GUARDS.

SURGEON-MAJOR WYATT presents his compliments to the Editor of the *Medical Times and Gazette*, and, in reply to his request, begs to enclose him the official account of the circumstances connected with the case of the late Private Cooper of the Coldstream Guards, who was accidentally shot while acting as marker for the volunteers at the late Wimbledon meeting.

The man was brought to the Hospital marquee from the butts, about 3 p.m., on Thursday, July 21, having received the injury a few minutes previously, while crawling on his hands and knees behind the target to pick up some spent leaden bullets which, during the morning practice, had fallen on the ground. The distance was 500 yards only from the firing point, which was on a much lower level than the butts, and the bullet, in its transit, penetrated the pasteboard target, as also about 3¼ inches of the deal support, before arriving at the body of the man, consequently, its momentum, which, ordinarily, would only have been diminished about one-tenth for the distance traversed, had expended a considerable amount of its force by these interventions. It had entered the man's body between the ninth and tenth ribs, just outside their angles, and about two inches from the spine; and having coursed through the left side of the chest, was to be felt prominently protruding between the third and fourth ribs, lying in the intercostal space. It is stated that he was extremely collapsed, and expectorated frothy blood for some time; the dyspnœa was also urgent; pulse scarcely perceptible; and he complained of most intense pain. Considerable emphysema immediately ensued over the front and left side of the chest, so that when a Surgeon arrived from London two hours after the receipt of the injury (who had been sent for on the emergency) he was unable to detect the presence of any bullet on account of the great distension of the integuments which existed. Stimulants, with ice, I understand, were administered; also draughts of tincture of opium and chloric ether. With the view of relieving the pain, some chloroform was also inhaled; but he was unable to sleep during the whole of that night. On the following morning he had much rallied, and was able to take some beef-tea, and subsequently drank iced milk and soda water; a small quantity of wine was also given. The pulse continued very weak and small; surface not quite the natural warmth. The wound was dressed with wet lint only.

(This was the official report furnished me up to the morning of the 23rd, when I arrived at the camp from North Wales, having been telegraphed for on the day previously. Assistant-Surgeon Trotter had visited him as soon as he received any intimation of the accident; but the man was under the charge of Staff Assistant-Surgeon Guinness from the period of the accident, that officer's services having been placed at our disposal by the Director-General of the Army Medical Department for the purpose of taking Medical charge of the detachment of Guards who were employed as markers for the volunteers.)

I found the man lying in a very composed and tranquil state. Countenance somewhat blanched; tongue and extremities cold; pulse 140, small, but not so weak: respirations 44, which were frequently of a spasmodic character, and this, together with hiccup, was more frequent on the day previous, leading to the belief that the bullet had fallen on to the diaphragm. I was informed that he had passed a very quiet night after a full dose of chlorodyne. The dyspnœa was very great, and the whole of the left side of the chest, extending above the clavicle, much distended with air and fluid. There had been no hæmoptysis of any kind since the previous evening, and very little expectoration. The bladder being distended, a quantity of high-coloured urine was evacuated. Considerable ecchymosis was visible under the integuments of the pectoral muscle, and there was one spot especially, which I was informed had been the place where the bullet could be distinctly felt for some little time after the injury. This was dark, and reminded me of the movements of a small child's fontanelle, being raised and depressed with each act of respiration. The left pleural cavity appeared to be much distended, as very little of the ordinary vesicular murmur could be heard except at the upper part of that side. The pain chiefly complained of was behind, on being raised to examine the wound, which was of a valvular character. I ordered that no stimulants of any kind should be given, and the nourishment to be iced milk only; also to take calomel, gr.j.; pulv. opii., gr.ss., 4 times a-day, with a dose of chlorodyne at night. To be kept quite cool, and not to attempt to talk.

On the following day, as he appeared to suffer from flatulent distension, and the bowels had not been relieved since the accident, an enema of castor oil and warm water was employed, but without effect; subsequently a cordial aperient draught was administered: the dyspnœa was not quite so urgent as yesterday. Respirations 30, and pulse 120; emphysema and ecchymosis extending towards the abdomen, the wound looked healthy, with no discharge of any kind. In the evening, as the pulse was fuller, and the bowels still not relieved, a small dose of castor oil, in coffee and lemon juice, was given, and this, although complaining of slight nausea, he retained well. I now carefully examined the rifle range, where the man had been shot, placing a man in a similar position to that occupied by Cooper at the moment of the injury, and taking into consideration the circumstances of his elevated position and the points of deflection from impediments, I came to the conclusion, upon a review of his previous and present symptoms, that it was not at all improbable for the bullet to have impinged against the angle of the upper rib, and so to have glanced partially round the interior cavity of the chest, without wounding the lung, or if so, only at its base; the loss of its momentum accounting for the bullet not having completely penetrated the chest. Being somewhat familiar with gun-shot injuries of the chest, I did venture to hope that the man might have had some escape of this kind, and might not ultimately succumb; but of course, the secondary effects of penetrating wounds of this cavity are often as mortal as the primary; and when a bullet is lodged, it is an undoubted additional element of danger not to be overlooked in the prognosis.

July 25 (four days after the injury).—Bowels only slightly relieved during the night. The enema was repeated on account of the abdominal distension, and this morning he had one copious evacuation, with great relief. Pulse 112, with more force; respirations, 32; tongue coated. The ecchymosis extends considerably down the side, and the pectoral muscle is much bulged out from the effusion beneath it. Great dulness exists on percussion over front of the chest; at the back part, above the seat of injury, there is indistinct bronchial breathing, with some slight respiration. There is an increase of measurement on the wounded side of about one and a-half inch. To take calomel, gr. j.; ext. opii, gr. ½; anti. tart., gr. $\frac{1}{6}$, four times a day, and to continue the iced milk, with no other nourishment. The extremities show no want of circulation or temperature, but he complained much of intense pain in the back, and was placed on a water-bed, which had been generously supplied by the Volunteer Association. He derived great relief from the change, and expressed himself very easy. Some healthy suppuration now appeared from the wound.

26th.—Obtained some sleep after a dose of chlorodyne, but the pulse is more irritable—120—and respirations 24; the integuments are more distended, and the ecchymosis more considerable, the whole of the left side and front of the chest being of a dark blue colour. The dyspnœa is not considerable, but the heart is evidently displaced, and its apex pushed towards the median line; natural breath sounds with bronchophony audible behind at the upper part. To continue the pills, and take cold beef-tea jelly as well as the iced milk.

27th.—Passed a restless night, although taking a large dose of chlorodyne. Bowels freely relieved, and says that he feels quite easy. The heart is evidently more pushed towards the right side than yesterday. Pulse 130; respirations 32. The effusion beneath the external muscles is now becoming quite black.

28th (7 days after).—Slept better last night, dulness is now complete over the whole of the left side of the chest, except for about an inch to the left of sternum. He appears more cheerful, and enjoys the milk and jelly. To diminish the frequency of the pills.

29th.—Pulse 128. Respirations 32 (occasionally spasmodic). The effusion of fluid within the chest is increasing upwards. Bowels inclined to be relaxed. Had an alarming

attack of dyspnœa about 11 o'clock, which was much relieved by dry cupping. The treatment was now changed to decoct. cinchonæ, with sulphuric acid, ether, and opium, and he was ordered to take four ounces of good claret, with beef jelly, and chicken broth cold. India-rubber belts of ice were kept applied to the external parts of his chest. In the evening he felt much relieved in every way.

30th.—Pulse 140, and respirations 40. Emphysema is now diminishing rapidly, and the rupture of the intereostal muscles in front appears to be quite obstructed by coagula (?) so that there is no communication between the interior of the pleural cavity and the external cellular tissues. It is, perhaps, unnecessary to quote more in detail from my case-book, than that he now commenced to improve in every respect; the pulse became stronger, and dyspnœa less, but the dulness on the left side was universal, without any trace of œgophony, and but slight bronchial sounds—as if the lung was much compressed by coagulum, the effusion under the external integuments had also become quite firm and solidified; his appetite improved in a marvellous degree, and his digestion and secretions were good, tongue quite clean, and pulse ranging from 120 to 130. He often expressed his breathing as being very comfortable, and he was quite cheerful, talking of "the Volunteer prize which he carried in his body." He ate a mutton chop for his dinner, which he much enjoyed, with some iced claret.

On August 3 (fourteen days after the injury) he complained of great pain and stiffness of the left wrist and elbow, which were rubbed with a chloroform and opium liniment, and enveloped in cotton wool; this subsided in three days, and during its persistence his appetite and general spirits were good, but I considered the attack suspicious: no change in the chest symptoms.

August 6.—He was not so well, and had passed a restless night, having perspired much. The bowels not having been relieved for three days, a small dose of castor oil was administered; pulse 140; respiration 40; complains of a burning heat in the side, and on the application of the stethoscope, fine crepitation was detected over the lower lobe of the right lung; it was plainly felt by the hand placed against the side; and was most intensely developed. He feels great prostration; and there is frothy adhesive expectoration of a rusty colour. He was ordered strong mustard poultices to the front and back part of that side, and to take decoction of senega, with bark and ammonia, six times during the twenty-four hours; also port wine and beef-tea, which he still enjoyed. The crepitation gradually extended upwards. He was dry cupped, and had hot turpentine fomentations continually applied, which for a short time appeared to arrest the increase; and the expectoration was more free; but the pulse became gradually weaker, and the skin moist and clammy. To take brandy and essence of beef in small quantities frequently.

On the evening of August 8, he was evidently gradually losing ground. Mustard sinapisms and hot bottles were applied to the calves of the legs and to the feet; stimulants were given by teaspoonfuls, and vigorous counter-irritation applied to the chest. But in spite of all remedies, he became weaker, and at last unconscious, and expired at 6·15 a.m. of the 9th, just nineteen days after the infliction of the injury.

Autopsy Thirty-six Hours afterwards.—Rigor mortis not considerable; decomposition rapid; body much reduced; no trace of emphysema now appreciable over the surface of the body, circumference of the chest on the injured side is half-an-inch more only than on the opposite—considerable dark ecchymosis extending from the right margin of the sternum to below the pectoral muscle, down the inner side of the arm to the elbow. The pectoral muscle itself appears much indurated, and its fibres completely infiltrated with patches of coagulated blood, the cellular tissue beneath it being quite detached. The bullet entered about two inches from the spine, between the 9th and 10th ribs, by a valvular opening of the intercostal muscles, the margins of the ribs being quite untouched; it then passed through the base of the lower lobe of the left lung, and escaped near the anterior margin of the upper lobe, wounding the pleura opposite the intercostal space between the 3rd and 4th ribs, between the muscles of which the membrane could be protruded by the fingers; the lower margin of the 3rd rib had been very slightly splintered, but the intercostal artery had not been injured by any small spiculæ of the bone. On removing the pectoral muscles, the fluid within the chest caused this grape-like projection of the membrane to become very evident; it was about half-an-inch external to the cartilages, the left pleural cavity was quite full of coagula loosely floating about in dark-coloured bloody serum, which towards the lower portion was quite thick, the pleural membrane was very florid throughout, and covered irregularly with large flakes of fibrinous-looking masses, some of which were easily detached, others, more firmly adherent, could with great difficulty be separated from the lung, which was compressed to the narrowest possible limit, and pushed in front of the pericardium. The track of the bullet through the lung was found to be patulous, with no appearance of adhesion, and filled with soft dark clots of blood, which escaped readily before the finger. The bullet itself was found lying loose amongst the thick coagula on the surface of the diaphragm close to the spine. The heart was situated to the right of the sternum, and the pericardium (which was quite intact) contained three ounces of turbid yellow serous fluid, in which several flakes of lymph were floating about. The surface of the heart and the parietal pericardium had several roughened patches of soft yellow fibrin upon them, the heart itself being pale and its cavities not distended. The lower two-thirds of the right lung was intensely congested, and there were some soft adhesions to the costal pleura in front.

The sketches enclosed are those of the bullet which was found in the chest, the weight of which is 600 grains, and also of another one which has not been used, so that the precise alteration in form may be appreciated by your readers.

[Mr. Wyatt would be glad to avail himself of this occasion to express his great obligations to those Professional gentlemen on the spot who so promptly rendered their assistance on the emergency of the accident.]

Guards' Hospital, Westminster, August 25.

INDIAN MEDICAL SERVICE.

Letter from Dr. Lionel S. Beale.

[To the Editor of the Medical Times and Gazette.]

Sir,—I send you for insertion in the *Medical Times* some extracts from a letter of a friend in India:—

"A great and flagrant injustice has just been inflicted upon the Indian Medical Service by Government, or rather, as all seem to think, by Sir C——s W——d. Under the title of new rules to increase the pay of the service, the emoluments of almost every appointment open to Medical officers have been seriously diminished. A. B. has drawn up a set of tables showing the amount of loss or gain to men in the general run of the service, which I have forwarded to you by book post, in the hope that you will make use of them in any and every way you can when students inquire whether the *increased (!)* Indian pay does not make the service a very desirable one to enter. It appears strange and unaccountable that Government should persist in treating its Medical Service so much worse than other branches. During the past five years extra appointments have been gradually taken away from Medical officers in India, and we have constantly hoped that the new pay rules which have been so long promised would compensate for these losses. After all this weary waiting the new rules have come; but, as you will see from the tables, they involve loss even to those men who are in the general run of the service; and to the exceptional men who have laboured hard to attain special appointments with extra work and extra staff pay the loss is still greater, all staff allowances being made to cease. We are all utterly disheartened. The service will stagnate and die out rapidly. But why should the death be made so painful? There is plenty of work to be done in India: the banishment and the terrible heat are quite enough to induce men to perform their duties in a perfunctory manner. Why should Government add to these horrors the insult of

giving a stone when we asked for bread? The pay is now below the value of labour in this country. Government is obliged to give much larger rates to the members of other Indian services, even to the uncovenanted service, the members of which are engaged in this country and placed on good pay from the very moment they begin to learn their work; whereas we have to learn our profession first, and do not even count service for pension until we arrive in this country. Please let the Dean and other Professors see these tables."

I append a few of the examples from the tables referred to above, which will explain themselves. The numbers refer to rupees.

	Present Rates.						Under New Warrant.					Gain.	Loss.
	Pay.	Staff.	Head Money.	Total.	Fund Deductions.	Actual Receipts.	Pay.	Staff.	Total.	Fund Deductions.	Actual Receipts.		
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Surgeons-Major of 25 Years' Service in charge of a Corps, Brigade, or Battalion.													
Native Cavalry and H. Artillery:—													
Half Batta { Married / Unmarried }	521	300	—	821	89 / 78	731 / 742	888	—	888	124 / 99	764 / 788	32 / 45	—
Full do. { Married / Unmarried }	563	300	—	863	89 / 78	773 / 784	1093	—	1093	124 / 99	968 / 993	195 / 209	—
Surgeons of 15 Years' Service in charge of a Corps, Brigade, or Battalion.													
Native Cavalry and H. Artillery:—													
Half Batta { Married / Unmarried }	521	300	—	821	89 / 78	731 / 742	677	—	677	109 / 90	567 / 586	—	164 / 156
Full do. { Married / Unmarried }	563	300	—	863	89 / 78	773 / 784	825	—	825	109 / 90	715 / 735	—	57 / 49
Surgeons of 10 Years' Service in charge of a Corps, Brigade, or Battalion.													
Native Cavalry and H. Artillery:—													
Half Batta { Married / Unmarried }	521	300	—	821	89 / 78	731 / 742	640	—	640	109 / 90	531 / 550	—	200 / 192
Full do. { Married / Unmarried }	563	300	—	863	89 / 78	773 / 784	789	—	789	109 / 90	679 / 698	—	93 / 85
Assistant-Surgeons of 10 Years' Service in charge of a Corps, Brigade, or Battalion.													
Native Cavalry and H. Artillery:—													
Half Batta { Married / Unmarried }	334	300	—	634	55 / 48	579 / 585	410	—	410	66 / 55	343 / 354	—	235 / 230
Full do. { Married / Unmarried }	365	300	—	665	55 / 48	609 / 616	451	—	451	66 / 55	385 / 396	—	224 / 220
Assistant-Surgeons above 2 and under 5 Years' Service in charge of a Corps, Brigade, or Battalion.													
Native Cavalry and H. Artillery:—													
Half Batta { Married / Unmarried }	334	165	—	499	52 / 46	446 / 453	286	—	286	52 / 46	233 / 240	—	212 / 212
Full do. { Married / Unmarried }	365	165	—	530	52 / 46	477 / 484	317	—	317	52 / 46	264 / 271	—	212 / 212

In confirmation of what my friend writes, I may say that many of the Medical officers with whom I have spoken lately express great dissatisfaction. The feeling is perhaps in some measure due to the fact that men of average ability who enter ordinary general practice now attain a much larger income within a few years and occupy a far better position than was the case twenty or thirty years ago. A well educated man by investing the sum of £1000 can now almost ensure getting a desirable position as a country Practitioner with a good income from the first. And generally young Practitioners seem to work their way into practice and succeed more quickly than formerly. The fact seems to be that, whereas some years ago the Profession was overstocked and contained a considerable per-centage of half-educated men, there is now work, and good work, for every one, and the general standard of Professional education is far higher than it was formerly. The result of all this is that the best men deserve and obtain better positions and larger incomes than formerly, while our new system of examinations effectually excludes the very idle and dissipated from the Profession. Any one who contrasts Medical students of these days with Medical students of thirty or forty years ago will be easily convinced that a great change for the better is taking place. The number of imperfectly-educated men entering the Profession is diminishing from year to year, and in the course of a few years it is probable that very few individuals who are not well qualified to undertake the responsibilities of practice will be permitted to pass any examining board.

There can, however, be no doubt that these salutary changes have diminished, and are likely to reduce still further the number of candidates for appointments in the public services; and strange to say, in spite of these alterations in the Profession generally, tending to draw men away from the public service, the position and pay of Medical officers, instead of being improved, have been reduced. As a consequence, there are very few men in our schools who will now enter the Medical Department of the Army or Navy. I doubt, however, if mere increase of pay will render the Medical Department of the public services as popular as it was many years since, and I question very much if the sourness, disappointment, and discontent now existing do not arise even more from the unpleasantness of position, rank, etc., than from the small income. I am inclined to think that many of the best men would enter the public service, notwithstanding the pay was small as compared with the receipts of private practice, at least for the early years of their career, if the position of Medical officer was one in which a man could feel himself in all respects on an equality with other officers of the same standing in the service, and in which he was treated with that consideration and respect which every well-educated Professional man has a right to look for. I am, &c.

King's College, London. LIONEL S. BEALE.

MEDIAN LITHOTOMY.

LETTER FROM MR. W. B. STEPHENS.

[To the Editor of the Medical Times and Gazette.]

SIR,—As median lithotomy is on its trial, I beg to add a successful case to those 170 cases recorded in Mr. Allaston's treatise (which I would recommend any one about to operate to peruse).

W. H. N., aged 8, was admitted a patient on March 27, 1864, of the Plymouth Dispensary with severe symptoms of a calculus in the bladder, which was readily detected on sounding him. After some preliminary treatment, on April 8 I operated by the method instituted and described by Mr. Allaston; the bladder was easily reached, and a mulberry calculus (very rough), $\frac{3}{4}$ in. by $\frac{1}{2}$ an inch, weighing 74 grs., having a nucleus of phosphate of lime, was extracted in about ten minutes by gradual dilatation, which I preferred to making a further incision. The urine passed per urethram on the sixth day, and the wound quite healed in fifteen days. Incontinence of urine continued for two months, gradually decreasing. Whilst chloroform was being administered, the boy vomited a piece of slate pencil, and some facetious gentleman observed that the stone had come upwards, which, I believe, was credited by one or two novices. I am, &c.

Plymouth, August 17. W. B. STEPHENS.

HEALTH OF SCOTLAND.—The Registrar-General of Scotland has issued his report for the second quarter of 1864. He has to state that, whatever be the cause, the death-rate in Scotland is on the increase, especially in the towns. It does not seem to depend on the prevalence of any particular epidemic, but there is an increased mortality from all diseases. It is not confined to the second quarter of this year, but has extended over several years. In his sixth annual Report, recently issued, he suggests a doubt whether the introduction of sinks and water-closets into the immediate vicinity of the apartments in which families live, and even into these apartments themselves, may not tend to vitiate the air by their emanations, and be a cause of disease and increased mortality.

OBITUARY.

THE LATE MR. STONE.

We are very sorry to have to record the death of Thomas Arthur Stone, Esq., F.R.C.S., for many years one of the most popular Practitioners at the West-end of London. The deceased was son of Arthur Daniel Stone, M.D., Physician to the Charterhouse, and was born in Charterhouse-square on March 3, 1797. After receiving his education at Westminster and the Charterhouse, he entered the Medical Profession, and became a pupil at St. George's Hospital. Under the guidance and introduction of his uncle, Sir Charles Mansfield Clarke, to whom he always was most grateful for his unvarying kindness, he entered on the practice of Midwifery and diseases of women and children as a Consulting Surgeon, and soon attained great eminence and popularity; but he was averse to specialties, and though he practised as an Accoucheur, claimed equal place as a Surgeon with any of the dignitaries of Lincoln's-inn-fields. He began to lecture on his favourite branch at St. George's Hospital, and his class-room was well filled, but his early and rapid success in practice soon compelled him to give up his chair as a teacher. He was, however, well known among the pupils as a good lecturer, and one who made the lecture hour an hour of pleasing instruction. His practice, in fact, was immense and most lucrative, and brought him into contact with many members of the aristocracy, with whom he had great influence. It must be mentioned, to his credit, that the first fruits of his Professional earnings were devoted towards the maintenance and comfort of his own family. As a Practitioner, he represented that great London West-end school of which Halford and Chambers were conspicuous examples. Without denying the great advances which pathology has made in the last forty years, it may be doubted whether anything could be more certain and successful than their practice in the set of cases for which it was specially adapted, and which were to be met with in abundance amongst those amongst whom they practised. There were two instruments which they wielded to perfection, and which, in any civilised and well-fed community, will relieve more than half the relievable maladies met with. One was the thorough purification of the blood by eliciting a copious flow of bile from the liver and intestines; the other was the relief of any organ suffering under stagnation of blood, by means of local bleedings. It was the writer's good fortune early in life to meet Mr. Stone in several cases well adapted for this line of practice, and in which life was saved by resolution and decision at a critical moment, whilst it might have been lost by a temporising and what is called "expectant" method. But whilst eulogising Mr. Stone's great dexterity in wielding these two important therapeutical weapons, we must observe that he thoroughly recognised the alteration which has gradually obtained in prevalent disease, and which has to a great extent done away with the necessity of bleeding, these late years, and we must not be supposed to underrate his skill in the use of other remedies adapted for a different class of cases. He was thoroughly conversant with that large class of diseases which Sir Charles Mansfield Clarke first discriminated, and in treating which he and his successors have hardly been surpassed. In fact, in our empirical art, there can be no doubt that the man to *do good*, to relieve the greatest number of unpleasant sensations, and hit upon remedies where the diagnosis is obscure, is the busy Practitioner who moves in good society; and of this class Mr. Stone certainly was one—a fact to which his patients have even since his death given strong confirmation in letters received from them. In fact, as society is constituted, we may be certain that any man who is in large practice amongst fastidious and sensitive persons, free to choose their own Medical advisers, must be able to relieve disease, else his occupation would go from him. If we recollect rightly, Dr. Watson, in his celebrated lectures, expressed his regret that the secrets of such a man as Pennington should have died with him. Equally may we regret that one whose experience was so enormous amongst just that class of cases which students have no opportunity of seeing in Hospitals should have left published no record of his professional opinions. The Hospital student sees cases in their advanced and pronounced state, when all pathognomonic signs are developed and diagnosis easy. The Practitioner among the higher circles sees cases from the very first uneasy sensations that arise, and before local changes ensue; and has to give his diagnosis, not from the leisurely percussion, auscultation, and measurement, and analysis of secretions of a man lying tranquilly in bed, but from the first feelings of illness which serve as preludes to the fully-developed malady; and he has to pronounce, not what is, but what is *coming*. This is the true field for that sagacity which is the fruit of natural acuteness and abundant opportunity of observation, and in that field Mr. Stone was as eminent, as he was also distinguished by a genuine, unaffected kindness, which endeared him to his patients. But if he left no published record of his professional work, there is one monument which it will not be easy to efface; and that is, the Charter of the Society for the Relief of Widows and Orphans of Medical Men in London and its Vicinity. This is a society to which the leading consulting Practitioners at the West-end—to their credit be it said—have always given their warmest support. After the death of Sir Charles Mansfield Clarke, Mr. Stone was elected president. He at first declined the proposal, as he was unwilling to follow his uncle immediately in the same office; but he was ultimately persuaded to accept the post; and no man could more efficiently have filled it, both as regards management and the increase of the capital of the Society. No one within the circle of his acquaintance could fail to know his assiduous exertions in public and in private for the benefit of that Society, and in particular for obtaining that charter which now has placed it on the basis of a settled institution. And this was no dignity without work. It is to the credit of the Society that the President and Directors pay the closest and most punctual personal attention to the large number of lamentable cases which come before them. As regards his personal tastes and habits, Mr. Stone was of a robust constitution and fond of shooting, fishing, and active exercise. He had the good fortune to marry in the year 1823 the eldest daughter of the Rev. Robert Gream, of Rotherfield, in Sussex, a lady distinguished no less for her personal beauty than for her great piety and charity, who died in the year 1853. By her he had four sons and four daughters—two of the sons clergymen, another in the law, whilst the fourth, who had intended to follow his father's profession, died of cholera in India. Mr. Stone was ill about five weeks, and died on the 20th inst., at his house in Grosvenor-street. His loss will be heavily felt by his Professional and private friends and patients, and not less by the members of the large charitable society over which he presided so efficiently for years.

MEDICAL NEWS.

University Intelligence.—University of London.—The following are lists of Candidates who passed the respective Examinations indicated:—

First B.Sc. Examination.—Examination for Honours.

Chemistry and Natural Philosophy.

First Class.—Charles Romley Alder Wright (Exhibition), Owens; James Campbell Brown, Univ. Aberdeen and S. of Mines.

Third Class.—William Henry Exall, King's; Charles Graham, University; Albert Kisch, St. Thomas's and London Hospitals.

Bachelor of Medicine.—Preliminary Scientific Examination.

pass examination.

First Division.—*Bushell Anningson, King's College; Frederick Charles Bennett, private study; Edward William Berridge, St. Bartholomew's Hospital; William Turberville Buckle, King's College; Joseph Priestnall Cheetham, Guy's Hospital; *John Reuben Bathurst Dove, London Hospital; Alexander Paull Fiddian, private tuition; William James Garrett, St. Bartholomew's Hospital; *William Betts Giles, Guy's Hospital; Wm. Richard Gowers, University College; George Arthur Kenyon, St. George's Hospital; Albert Kisch, St. Thomas's and London Hospitals; Thomas Richardson Loy, University College; *Jeremiah McCarthy, M.A. Dub., Dublin University; Francis John Marshall, St. Mary's Hospital; Bennett May, Sydenham College, Birmingham; Henry Morris, B.A., Guy's Hospital; Henry Franklin Parsons, St. Mary's Hospital; George Rolph Raine, Guy's Hospital; William Alsept Richards, King's College; *Wm. Benjamin Archibald Scott, University College; *Thos. Claye Shaw, King's College; Frederick Taylor, Guy's Hospital; Geo. Alfred Thomas, St. Bartholomew's Hospital; William Thomas, Queen's College, Birmingham; Wm. Knight Treves, St. Thomas's Hospital; Joseph Williams, St. Thomas's Hospital; Charles Romley Alder Wright, Owens College.

Second Division.—Edward Homfray Addenbrooke, General Hospital, Birmingham; *John Bonus, University College; *Herbert Goldingham Budd, Guy's Hospital; William Richard Cortis, Guy's Hospital; *Stanley Thomas Courtney, St. George's Hospital; Edward Bowles Crowfoot, St. Bartholomew's Hospital; Walter Greene, Guy's Hospital; Frederick Harry Haynes, St. Bartholomew's Hospital; *John James, University College; John Wreford Langmore, University College; Richmond Leigh, Liverpool Infirmary; Gysbert Henry Maasdorp, University College; *Duncan McLachlan Maclure (non-Matr.), Westminster Hospital; Henry Flamank Marshall, Sydenham College, Birmingham; Arthur Walter Read, General Hospital, Birmingham; George Rootes, Guy's Hospital; Edward Hepburne Seccombe, King's College; Frederick Charles Shaw,

* Chemistry and Botany only.

St. Bartholomew's Hospital; Joseph Wm. Smith, King's College; Herbert Lumley Snow, Queen's College, Birmingham; James Reginald Stocker, Guy's Hospital; John Sanderson Wyman, General Hospital, Birmingham.

EXAMINATION FOR HONOURS.

Chemistry and Natural Philosophy.

First Class.—Charles Romley Alder Wright (Exhibition), Owens College; George Arthur Kenyon, St. George's Hospital.

Second Class.—Henry Franklin Parsons, St. Mary's Hospital; Wm. Jas. Garrett, St. Bartholomew's Hospital.

Third Class.—William Knight Treves, St. Thomas's Hospital; Albert Kisch, St. Thomas's and London Hospitals.

Biology.

First Class.—Wm. Richard Gowers (Exhibition), University College; Henry Franklin Parsons, St. Mary's Hospital.

FIRST M.B. EXAMINATION.

PASS EXAMINATION.

First Division.—Francis Bateman, St. Bartholomew's Hospital; Stephen Wootton Bushell, Guy's Hospital; Thomas Cole, St. Bartholomew's Hospital; Henry Greenway Howse, Guy's Hospital; James Pearson Irvine, B.A., University College; Frederick Barham Nunneley, University College; Charles William Philpot, King's College; Thomas Claye Shaw, B.A., King's College; George Christopher Tayler, St. Bartholomew's Hospital; John Burges Welch, King's College.

Second Division.—Arthur Bayley Adams, London Hospital; John Augustus Ball, Guy's Hospital; Marcus Beck, University College; Chas. Berrell, King's College; Other Windsor Berry, Charing-cross Hospital; Francis John Buckell, University College; Henry Clothier, University College; George Eastes, Guy's Hospital; Charles Kelly, King's College; John Lloyd, Queen's College, Birmingham; Charles James Hardy Smith, University College; George Owthwaite Spencer, University College; Arthur Taylor, Guy's Hospital; Thomas Pickard Warren, Guy's Hospital; John Williams, University College.

Excluding Physiology.

First Division.—John Pearson Hughes, University College.

Second Division.—Henry Hargreaves Birtwell, St. Thomas's Hospital; Julian Augs. Michael Evans, University College; John Spencer Ferris, King's College; Ralph Gooding, B.A., King's College; John Grimes, King's College; John Wickham Legg, University College; George Hunt Orton, St. Bartholomew's Hospital.

Physiology only.

First Division.—Thomas Robinson Glynn, St. Bartholomew's Hospital; Henry Charles Hilliard, Guy's Hospital; John Harward Hooper, St. Thomas's Hospital; Arthur George Mickley, Guy's Hospital; Ebenezer Fulham Turner, Guy's Hospital; Thomas James Woodhouse, St. Thomas's Hospital.

Second Division.—William Hugh Aldersey, Guy's Hospital; Walter Anstice Harvey, St. Bartholomew's Hospital; Arthur Trehern Norton, St. Mary's Hospital; Charles Read, University College.

EXAMINATION FOR HONOURS.

Anatomy.

First Class.—Jas. Pearson Irvine (Exhibition and Gold Medal), University College; John Burges Welch (Gold Medal), King's College.

Second Class.—Frederick Barham Nunneley, University College; Henry Greenway Howse, Guy's Hospital.

Physiology, Histology, and Comparative Anatomy.

First Class.—Henry Greenway Howse (Exhibition and Gold Medal), Guy's Hospital; Jas. Pearson Irvine (Gold Medal), University College; George Christopher Tayler, St. Bartholomew's Hospital.

Organic Chemistry and Materia Medica and Pharmaceutical Chemistry.

First Class.—Stephen Wootton Bushell (Exhibition and Gold Medal), Guy's Hospital; Charles William Philpot (Gold Medal), King's College; Frederick Barham Nunneley, University College; James Pearson Irvine, University College.

Third Class.—Thomas Claye Shaw, King's College.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—LICENTIATES IN DENTAL SURGERY.—The following gentlemen, having passed the necessary Examination, received their Diploma in Dental Surgery on Monday, August 1, 1864:—

Henry James Virgin, Oxford; Anthony Percy Reboul, Albert-street, Islington; Warwick Hele, Cheltenham; John Clough Clarke, Nottingham.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, August 18, 1864:—

Edward Monro Spooner, Blandford, Dorset; John Lightbody, Kirby Moorside, Yorkshire; Frederick John Cropp, Park-road, Clapham, S.; Francis Henry Wickham Taylor, Cottage-green, Camberwell; Thomas Henry Greene, Saffron Walden.

The following gentleman, also on the same day, passed his First Examination:—

William Harris Butler, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BATEMAN, FREDERIC, M.D. Aberd., has been appointed Physician to the Norfolk and Norwich Hospital.

COOMBS, WILLIAM G., M.D. St. And., has been appointed Assistant Medical Officer to the Dorset County Lunatic Asylum, near Dorchester.

CURRIE, Mr. T., has been appointed Assistant and Apothecary to the County and City of Perth Infirmary.

DAVIES, J., M.R.C.S. Eng., has been appointed Assistant House-Surgeon to the Stockport Infirmary.

HARRIS, J. S., M.R.C.S. Eng., has been appointed Medical Officer for the Workhouse of the Blything Union, Suffolk.

KNIGHT, J. SLADEN, M.D., M.R.C.P. Lond., has been appointed Consulting Physician to the Rochester, Chatham, and Strood Dispensary.

MONCKTON, DAVID H., M.D. Lond., has been appointed Hon. Assistant-Surgeon to the 21st Staffordshire Rifle Volunteer Corps.

MOWAT, GEORGE, M.R.C.S. Eng., has been elected House-Surgeon and Apothecary to the Swansea Infirmary.

THOMAS, GRIFFITH R., M.C.C.S. Eng., has been elected Surgeon for Out-patients to the Swansea Infirmary.

DEATHS.

FIELD, JAMES, M.D., at Kew-road, Richmond, Surrey, on August 23, aged 82.

MACNAY, THOMAS F., M.D. Durham, at Marden, near Whitley, Northumberland, on July 17, of Newcastle-on-Tyne.

M'DONALD, CHARLES FRANCIS, M.R.C.S. Eng., at Sailor's Gully, Australia, aged 40.

PANTON, JOHN, M.D. Glasg., at Bath-street, Glasgow, on July 28.

ROBERTS, JAMES LEWIS, M.R.C.S. Eng., of Aberdare, Glamorganshire, at Grove's-end, on August 15, aged 54.

ROBERTSON, DANIEL GRANT, M.D. Edin., at Melbourne Hospital, Australia, on April 16, aged 23.

STONE, THOMAS ARTHUR, F.R.C.S. Eng., at 30, Grosvenor-street, W., on August 20, aged 67.

THOMSON, ROBERT DUNDAS, M.D. Glasg., F.R.S., of York-terrace, Regent's park, N.W., at Dunstable House, Richmond, on August 17, aged 53.

ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE.—The following scholarships have been awarded at the close of the summer session of 1864:—W. J. Garrett, W. Square, W. J. Tattersall, C. D. Batt *proximo accessit.*

COUNTY AND CITY OF CORK MEDICAL PROTECTIVE ASSOCIATION.—At a meeting of the Association, held 13th August instant, at the Royal Cork Institution, the following resolution was unanimously adopted, ordered to be printed, and circulated:—"That we hail with much gratification the defeat, in the House of Commons, of the 'Indian Medical Service Bill,' a measure inimical to the real interests of the profession, from its attempt to provide an inferior class of officers, in room of the well-educated and well-tried Practitioners, who have hitherto obtained commissions in the service. That we feel it to be of the utmost importance to our brave soldiers and sailors, whose lives and limbs depend on the quality of their Medical attendants, that the *very best* and most competent Surgeons should alone be selected, and we consider that competitive examinations, which will test the *practical* knowledge of candidates, the best mode of selection for efficient Medical officers. That the thanks of the Profession at large are due to Mr. Hennessy and the other members of the House of Commons who at the tail of the Session so nobly stood forward, and so successfully opposed the Bill. That in upholding the interests of our brethren of the army and navy, we hope to advance the prospects of young men entering the Profession, and to stimulate them to go forward in the prosecution of their studies with that zeal and efficiency which must eventually entitle them (and those already in harness) to a higher estimate of the services which they are called upon to perform, and secure for them the fulfilment of the terms of any and every Warrant which may be issued by the authorities, and thereby save the amount of dissatisfaction justly prevailing with regard to the breach of faith in the Warrant of 1858."—Signed, by order, RICHARD CORBETT, M.D., Chairman; CHARLES ARMSTRONG, M.D., Hon. Sec.

ST. THOMAS'S HOSPITAL.—On Monday last a General Court of the Governors was held at the International Hotel, St. Thomas's-street East, Alderman Sir J. Musgrove in the chair. The clerk read the Report of the Grand Committee on August 4, relative to the duties of the treasurer, and recommending that for the future all uninvested moneys, etc., should be placed in the Union Bank of London, in the name of the treasurer and committee; the cheques drawn upon it to be signed by the treasurer and a certain number of the members of the committee. The Report contained a schedule of the alterations recommended to be made in the duties of the new treasurer. It also urged the appointment of a resident officer, to be called a superintendent, and defined his duties. As regarded Mr. Adams's charges, the committee felt that although the size of the Medical and Surgical staff was somewhat larger than was necessary, they did not think it expedient at present to make any alteration. The Report having been adopted, that of August 12 was read. It exculpated Mr. Whitfield, the Apothecary, from the charge of having accused the Governors of supplying inferior drugs, wines, and brandies

to the Hospital, and entered into explanations showing that those articles were really good. With regard to the allowance of beer and coals to the Apothecary and matron, they had been made to them ever since they had been there, and their salaries were low in consideration of these perquisites. The committee, however, disapproved perquisites, and recommended that they should be commuted for a money payment annually. The Chairman moved the adoption of the Report, which was seconded by Mr. W. Tite, M.P. Mr. Adams said he thought the system condemned in the Report had been done away with, but on visiting the Hospital recently he found that it was still carried on. He found that in 27 weeks in 1863 the matron had 109 gallons of beer, and that during the same period of 1864 she had 179 gallons. The fact was that she had brought her family in, and they had gone on in the same manner that she did. Mr. South said she had only the same number that she had when she was elected. Mr. Adams said he was aware of that. He then gave notice that he would move a resolution for the immediate abolition of these perquisites. After a long discussion, in which Mr. Tite, Mr. Baggallay, and others took part, the Report was adopted. Mr. Tite then moved the appointment of a superintendent. It would, of course, imply an increased expense, but what that would be must be settled at that meeting. The Chairman said the person to be elected was not to be a Medical man. The motion was agreed to. Mr. Adams then moved his resolution, but, as the Chairman showed him that the Report accomplished all he desired, he withdrew it. Mr. Tite gave notice that at the next meeting he would move that Mr. Baggallay be made an extra member of the Grand Committee for life. The Chairman said that he had known Mr. Adams for many years, and he believed that what he had done had been for the best interests of the Hospital. A vote of thanks to the Chairman closed the proceedings. The recommendation of the committee, that Mr. Whitfield's perquisites should be commuted for an annual money payment, is certainly a good one. As a mode of remuneration it is more accordant with the professional status and position of the Medical officer.

Brussels Registration Returns.—On January 1, 1864, the population amounted to 184,932 ; 89,971 being males and 94,961 females. During the first six months of the present year there have been registered 3095 births, of which number 763 were illegitimate. During the same period there were 861 marriages celebrated and 9 divorces pronounced. The deaths amounted to 2673; 1391 being males and 1282 females. More than a fourth of the deaths were of children under a year old, and a sixth between 1 and 5 years. Between 20 and 30 furnished about one-tenth, 134 out of the 227 which occurred during this last period resulting from phthisis. Between the years of 5 and 10 was the period in which occurred fewest deaths. The four principal Hospitals contained patients at the beginning of the year 1176; 6711 were admitted during the six months; 6087 were dismissed; and 610 died.

Gas Fumes in Pertussis.—M. Guèrard has brought under the notice of the Paris Hospital Society the new treatment which has been proposed for pertussis, consisting in the inhalation of the fumes arising during the purification of gas. The pulverised substance, chiefly composed of lime and oxide of iron, which has served for this purification, is spread on the floor of one of the courts of the factory, in order that it may be revivified and re-employed. During this process large quantities of ammonia and volatile oils are disengaged. It was found that children suffering from the chronic stage of pertussis, and who happened to be living in this part of the factory, were so rapidly cured that numbers of others suffering from the affection were sent there, and in many of these marked success attended the experiment. M. Guèrard learnt these facts when called in to inspect the factory, in consequence of the neighbours having complained of the nuisance caused them by these fumes. He suggests that the beneficial influence which they seem to have exerted in these paroxysms of pertussis may be analogous to that derived from caustic ammonia in fits of nervous asthma. M. Blache stated that he had met with two cases of children who had been sent to this factory, only with the result of aggravating the paroxysm; and several trials which he had made with some of the residue of gas purification, obtained from the factory, had proved of no avail. M. Bergeron, having knowledge of a case in which rapid amelioration had ensued, sent three other children to the factory, without any benefit being derived. M. Barthez had met with two cases in which the remedy seemed very efficacious, the disease being cured in the one in three, and in the other in four and a-half weeks from its outset, therefore in a period of time far shorter than usual. M. Roger stated that he had been called to a child who had contracted pneumonia while employing this remedy, due probably not to the gas inspired, but to exposure to the cold current of air of the factory. In two other cases he had found the remedy quite inoperative after a fortnight's trial. Nevertheless, he obtained a large quantity of this residue, liberated it in one of the wards of the Children's Hospital, and daily exposed many children, in whom the disease was on the decline and unattended with fever, to these fumes; but no benefit whatever resulted, and M. Roger is of opinion that at this stage of the disease simple change of air is a far preferable remedy.

Poisoning by Solutions of Atropine.—Dr. Rehn relates the case of a child 3 years of age to whom he was called twelve hours after it had drank some solution of atropine, supposed to contain about one-sixth of a grain. Emetics and antidotes at so late a period were out of the question, and he contented himself with combating the exalted condition of the nervous system which ensued by exhibiting powders containing one-eighth of a grain of opium, five of which were taken before tranquil sleep, that ended in complete recovery, ensued.—*Journal für Kinderkrank*, 1864, No. 1.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. W. Stuart Munro.—We shall be happy to receive accounts of the cases.

A. F. W. J.—Whether he can do it or not we don't know, but we think it would not be expedient.

Mr. J. H. Kirby.—Write to Dr. Embleton, Registrar of the University of Durham Medical School, Newcastle-upon-Tyne.

The present arrangements of the *Medical Times and Gazette* do not admit the publication of Births and Marriages.

Considerable excitement has prevailed in St. Marylebone regarding the successor to the late Dr. R. D. Thomson, as Medical Officer of Health. Four candidates have been mentioned—Dr. Richardson, Dr. Hassall, Dr. Murchison, and Dr. Whitmore. The scientific reputation of the three former gentlemen is well known to the world; the last, we believe, claims to be a practical, not a scientific man, and his friends affirm him to be a successful Practitioner, a good man of business, well acquainted with the homes of the working-classes, and possessing considerable popularity with the Vestry. All we can say is, that the Marylebone Vestry is a public body, discharging an important trust, and that if they choose an unfit man the disgrace will fall on their own heads. As for charges of canvassing during Dr. Thomson's lifetime, we hardly know whether they are true, and, if they are, do not blame the candidates. We do blame the Vestry if, as is said, a large body of them pledged themselves to Dr. Whitmore before knowing what other candidates they should have to choose from. We would respectfully urge them to choose the most *independent* man; for, let them lower the salary as they may, every farthing of it will be wasted if they have a man who is afraid of small shopkeepers, milkmen, butchers, and owners of low house property.

A Cheap Spirometer.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—May I ask any of your readers to inform me where the "Cheap Spirometer," described at page 132 of the *Medical Times and Gazette* of July 30, 1864, is to be obtained? The author of the paper (taken from the *Canada Lancet*) speaks of one having been made by the "York Glass Company of England," but does not give the address of that Company.

I am, &c.

37, Wellington-square, Hastings. C. B. Garrett, M.D.

*** The Spirometer is invented by Dr. Bowman, Editor of the *Canada Lancet.*

Factitious Urticaria.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Allow me to lay before you the particulars of a case of "factitious urticaria," which presents points of some interest.

Frederick T——, aged 20, was admitted into Samaritan ward the 20th of January, 1864, under the care of Mr. Poland. Two years and a-half ago his skin began to itch, and on scratching it he noticed that it swelled. This was particularly the case at night. Some months after this he had gonorrhœa, and took copaiba, and a few months subsequently he contracted syphilis, followed by sore throat and skin affection, but no buboes.

He was admitted into Guy's with secondary sores and an ulcer on the right leg. After a few days he drew attention to the itching, and on examination it was found that with very moderate pressure, even the smooth round extremity of a silver catheter would write his name upon his arm with perfect distinctness.

The experiment was made on various parts of his body. On the face, forehead, scalp, neck, arms, and trunk it was perfectly successful. On the hands, legs, and pinna of the ear it was not successful, though the patient said that a blow on the back of the hand would produce a wheal. I gave him a blow there that produced a bruise, but nothing more.

He informed me that after bathing in the sea his feet were so much swollen that he was unable to put on his boots for more than an hour.

Its course runs thus:—On being scratched the skin becomes white, quickly surrounded by a red halo. The white spot begins to rise and the halo to spread, both attaining their perfection in from two to three minutes, after which the redness quickly disappears, leaving the wheal for an hour or an hour and a half, when it, too, vanishes.

This case is interesting as showing that the supervention of the syphilitic poison had no power to modify the previous skin affection; that, in fact, two different actions were going on at the same time.

It was not attributable to copaiba, which is stated by Willan as one cause of what he styles "urticaria evanida," for at the time of his first noticing the itching he had had no disease for which copaiba would be likely to be administered.

Dr. Gull has drawn attention to this state of the skin, attributing it to an increase of irritability of the skin, producing contraction of its muscular fibres. I am, &c.

Guy's Hospital. JAMES MILWARD.

SMITHYMAN *v.* WILSON.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Having read your account of Smithyman v. Wilson, I feel it my duty to reply to your concluding observation respecting myself.

When Smithyman came to my Surgery I examined his shoulder, and found the humerus dislocated, and moreover am quite certain that the dislocation was one of old standing; and, beyond the possibility of contradiction, the dislocation had not taken place within a few days. I used my utmost efforts to reduce the dislocation, assisted by Mr. Rd. and Mr. A. Freer.

On the following morning I met Mr. Wilson, and was on the point of speaking to him when he passed by me rudely. I could not, after such conduct, speak to Mr. Wilson on the subject. I do not know how any conversation between me and Mr. Wilson could have prevented an action, but Mr. Wilson's rudeness to me prevented my speaking to him on the subject.

If you intend to convey that it was my duty to consult Mr. Wilson about Smithyman's case at the time that he (Smithyman) came to the Surgery, I must simply differ with you on that point, and claim the right of consulting any Surgeon in whom I have confidence.

I gave evidence on the trial, and received an assurance from the friends of the defendant that they were perfectly satisfied with the manner in which my evidence was given, and that it was strictly correct and impartial. I am, &c.

High-street, Stourbridge, August 20. THOS. MASSEY HARDING.

*** Our readers will see that our correspondent's assertion that he found Smithyman's dislocation to be an old one is an expression of his opinion, and nothing more. It will be remembered that twelve days had elapsed since Mr. Wilson saw the case. During the attendance of Mr. Wilson, we repeat, the arm could not have been dislocated, as the man in his evidence stated that he could put his elbow close to his side. That the arm became re-dislocated after Mr. Wilson saw the patient is rendered highly probable by the fact that it again slipped out after it was set by Mr. Baker. We repeat our regret that Mr. Harding did not communicate with Mr. Wilson on the subject. These gentlemen are not only Surgeons of the same town, residing within a very short distance of each other, but are Surgeons to the same public institution; and we think Mr. Harding should have made it his business to communicate to Mr. Wilson the condition in which he found Smithyman's arm, and have inquired from him the previous history of the case. We think he should not have left this to the chance of a *rencontre* in the street. Mr. Harding was, of course, at liberty to call any Surgeon he pleased in consultation; but the ordinary rules of courtesy to, and consideration for, a brother Practitioner and colleague are not optional. If Medical men disregard what is due to members of their Profession, how can they expect that the public will observe it? If Medicine is a Profession and not a trade, its Practitioners must show to each other, in such matters at least, that they are actuated by the spirit of the old French motto—"*Noblesse oblige.*"

FOREIGN DEGREES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Many English Practitioners of good standing desire to obtain the degree of M.D., and would be willing to pass a stiff examination to obtain one. This, however, cannot now be done in the United Kingdom, and thus many worthy men are unable to obtain that degree because they cannot reside at a University now, on account of private practice, and were for one cause or another prevented from spending their student days there. There are several Universities abroad which do not require residence for their degrees. Several of these are thought well of in England, but the expense and trouble of a long journey, say of seven days, is almost as great an obstacle as residence. It appears to me that if one of these Universities would hold an examination once a year in England, and grant the degree to gentlemen who have satisfied their examiners, a great boon would be conferred on many well-educated Practitioners. A degree thus obtained would be well worth having, and would, I doubt not, be very popular with the Profession.

Should this suggestion meet with favour, some combined effort might be made to carry it out. I am, &c.

August 13. L.R.C.P. LONDON.

GENERAL PRACTITIONERS UNDER FALSE PRETENCES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Allow me to second the views of D. P. Morris, M.R.C.S.E. and L.A.S., on the subject of "General Practitioners under False Pretences." My observation from a long period of practice as a general Practitioner has been that those having the qualifications of D. P. Morris and myself have only administered to their own vanity and assumption in getting any Professional graft upon the old stock of their *alma mater*. In fact, cannot the above qualifications administer the Profession in all its branches? and do we not expose ourselves to the ridicule of the pures when, by taking up their titles, we still follow our quondam habits of practice, knowing at the same time the folly of attempting the course of those men who have from their commencement acted consistently as pure Surgeons or Physicians? I was one of those who never would take the F.R.C.S. of the College of Surgeons, because I deemed that those men who passed for the fullest qualification at their time were entitled to take rank of that new distinction without its retrospective slur. But the public, as D. P. M. says, do not trouble their heads about these matters as long as they are assured that a man has really studied for his vocation and passed his ordeal in the walk he takes. Since the title Doctor has such a charm for us, why should not all men qualified to practise medicine have that title conferred on them, as, indeed, the public do confer it, and as it is accorded to the Surgeon of a regiment or a gaol, etc.?

I am, &c. AN OLD M.R.C.S. and L.A.S.

EARLY EXTRACTION OF THE PLACENTA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—It is an ancient axiom that "meddlesome midwifery is bad," undoubtedly a very good and salutary rule; but, at the risk of being thought rash, I must leave your readers to give a trial to the slight interference I am about to suggest, and I think they will admit that it is both judicious and warrantable. Whilst attending practical midwifery at a large maternity Hospital it often occurred to me that the hæmorrhage which takes place in the interval (if only a few minutes) between the birth of the child and the expulsion of the placenta, although not sufficient in ordinary cases to create alarm, was, nevertheless, considerable, and if it could be prevented or reduced in extent the subsequent depression and exhaustion of the patient might be materially diminished. On entering into practice I determined to try "immediate extraction" of the placenta; during the last few expulsive pains I directed the nurse to place her hand on the fundus uteri, to follow it down, and immediately the child was born to grasp it and press it firmly into the pelvic cavity. As soon as I had divided the funis and removed the child, I at once commenced making steady traction at the root of the cord (pushing the forefinger into the substance of the placenta, and using it as a hook in those cases where the cord seemed likely to give way), having due regard to the pelvic axes, and I found the placenta came away easily, and the patient lost scarcely any blood: less than two minutes elapsed from the birth of the child and the removal of the placenta. I have now adopted this plan of extracting the placenta as quickly as possible in 2000 cases; I have never seen a case in which my efforts have failed, nor have I seen any evil consequence arise; on the contrary, I have saved my patients an ounce or two of blood, and myself a great deal of time (a desideratum in a large practice).

In some cases I believe the placenta is wholly, and in the majority of cases is partially, detached by the last contractions of the uterus; and this separation exposes many large vessels from which an escape of blood must take place if, as most of the authorities advise, we allow the uterus a rest, and wait a few minutes before we attempt extraction of the afterbirth, or leave it to be expelled by the natural powers. The uterus is, in most cases, exhausted, and I maintain that we ought not to allow any interval to elapse, but exercise artificial contraction by the nurse squeezing the organ during the time we are engaged in removing the child; and I feel convinced that if Practitioners will only be induced to try what at the first blush seems rather a bold proceeding, they will rarely fail. In my own neighbourhood, my Medical brethren admit that "immediate extraction" saves a material amount of blood, and it stands to reason that this must be advantageous to the patient. I am, &c.

CELER ET AUDAX.

A PLEA FOR THE ST. ANDREW'S DEGREE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I congratulate the Profession, as well as the Royal College of Physicians, London, on the decision of the latter body not to grant the licence except after examination, since an opposite course of action would have been a fruitful source of bickering, strife, and pretension in our midst—an opinion warranted by experience. So long as the Apothecaries' Hall certificate for the practice of Medicine is obtainable, and some holders of such (more particularly in London) will keep shops and sell drugs, so long would an *ad eundem* admission to the College of Physicians be an anomaly. Doubtless, one object of the memorialists for obtaining the licence was the imagined right of the licentiates to use the title of Dr., notwithstanding the expressed prohibition of such by the College. (See *Medical Times and Gazette* of September, 1863). It is this illegal act of so many members of our Profession that has provoked the contempt of other members of our cloth, as well as the ridicule of the public, when they are informed on the subject. To the same result tended the late attempt on the part of the College of Physicians, Dublin, to establish the claim of their licentiates to the right and title of Dr. But, Sir, the *bond fide* possession of a Medicine Doctor degree, obtained after proper examination, leads to a totally different result in the public mind, as far as my social and Professional experience enables me to judge. And now I crave permission, as one who obtained my degree at the University of St. Andrews after nine written and five *vivâ voce* examinations, well and fairly conducted by some of the best of examiners, with instruments, bones, etc., etc., before them, emphatically to protest, once for all, against that ignorance or prejudice which animates men, whether of our own Profession—like Mr. David P. Morris—or of any other, to regard that degree as of no value, and as having been obtained at a cheap rate, both with respect to money and labour. It avails nothing for these gentry that up to about 1830 the Universities of St. Andrews and Aberdeen conferred their degrees in Medicine, often without examination, on payment of £25 or £28, and therefore that some worthless fellows possessed them. In 1827 or 8 a Royal Commission was appointed to inquire into the state of the Scotch Universities, and it was ordered after their report that no degree should henceforth be granted without examination. Oxford and Cambridge in those days, as far as Professional opportunities went, were much in the same state, as no teachers of Medicine existed. But, Sir, men of the age of Mr. David P. Morris ought to be better informed than he is upon what was and what is required of candidates for the degree of M.D. of the University of St. Andrews. Let me inform him that for the most part the candidates have been members of the Profession possessed of the M.R.C.S. and L.S.A. qualifications, some of them were members of the Royal College of Physicians, London, and others Fellows of the Royal College of Surgeons, London. Such have been required to undergo the ordeal of written and *tete-à-tete* examinations, and, when thought worthy of the degree by the examiners, have been promoted to the honour. With regard to the amount of general education of the younger graduates, all I can say is, that I knew many of them as having passed the matriculation examination of the University of London in the first class, myself amongst the number. I know two of the junior and senior scholars of my College being there, whilst the second and third class man of our year is now our conceited brother graduate of the University of London. I believe, Sir, that the Profession and the public were benefited by the opportunity afforded to senior members of the Profession of obtaining the highest

rank by an examination, theoretical and practical, well-conducted, for some kept up their studies and others brushed up their forgotten knowledge, having the aim before them. The public do not like to see very young men possessed of the degree of M.D., but I have as yet to learn that where in the possession of a gentleman of education and experience, it does not carry all the *prestige* due unto it in a social sense. As far as my conversation with clergymen and others goes, they look upon the degree of St. Andrews as a thorough good one for Practitioners, and equal to the M.D. Lond. of the man fresh from the schools. Certainly, I think the M.D. and F.R.C.S. qualifications are more suitably possessed by men in the services or better class practices. There are many other points in Mr. Peter Morris's letter that deserve severe animadversion, because of the language used with regard to the degrees possessed by some of the best members of our Profession; but I forbear. Would that the corporations were all abolished, and members of the Medical Profession made so after an uniform curriculum of study and the same standard of University examinations throughout the United Kingdom. *En passant*, let me say that many members of our Profession who stand as rejected candidates for St. Andrews' M.D. degree (in my year one in four, and at a previous time more than half) are doubtless among its detractors. Trusting my degree is "the badge of well-merited academic labour,"

I am, &c. JOANNES, M.D. St. Andrews.

ACCIDENTAL HÆMORRHAGE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—One morning during the late hot weather, between the hours of eight and nine, I received a message requesting me to attend a lady, whose usual Medical adviser was from home. On my arrival at the residence of the patient I found her to be suffering from a smart attack of accidental hæmorrhage.

She supposed herself to be at the commencement of the eighth month of pregnancy, and found the discharge begin without any pain, or, indeed, any exciting cause, about 7 o'clock a.m. She was naturally pale and thin, and her countenance and pulse gave but little indication of the loss she had suffered, for on examining the bed and inquiring particulars of the nurse, there could be no doubt of the loss of a very large quantity of blood. On examining per vaginam the os was found to be just sufficiently dilated to admit the tip of the finger, thick and unyielding. The patient said she had no pains, merely an aching of the body. Still every now and then the finger distinguished a certain pressure, and I was satisfied that the head presented. Being quite clear as to the necessity of hastening delivery, I gave a dose of ergot, and as soon as the slightly increasing pains made the membranes tense I ruptured them, a considerable quantity of water escaping.

As I was some miles from my own house, I sent a messenger for the instruments, that I might be in readiness to deliver by forceps or craniotomy should I find turning contra-indicated or impracticable. The rupture of the membranes had no effect in checking the flow of blood, although cold vinegar and water was freely applied to the body with hand pressure, whilst I also continued my attempts to assist the dilatation of the os uteri. The vagina was also syringed copiously with cold water, the dose of ergot repeated, and stimulants freely administered. By the assiduous use of these means the os uteri became sufficiently dilated to admit of an attempt at delivery, but I felt quite satisfied that the patient's strength was now too far reduced to justify the operation of turning. I determined, therefore, to perforate and deliver by craniotomy. I had the instrument in my hand for the purpose, and was just about to begin the operation, when the patient's own Medical attendant arrived and took the management of the case. I very briefly told him the measures I had taken, and what I was about to do. He sat down to examine, and without any reply proceeded to turn. I stood where I could see the countenance of the patient very distinctly, and soon saw such a change in it that I suggested to the operator that her strength would not bear the struggle. He persevered, and still the countenance of the poor lady changed; I once more suggested the withdrawal of the hand, and the use of the perforator; but still the struggle went on. At last he secured a leg and brought it down, and with some necessary assistance from me completed the turn; but, as is often found in practice, the uterus strongly enclosed the neck, and a further strenuous effort was required to complete the birth of the head. Brandy and ammonia were freely resorted to, sinapism to the pit of the stomach, a continued supply of fresh air by open windows and the use of the fan. But the symptoms of distress rapidly increased, and death shortly closed the sufferings of the unfortunate patient.

I wish to place this case on record for the purpose of eliciting the opinions of your obstetric correspondents on the employment of forcible delivery in exhausted conditions of the system.

On referring to the works of the following writers:—Ramsbotham, Rigby, and Ingleby—I find great reliance is placed on the practice of rupturing the membranes, and obtaining a complete discharge of the liquor amnii. But from my own experience I am led to suppose that something will depend on the extent to which the placenta has been detached. Where but a small portion of that organ has been displaced, I can easily suppose that the contraction of the womb following the discharge of the waters will be efficient; but where more largely or, perhaps, entirely detached, efficient contraction is less likely to ensue. I have seen a sufficient number of cases of uterine hæmorrhage to convince me that, though different patients bear the loss of blood unequally, yet that, in forming an opinion as to the propriety of operative interference, the quantity of blood lost is a most important element in the calculation. I have on many occasions sat for hours by the bedside of females, expecting death every moment, who have eventually recovered; but they have been cases where certainly I did not venture on drawing so severely on their little stock of strength as must be done in the operation of forcible delivery. In the present case, I still think that the quieter mode of delivery proposed by me would have given at least a better chance of life.

I am, etc., A SUBSCRIBER.

THE INDIAN PRESS ON THE NEW MEDICAL WARRANT FOR INDIA.

The general press of India seem to be unanimous in condemning Sir Charles Wood's Warrant. We extract the following from the *Delhi Gazette* of July 7 and the *Times of India* of July 23:—

(From the *Delhi Gazette*.)

Facts are stubborn things, and we cannot disguise from ourselves the truth that the more we examine the Warrant the more it appears to us to have been framed with a view to the degradation of that service which it professes to support and uphold. Sir John Lawrence himself has marked his disapproval of the scheme in some of its minor details by giving addenda to the new Medical Warrant immediately on its promulgation. During his protracted career in India he had no doubt many opportunities of learning the value and sterling worth of the Army Medical service in this country; and we trust that he will not remain passive in a matter so deeply affecting the chances of promotion, etc., in the Medical Department, nor allow so useful and deserving a class of the community to be unfairly dealt with.

We deeply regret that Sir Charles Wood should have shown such an utter disregard of the claims of the old Medical service in India as to forward for acceptance a scheme which is in detail the most illiberal and unfair that could have been prepared.

He has clearly been "robbing Peter to pay Paul," and has by every means in his power debarred Her Majesty's Medical officers, with the exception of those Assistant-Surgeons who might, by good fortune, obtain the temporary charge of British regiments or brigades from receiving extra emolument. Well aware is he that Medical officers can seldom be spared from their duties, and, as a consequence, unless Surgeons can obtain leave, their juniors can never hold those charges. We do not believe that he considers he has done the Medical Department a service by the promulgation of his new scheme, but if he does we will show him where he has failed.

The pay of an Assistant-Surgeon in the late Company's service on first coming to this country was Rs. 286-10, and perhaps for two years he drew nothing more, as that time had to be spent in doing duty in a regiment under a Surgeon and making himself familiar with Indian diseases. There were few Assistant-Surgeons who, after the first two years out here, were not removed from their subordinate position and placed either in Medical charge of a native corps or some other independent situation. Now, the staff allowance prior to the 15th instant for Assistant-Surgeons in separate charges, excepting batteries of Artillery, was Rs. 165 per mensum; that, added to the regular monthly stipend of Rs. 256, gives a sum total of Rs. 421, the amount drawn under the old rules by Assistant-Surgeons over two years' service. The present scheme allows Rs. 317 to Assistant-Surgeons under five years, and Rs. 335 beyond that period and up to the time that the Medical officer is entitled to the relative rank of Captain, which is after six years' service. The *difference*, therefore, between the pay of Assistant-Surgeon (over two and under five years) prior to and after the promulgation of the Warrant is obvious—the one drawing Rs. 421, the other only Rs. 335.

Again, there was a general order extant which sanctioned the full staff allowance of Rs. 300 per mensem to Assistant-Surgeons over ten years' service; now, as all Assistant-Surgeons of that standing were certain in those days to obtain independent charges, they not only drew their pay, Rs. 256, but the additional full staff, which made it up to Rs. 556 monthly. As Assistant-Surgeons are now not likely to get charge of British regiments and brigades of Artillery, even after ten years' service, they can have no prospect of receiving the Rs. 150 staff allowance granted under those circumstances by the new rules; therefore, in every particular the junior Medical officers of the Indian service are worse off than heretofore.

True, while they were drawing after two years' service their Rs. 421, the Assistant-Surgeons of the Queen's service were supposed to exist on the miserable pittance of Rs. 286, even though their time had more than doubled that of their brother Medicos. This was consequent on their being debarred virtually from holding lucrative appointments, as their services were always required with their regiments.

Surgeons holding the relative rank of Major are perhaps (?) sufficiently remunerated by receiving the pay of that rank, but as a Major when in command of his regiment receives a command allowance of Rs. 400 per mensem, we think that Surgeons (who are the heads of the regimental Medical staff) are fully entitled to their old allowance of Rs. 300 staff, which would be but small compensation for their heavy responsibility. In the matter of withdrawing the staff salaries from Surgeons, Sir Charles Wood has acted unjustly, and we doubt not there are few Surgeons in her Majesty's service who would not rather do duty in Timbuctoo, or any other out-of-the-way place than serve in India on the present rate of pay—as allowed by the new Warrant! The above remarks relative to staff allowances apply equally to Surgeons-Major.

It is evident to every one that the Secretary of State for India has increased the regular pay of Assistant-Surgeons from the clippings of staff allowances formerly granted to Surgeons and Assistant-Surgeons while in separate charges, and, if the truth were known, he has solved his difficulties by the two simple rules of subtraction and addition!! The new Medical scheme is nothing more nor less than a bait to tempt young men to enter the Medical branch of the army; and Sir Charles Wood's promise, that a final decision connected with the future provision of the Medical officers in India will be communicated hereafter, must be valued at the same rate as all his other promises; and we would urge upon young graduates, who may be tempted to enter the Medical department of the army, to pause before they take the fatal step!!! They will do well to remember that every one looks forward to enjoying in his old age rest, and a competency; but should they expect that this will be their fate, judging from affairs as they at present stand, they will, without doubt, be sorely disappointed.

Let no one jump into a deep and running stream unless he can swim, for of a certainty he will be drowned; let no Medical Graduate be "foolhardy" enough to venture his life and talents in a country like India unless he has a better assurance than the present of being able to lay up for himself a provision for his after years; he must look to his chances of promotion, noting well that no hopes whatever are held out to him of holding the appointments of Deputy Inspector-General and Inspector-General, which have hitherto been the well-earned rewards of men who have spent the best part of their life in India. We infer from the absence of all mention of superior grades in the present Warrant, that they are to be allowed to lapse; and, if so, we will unhesitatingly assert that the treatment of the old Medical officers is illiberal, and in direct opposition to the original guarantee of Parliament! Certain advantages of rank, pay, and promotion were promised to the Medical officers in India on their first joining the service, provided their duties were regularly and honestly performed. No one will say that those gentlemen have failed to carry out their part of the compact; but we can require no better proof that Government has broken faith with them than the perusal of the unfair and unsatisfactory scheme now before us. We cannot believe that the new Medical Warrant was framed by Indian officers for the benefit of India, and trust it was not plotted by the Horse Guards for the destruction of the Indian service, though we know that it has been a sore thorn in their side for some time past, and we have heard from very good authority that their name was used as a plea for not increasing the pay of the Indian Doctors as it would compel them to improve the pay of their own, and ensure their keeping up their department in complete working

order. Nothing, we should say, could well be worse than the position of the Medical Department of Her Majesty's service, if we are to judge from Medical journals and the advertisements lately issued by Dr. Gibson; and as an opening was now given to attract well-qualified men to this country, it is a pity the authorities had not known better how to avail themselves of it. We trust other influential members of the press will go hand in hand with us in advocating the claims of the Medical officers; otherwise we fear this useful body of public servants will have small chance of obtaining the rights which have been so often promised and so long withheld; and we cannot but hope that Sir John Lawrence will now exert his influence on the side of justice and liberality, and that ere long such alterations and additions will be made to the Warrant as will satisfy those to whom it has as yet been only a source of anxiety and discontent.

(From the *Times of India*, July 23.)

The general impression in England, as in India, was, at first sight, that the alterations conveyed in the despatch were, on the whole, fair and liberal. In some points the service will, doubtless, gratefully acknowledge that it is so—more particularly that portion of it granting higher pay while on furlough; but a great injustice has been perpetrated to the whole service, and to a large number of individuals in particular, by the recent alterations made in the salaries of the different ranks, and the abstraction of all head-money and staff allowances. Below we give a table showing the differences caused in the amount of the salaries of the regimental officers of all grades. The calculations being based upon the Bombay Army List, as it stood on the 31st March last, may, we presume, be taken as showing a fair average of the numbers of each grade in Medical charge of native regiments, as also of those juniors who are attached to regiments on general duty.

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According to the above table, which we believe to be perfectly correct, except that we have made no mention of horse allowance to officers in charge of cavalry regiments, which, though granted by the Governor-General, was not allowed by Sir C. Wood—thus, according to his scheme, making the balance of Rs. 345 against the service, instead of what is here shown as in favour of it—it will be seen that the rates of pay have been so re-adjusted as to allow of a surplus of about Rs. 135 being distributed between forty-nine officers! This is not a very large sum, and is ridiculously insignificant, considering all the trouble and correspondence which it has entailed upon a hundred officials, including Sir C. Wood himself. Even this scrap has not been at all proportionally divided, for, as will be seen by the above table, a few are slightly enriched by a heavy sacrifice made by the majority. The Surgeons-Major holding regiments are so few that the profits they derive do not materially affect the division; and in two years more when all those now under six years' service will have passed through the two lower grades, it will be found that the benefits they now derive will be lost to the service, and to themselves—that they will, in fact, proportionally and substantively lose, so that at first they will gain only Rs. 12 per mensem over what they would now, under the old rate of pay at a full batta station, ar about Rs. 1 per mensem at half batta; and, finally, that when absorbed into the main gulf of injustice, they will lose, after ten years' good service, Rs. 104 or Rs. 115, according as they are stationed within or beyond the limits of two hundred miles of the Presidency. It is difficult to conceive by what process of calculation Sir C. Wood has transposed the figures representing the pay of so many grades, as to make the total of the new so nearly accord with that of the old scale. Was it worth while to take so much trouble to gain so little? From the disparity in the distribution of profit and loss to the different ranks, one would be inclined to think that chance had more to do with the results attained than reason—as if all the numbers had been put into a hat and pulled out three or four at a time, as the various grades had to be provided for. Anyhow, if the object in view had reference to inducing first-class men to enter the service, the scheme is likely to fail most signally; for bad and unjust as the scale is with reference to the regimental Medical officers, it acts far more injuriously upon those holding staff or civil appointments.

We had prepared a table of these, but there are sundry items of emolument attached to some of the appointments with which we are not sufficiently acquainted to allow of our framing one strictly accurate in every particular; and we therefore think it better to give only general results, premising that greater accuracy would only show a greater loss to the service.

On a reference to the Army List we find that there were on the 31st March last, eleven Surgeons-major, seven Surgeons, and thirty-five Assistant-Surgeons, in the civil or military staff of the army. The total loss upon those appointments is nearly Rs. 2500 per mensem. Out of the Surgeons-major, seven lose while four gain: out of the Surgeons, three lose and four gain. Among the Assistant-Surgeons, thirty-two lose and only three gain! When to all this is added the profit made out of the retrenchments from the pay of Surgeons in charge of British regiments or brigades of artillery, ranging in each charge between Rs. 200, and Rs. 350, it can scarcely be denied, that so far from the prospects of the service having been improved, the change is most decidedly for the worse.

The change which was required, and which the service had every right to expect, was that its members should draw the pay of their respective charges, as well as the pay of their rank, in the same way as officers of all other branches of the service, engineers, artillery, staff, or local, are entitled to do. If such a principle of payment is bad, why adopt it with reference to such an overwhelming majority of officers? If it is good, why not extend it to the Medical branch of the service? Why make such an invidious distinction as to exclude it, and it alone, from what is only considered a right by the rest of the army? Not only does the commanding officer of the regiment draw a staff salary, as also does the adjutant and quartermaster, who undoubtedly hold responsible posts, but even every "doing-duty" officer, as he is called, who has no responsibility whatever put upon him. Are the Medical officer's duties less onerous, less responsible, or less satisfactorily performed than those of the other officers forming the regimental or other staff? Is he worse educated, or drawn (if properly treated) from a lower rank in life? Does he not share the dangers and privations of war equally with all combatant officers?—and does he not undergo far more anxiety, responsibility, and fatigue in times of pestilence? Why, then, should he be put upon a lower level in any one item? Why should his just claims be ignored to the position in the service and society (as it too frequently is) to which both her Majesty's commission as well as his own birth, education, and habits of thought, fully qualify him? Of one thing the Government may be very certain—viz., that until the Medical Department of the army is put upon a proper footing as regards their relative position with the other departments, few, if any, well-educated gentlemen will be found to seek admission to it.

Experience has already too well proved of how slight security is Her Majesty's sign-manual held in the hands of an all but irresponsible Minister; and we strongly urge upon the Professors and other members of the Medical Profession in England, to recommend all their students who may wish to become candidates for employment in the army, whether of England or India, not to do so until not only shall all their rights in regard to position and pay be ceded to them, but until they are placed beyond the arbitrary diction of the Horse-Guards, or the caprice of a Minister, by being guaranteed by a special Act of Parliament. Medical men, though almost altogether unrepresented in the House of Commons, have it, nevertheless, in their power to enforce this; and until they do so there will be no security to those who are beguiled by the fair promises held out to them when the nation is in trouble, and their aid cannot well be dispensed with.

COMMUNICATIONS have been received from—

Mr. J. King; Mr. T. Carter Rockham; M.D.; A. B.; Homo; A Regimental Surgeon; Mr. H. R. Bell; Mr. John H. Evans; Mr. B. Lumley; Mr. B. Barrow; Dr. J. Sladen Knight; Surgeon-Major Wyatt; Dr. F. Bateman; Dr. George Fincham; Mr. J. Z. Laurence; Mr. J. H. Kirby; Mr. T. Massey Harding; Apothecaries' Hall; Mr. Charles J. Fox; Mr. Callender; A Surgeon to the Bengal Army; Mr. W. B. Stephens; Dr. W. Stuart Munro; M.D. Edin.; Alpha; Dr. D. H. Monckton; Dr. Robert Howard; Mr. S. Booth; A. F. W. J.; Mr. W. A. Robinson; A General Practitioner Victimised; Celer et Audax; Dr. Dudfield; Cork Medical Protection Association; Dr. John Struthers.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 20, 1864.

BIRTHS.

Births of Boys, 1048; Girls, 903; Total, 1951.
Average of 10 corresponding weeks, 1854-63, 1681·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	724	727	1451
Average of the ten years 1854-63	629·6	610·7	1240·3
Average corrected to increased population..	..	..	1364
Deaths of people above 90	..	1	1

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa
West ..	463,388	..	3	9	3	7	10	29
North ..	618,210	6	9	7	2	3	15	57
Central ..	378,058	..	14	4	1	2	6	32
East ..	571,158	3	23	10	2	16	19	70
South ..	773,175	6	2	8	1	8	21	54
Total ..	2,803,989	15	51	38	9	36	71	242

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·928 in.
Mean temperature	59·6
Highest point of thermometer	78·1
Lowest point of thermometer	42·3
Mean dew-point temperature	48·2
General direction of wind	N. and N.E.
Whole amount of rain in the week	0·00 in.

APPOINTMENTS FOR THE WEEK.

August 27. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

29. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital 1½ p.m.; Samaritan Hospital, 2½ p.m.

30. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

31. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

September 1. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

2. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATIONS.

King's College Hospital.—The following Operations will be performed on Saturday (to-day) at two o'clock:—

By Mr. Henry Smith—Amputation of Thigh (two cases).

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The process for this preparation is founded upon the observations of Dr. Ellis and others, that good white wine forms an excellent menstruum for Pepsine. Instead, however, of digesting the calf's stomach in the wine, as recommended by Dr. Ellis, the Pepsine is eliminated, and then in the pure state dissolved in the menstruum. Thus prepared, it is an agreeable, slightly acidulous wine, which retains its activity unimpaired, and a teaspoonful of which contains a dose of Pepsine in a form that will be palatable to the most delicate stomach.

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it requires simply to be boiled with milk; and to thicken Beef-tea, Sauces, Soups, &c., it is found to be invaluable.

Diabetes.—Blatchley's Bran Biscuits,

prepared according to Dr. CAMPLIN'S prescription, are perfectly free from starch and sugar, very nutritious, and easily digested. See Camplin on "Diabetes," third edition. Price 1s. 6d. per lb.; or in boxes at 5s., 10s., and 20s. each.

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Anderson's University, Glasgow.—The

WINTER SESSION will commence on the FIRST TUESDAY of NOVEMBER.

The fees for all the Lectures and Hospital Practice required of candidates for a diploma amount to £40.

St. Thomas's Hospital Medical School.

SESSION 1864 and 65. A General Introductory Address will be delivered by Dr. Clapton, the Dean, on SATURDAY, 1st OCTOBER, at 3 o'clock p.m., after which the Distribution of Prizes will take place.

To enter, or to obtain Prospectuses, the conditions of all the Prizes, and further information, apply to Mr. Whitfield, Medical Secretary, the Manor House, St. Thomas's Hospital, Newington, Surrey, S.

Manchester Royal School of Medicine

and SURGERY, FAULKNER-STREET (behind the Infirmary).—SESSION 1864-65. The WINTER TERM will commence on MONDAY, OCTOBER 3rd, when the Introductory Address will be delivered by Mr. Stone, at twelve o'clock.

WINTER LECTURES.

Physiology—By Mr. Turner and Mr. Smith.
Descriptive Anatomy—By Mr. Lund.
Practical Anatomy—By Mr. Alfred Godson, M.B. Cantab.
Chemistry—By Mr. Stone.
Principles and Practice of Medicine—By Dr. William Roberts.
Principles and Practice of Surgery—By Mr. Southam.
Anatomy, Physiology, and Pathology of the Eye—By Mr. Hunt and Mr. Lund.

SUMMER LECTURES.

Obstetric Medicine—By Mr. Greaves.
Pathology—By Dr. Morgan.
Materia Medica—By Mr. Somers.
Forensic Medicine—By Mr. Morley Harrison.
Botany—By Mr. Grindon.
Practical Chemistry—By Mr. Stone.

Hospital Practice at the Royal Infirmary, where Clinical Lectures on Medicine and Surgery are regularly delivered by the Physicians and Surgeons of the Institution.

SCHOLARSHIPS.—In addition to prizes for general proficiency and Certificates of Honour, Three Scholarships for perpetual students will be offered for competition—one of £20, for third years' students; one of £15, for second years' students; one of £10, for first years' students.—Further particulars may be obtained from Mr. Southam, 21, Lever-street.

August, 1864.

Prizes in Materia Medica and Phar-

MACEUTICAL CHEMISTRY.—The EXAMINATION for the SOCIETY of APOTHECARIES' ANNUAL PRIZES in MATERIA MEDICA and PHARMACEUTICAL CHEMISTRY will be held at the Hall of the Society, on WEDNESDAY, the 19th, and FRIDAY, the 21st of OCTOBER, at 10 a.m. to 1 p.m., viz., Wednesday for Writing, and Friday for *viva voce*.

The Prizes consist of a Gold Medal, and a Silver Medal with a Book.

Gentlemen being Medical students will be eligible as candidates for such prizes who shall have commenced the Third Winter Session of their Medical study. Candidates must send a written notice to the office of the beadle of their intention of competing for the prizes on or before the 7th day of October. By order of the Court of Assistants,

R. B. UPTON, Clerk to the Society.

Apothecaries' Hall, August, 1864.

The Drs. Power will resume their

CLASSES for the COMPETITIVE, PASS, and PRIMARY EXAMINATIONS on MONDAY, AUGUST 29th.

The Drs. Power receive Resident Pupils.

Junior Medical College, 32, Queen-square, Bloomsbury, W.C.

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Friends' School, Croydon,
March 14, 1862.

Messrs. Wheeler and Wilson,

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I am, yours truly,
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ORIGINAL LECTURES.

A CLINICAL LECTURE
ON A CASE OF
ANEURISM OF THE THORACIC AORTA.

By GEORGE T. FINCHAM, M.D., F.R.C.P.,
Physician to the Westminster Hospital.

The case, gentlemen, to which I wish now to call your attention is one for which, unhappily, the art of Medicine can do but little in the way of cure. It is one of aneurism of the thoracic portion of the descending aorta. You must not, however, imagine, because the Physician is sometimes powerless to cure, that his ministrations, therefore, are without value. He can often do much to palliate symptoms and relieve suffering—to promote that *euthanasia*, that painless death which the Roman emperor so earnestly desired. Nay, more than this; even though the Physician be powerless to alleviate, it is no small thing for him to be able to say, and that with certainty, that a patient is suffering from an inevitably fatal malady, especially where death, as in the case which we are now considering, is likely to be sudden. We know not what good may be done, what evil averted, by knowledge such as this. Time may be given to the sufferer to disentangle complicated affairs, and to make arrangements necessary for the peace and happiness of a family. I need scarcely say how immense is the gain to have the opportunity of preparing for his last great change.

The case is as follows:—J. J., a painter by trade, was admitted into the Westminster Hospital, on November 9, with the following symptoms:—He told us that he had constant severe pain in the chest, "shooting through to the back." This pain was much aggravated on swallowing solid food, and on those occasions felt to pass, as the morsel descended, from a point above the top of the sternum to the pit of the stomach. The pain was also increased on his turning on his left side, and we found that firm pressure on the sternum or between the shoulders produced the same effect. He had occasionally a feeling of nausea, but he rarely vomited; he had slight cough, with a scanty expectoration of mucus, and he felt occasionally faint on walking. His tongue was slightly furred. The pulse was 100, of moderate power, and beating with uniform strength at both wrists.

As regards the history of the case, we learnt that for the previous six or eight months J. J. had had the pain in the back and chest, and that this had been gradually increasing up to the time of his admission into the Hospital; that he had had cough for about two months, at first with yellowish expectoration, but that he had never spit blood; we found, too, that he had lost much flesh.

Such were the symptoms on admission as mainly gathered from the patient himself. Of what malady where they the indications? And here I would remark that it is a wise plan in making a diagnosis of a case to learn all you can first from the general appearance, and then from the symptoms as described by the patient himself, before proceeding to the examination of the more special physical signs—before using the hand and the ear. It is a good exercise of the reasoning faculties to do this, and moreover it begets a habit of applying our physiological and often anatomical knowledge to the elucidation of the nature of disease. But this by the way. What, then, did we consider that this man was suffering from, judging from the general symptoms? The first thing that suggested itself was that there was some disease of the œsophagus, or of the cardiac end of the stomach. Pain in swallowing and a certain amount of obstruction there certainly were, but the description of the pain and discomfort did not exactly correspond with what is generally observed in cases of disease in these organs; the pain was felt during the whole course of swallowing. Now, as a rule, if the discomfort is felt high up, just where the pharynx merges into the œsophagus—*e.g.*, in scirrhus of this portion of the tube—it is not felt low down; and, *vice versâ*, where there is obstruction of the cardiac extremity of the stomach, the pain is felt in this situation, and not also at the top of the sternum. Here, however, the pain was described as accompanying the passage of food during the whole length of the œsophagus. Moreover, there was nothing like the frequent vomiting so constantly present immediately after swallowing, when the cardiac end of the stomach is the seat of obstruction. Under these circumstances, therefore, it seemed probable that there was some growth, some tumour compressing the gullet from without along a considerable portion of its course, and that there was no mischief either in the tube itself or in the cardia.

In this doubtfulness we proceeded to the physical examination of the chest, and from this we gained much additional information. Now, the first point which struck us was that whereas the left side of the chest was quite as resonant on percussion as the right, the breath sounds were notably feeble; whilst on the right side the breathing was exaggerated as if to make up for the deficiency. How was this to be accounted for? Was the feeble breathing on the left side due to fluid effused into the pleural cavity? or was it due to air in the same situation? To neither; and this for the simple reason that the side was neither over dull nor over resonant on percussion. Had the feeble breath sounds depended upon fluid, the side would certainly have been dull; had it resulted from the presence of air, it certainly would have been over resonant. The diminished breathing was therefore dependent on some other cause. Scattered tubercle was suggested, but this idea was negatived by the absence, on the patient's admission, of any moist râle, and by the perfectly healthy condition of the opposite lung. We came then to the conclusion that the feeble breathing was due to something preventing the free passage of air through the left main bronchus. Thus, if a person had accidentally got something into the trachea, a cherry stone or a piece of money, and it had passed into one or the other of the main bronchi, the same phenomena would manifest themselves in the corresponding lung. There would be natural resonance on percussion, and at the same time feeble breath sounds. So, again, any tumour compressing externally one or other of the main air tubes, and so narrowing its calibre, would produce the same effect; and this last we considered was the state of things in the case now brought before your consideration. There was something externally compressing the left main bronchus sufficient to prevent the free access of air into the corresponding lung.

At this stage of the investigation, then, we had evidence of the compression of two intra-thoracic canals; of the œsophagus, as shown by the pain and difficulty of swallowing; of the left main bronchus, as proved by the deficient breath sounds of the left lung, its resonance on percussion remaining natural. The inference, therefore, was that we had to do with an intra-thoracic tumour, a view confirmed by the pain in the back and chest, increased on pressure, and by the cough and scanty expectoration. We had, however, another step to make. Having diagnosed an intra-thoracic tumour, we next had to make out its nature. What was it? Now intra-thoracic tumours are, in the immense majority of cases, either malignant growths, *e.g.*, at the root of the lung, or else aneurisms of the aorta; and we came to the conclusion that it was the latter for the following reasons:—

In the first place, aneurisms are more common. Secondly, the duration of the symptoms was against the notion of malignant growths. Had this man had cancer of the root of the the lung for several months, there would probably have been much greater distress; there would have been more cough, more general irritation of the lung; but thirdly and mainly, additional physical signs pointed directly to aneurism. Thus, although the heart was heard and felt beating in its natural position with normal impulse and without murmur, its sounds were also distinctly audible over the greater part of the right side of the chest, over which percussion was natural, and the breathing, as was mentioned before, was exaggerated. Its tissue, therefore, was not physically capable of transmitting the heart's sounds freely. But more than this: over the cartilage of the fifth rib on the same side a distinct pulsation was perceptible; this pulsation extending itself gradually, as the patient remained under observation, over the whole side of the chest in front. In addition to this, a distant but unequivocal systolic murmur, quite distinct from the heart's sound, was audible, its maximum intensity being in the third intercostal space, about midway betwen the right nipple and the sternum. Thus, then, in addition to the general evidence of intra-thoracic tumour, we had special signs leading us to the conclusion that this tumour was aneurismal. We inferred also that the aneurism was in the descending aorta, and not at the arch, partly from the general signs and partly from the fact that there was no difference in the radial pulse of the two sides. Had the arch of the aorta been involved, the pulse would in all probability have been feebler at one or other of the wrists.

With respect to the progress of the case, from the date of

the patient's admission until the present time (December 4), there has not been much change in the symptoms. He has suffered much from the pain in the back and chest, opiates only giving temporary relief; the cough, too, has been more troublesome; the difficulty of swallowing, however, if anything, has been somewhat relieved. The only additional symptom has been an occasional harsh croupy sound on deep inspiration.

As regards the prognosis of this case, I need scarcely say that there is no hope of recovery. The aneurism will probably give way, and death will take place from hæmorrhage almost, if not quite, suddenly.

This patient died on December 29, a few hours after having vomited a large quantity of blood. The following were the appearances seventy hours after death:—Heart somewhat larger than natural, with much fat on its surface, and its muscular tissue over pale. The mitral valves were thickened; the aortic natural, but the aorta itself was dilated at its arch, and its lining membrane roughened with atheromatous deposit. Immediately below the arch there was an aperture about the size of a pea, in the posterior wall of the aorta, leading to a sacculated aneurism about the size of an orange, and filled for the most part with recent coagula. This sac was attached to the bodies of the fourth, fifth, and sixth dorsal vertebræ, all of which were corroded at the point of contact. At the same level with the opening into the sac was another aperture, about the same size, into the œsophagus, through which the blood had found its way shortly before death. The left bronchus was found, at its commencement, pressed upon and narrowed by the tumour, with two or three of its rings partially absorbed. There did not appear any communication between the sac and the air passages, although the trachea and larger bronchial tubes were filled with clotted blood. The lungs and other organs were healthy.

Baron Larrey.—The following letter appeared in the *Daily Telegraph* of August 31:—"Sir,—I have perused with much delight the interesting memoir of the late celebrated Surgeon, Baron Larrey, in your impression of Saturday last; and your generous remarks on the present condition of the British Medical service must be highly appreciated by every member of the Profession, as they ought to be by the army and by the public generally. Permit me to say that the sum bequeathed to the illustrious military Surgeon was ten times the amount of that mentioned by you in your excellent article. It was 100,000 f., the largest legacy, I believe, contained in the Emperor's will. This error—which may have been a typographical one—I feel sure you will be pleased to correct. The monument at Tarbes, Larrey's birthplace, is not the only one erected to him by his grateful and admiring country; for a statue in bronze, by David d'Angers, the famous sculptor of those of Ambroise Paré and Bichat, cast from the cannon taken in the different great battles in which this heroic Surgeon immortalised himself, was raised to his memory in Paris, by subscription; and Marshal Soult, Duke of Dalmatia, then Minister of War, decided upon its being erected in the *cour d'honneur*, the grand square, of the Hôpital du Val de Grace. Larrey is represented in his uniform, pressing to his heart the will of Napoleon, on which is inscribed the high eulogium of the Emperor, 'C'est le plus vertueux et le plus honnête homme que j'aie connu.' Whilst attending the service at the Military Hospital during the three glorious days of July, 1830, amongst other interesting incidents connected with those events, M. Larrey himself told me, when assisting him in dressing the wounds of one of the grenadiers of the Garde Royale, over whom he delighted at that moment to throw the protection of his popularity, that on the eve of some of the battles during the Empire, in which many of these very wounded had been engaged, he had frequently slept in the tent, wrapped in the same cloak, with Napoleon.—I am, Sir, yours, &c., F.R.C.S. Aug. 30."

Mortality in the Cities of the United States in 1863.—In his registration returns for Boston, Mr. Apollonio furnishes the following comparative statement of the ratios of mortality:—

Cities.	Population.	Deaths.	Ratio.
Providence	55,000	1,215	1 in 45·26
Baltimore	250,000	5,546	1 ,, 45·07
Philadelphia	620,000	14,220	1 ,, 43·60
Boston	182,000	4,699	1 ,, 38·73
New York	900,000	24,196	1 ,, 37·19

THE OPTICAL DEFECTS OF THE EYE.

A COURSE OF LECTURES DELIVERED DURING THE SUMMER OF 1862 AT THE

Surrey Ophthalmic Hospital,

By J. ZACHARIAH LAURENCE, F.R.C.S., M.B. Univ. Lond.,
Surgeon to the Hospital.

(Continued from page 193.)

III. Pathological Optics.

Now, gentlemen, that you thoroughly understand the leading optical properties of the normal eye, I may at once proceed to investigate the departures from that standard. To have attempted to have done so before would have been simply to have imposed upon you a delusion. I shall, however, even now not think any time ill-spent. if I from time to time again recur to our former optical studies, when any particular defect of vision presents any unusual complication.

There are two states of the eye which we must carefully distinguish. That in which it is directed to distant objects, its state of rest, and that in which it is accommodated for a near object. The former condition is a fixed constant one, the latter varies with every degree of convergence of the eyes. We shall therefore, with Professor Donders, propose a system of classification founded upon *the refractive condition of the eye when in a state of rest*. The following table exhibits this system (a):—

The Eye in a State of Rest (= crystalline at its minimum curvature; optic axes parallel).

1. Eye.	2. Parallel rays are focused—	3. Far-point.	4. Eye in a state of rest, adapted for—	5. Effect of glasses for distant objects.
I. Normal	*On* the retina.	At an infinite distance.	Parallel rays.	Convexes and concaves deteriorate vision.
II. Myopic	In *front* of the retina.	At a definite distance and positive.	Divergent rays	Concaves improve vision.
III. Hypermetropic (b)	*Behind* the retina.	At a definite distance and negative.	Convergent rays.	Convexes improve vision.

The three last lines of this table, read horizontally, give the leading characteristics of each class of eye; read vertically, the leading contrasts.

I shall now discuss these three different eyes, as they present themselves to us in a *state of rest*, leaving for the present entirely out of the question the variable element *accommodation*. I shall, in other words, entirely separate the two factors—the refraction of the eye, and its power of adjustment. To adopt a homely simile, if we had three different telescopes submitted to our judgment, our first business would be to test their powers of definition in regard to distant objects, as the heavenly bodies, and we might then proceed to test their individual powers of adjustment for the distinct vision of nearer objects.

The first step, then, in our investigating the refractive properties of a given eye is to eliminate the element accommodation. This may be effected in two ways. The patient may be able to suspend his accommodation by an effort of the will, or, if not, we may temporarily paralyse the ciliary muscle by a solution of atropine. For this purpose it must be of a strength of not less than four grains to the ounce; and must have had some hours given to it to act before we can feel certain that the paralysis is complete.

I. *Normal Eyes.*—We have so completely studied the refractive power of these in our former lecture that we have nothing further to add at present on this score.

II. *Myopic (Short-sighted) Eyes.*—Before we can satisfactorily discuss this anomaly of refraction, it will be necessary to here introduce the subject of concave lenses. A concave lens has properties precisely the reverse of convex

(a) I purposely omit here all mention of astigmatism. For an account of this *vide* the *Medical Mirror* for January, 1864.

(b) The name *Hypermetropia* (adjective=hypermetropic) was introduced by Professor Donders: it is synonymous with hyperpresbyopia and hyperopia. I have retained it, not for its perspicuity, but rather the reverse, for its subtleness of expression, attaching no other meaning to it than what immediately flows from its symptoms.

lenses. We shall limit our observations to the case of the equi-concave glass lens, of which a sectional figure is subjoined (Fig. 15).

The two sides of such a section, *A B* and *A′ B′*, are the concave sides of two circles—the circles of curvature. *C*, *C′*; *C R*, *C′ R′* are the centres and radii of curvature respectively. Parallel rays, *P*, *P′*, *P″*, *P‴*, etc., striking one surface of the lens, have a *divergence* imparted to them on their exit, *as if* they proceeded from an imaginary focus, *F*, which is called the principal focus of the lens. *F R* is the principal focal length, or briefly the focal length. It is in the case of an equi-concave glass lens, as is evident from the figure, equal to the radius of curvature, *C R*. It will be remembered that this same relation held good of the equi-*convex*-glass lens. In this last, however, the focal length is measured *forwards* from the surface of the lens, in the same direction as the rays travel (converge *to* their focus); whilst in the case of the concave lens the focal length is measured *backwards*, in the contrary direction (from *P* to *C*), to the course the rays diverge *from* their focus. If, then, we agree to call the focal length of the convex lens positive, we must call that of the concave one negative, and such is the practice actually adopted. We thus speak of a convex lens having, say, 5 inches positive focus, and a concave lens having 5 inches negative focus. And furthermore, from the entirely opposite properties the two classes of lenses possess in every point of view, it is the usage to speak of convex lenses as positive lenses; of concave lenses as negative lenses. Or, still more briefly, employing the two algebraical symbols + (plus) and — (minus), we should designate the convex lens in question simply as a "+ 5 lens," the concave one as a "— 5 lens;" or, as already explained, with reference to their "powers," we might call the convex one a "+ $\frac{1}{5}$ lens," the concave one a "— $\frac{1}{5}$ lens." The words positive and negative are used, then, simply to express *opposite* properties. If I agree to call running forwards positive, running backwards is negative; and I might in this sense speak of having run, say + 5, or — 5 miles. If we agree to call five inches measured forwards from O (Fig. 16) + 5, five inches measured backwards from O are — 5.

I have illustrated the meaning of these two terms perhaps a little more fully than is absolutely necessary—firstly, on account of the misconception that I know so frequently prevails on this point; and secondly, because we shall presently find a very convenient application of these terms when we come to speak of the far-point in the three classes of eyes (*vide* Table suprâ, column 3).

If the rays of light from a luminous point are already divergent, before they strike a concave lens (rays from near objects), they will be found, after their exit from the second surface of the lens, to have acquired a still greater degree of divergence, to hence appear *as if* they proceeded from a point nearer the lens than they really do from—(Fig. 17).

It is one of the laws of vision to refer the origin of any rays striking the eye (*E*) to the position a luminous point (*F′* in the figure) would occupy which corresponded to the degree of divergence the rays (*R* and *R′*) have when they strike the eye. This luminous point or focus (*F′*) has, then, no real existence; the rays of light have never met there; the focus is an "imaginary," "virtual," or "apparent" one, its position in space being fixed by the law of vision just mentioned. The dotted lines in both figures (15 and 17) indicate the apparent direction of the rays to the eye, *E*.

What holds good of a pencil of rays from one luminous point of an object, equally does of all. The consequence is that a concave lens forms an apparent image of any distant object precisely at its focal length; if the object is a near one, its image appears still nearer. Furthermore, the image is always erect and diminished (Fig. 18).

(To be continued.)

Fig. 15.

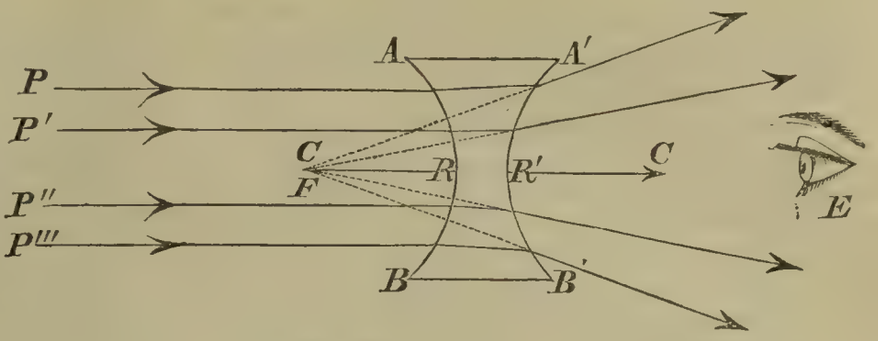

Fig. 15.—*F*=apparent focus, the dotted lines indicating the apparent path of the rays when they strike the eye, *E*.

Fig. 16.

Fig. 17.

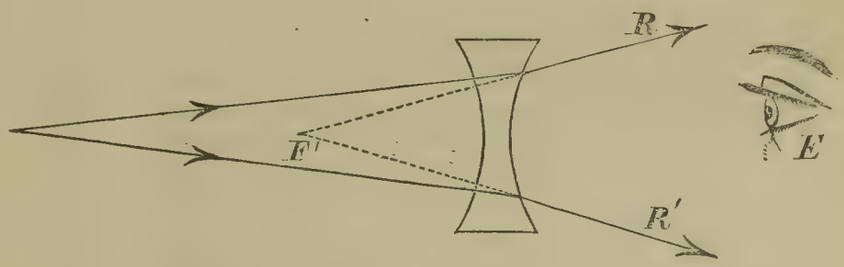

Fig. 17.—*L*=Luminous Point.
F′=Imaginary Focus of the Rays after their Exit from the Lens, the dotted lines indicating the apparent course of the rays.

Fig. 18.

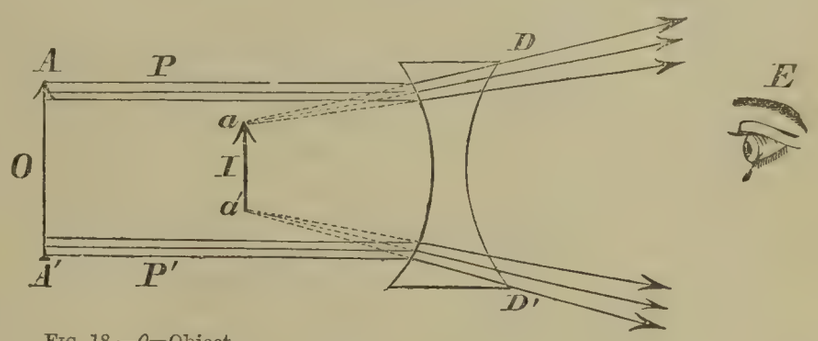

Fig. 18.—*O*=Object.
I=Image.
P, *P′*=Parallel rays from the top and bottom points (*A*, *A′*) of the object, which, after emergence from the lens are changed into rays, *D*, *D′*, having a divergence as if they proceeded from *a*, *a′* of the apparent image.

Raising the Fees of Practitioners in Boston.—A committee appointed by the Boston Medical Society has just made its report upon this subject. It seems that in 1788 the fee for an ordinary visit was four shillings, and was gradually raised to two dollars, which by a sliding scale was reduced to one dollar for persons of only moderate means. It is now proposed to fix it at three dollars, without any sliding scale, leaving the Practitioner to make any deduction he may think the circumstances of the patient warrant, at the time of settling the account. The fee for a visit in consultation is to be from five to ten dollars. A letter of advice is to cost from ten to twenty dollars; a certificate of health, five dollars; post mortem performed for friends, twenty dollars—for legal investigations, fifty dollars; and a vaccination, five dollars. For labours in the day time twenty, and in the night thirty dollars, with additional charge in tedious labour and obstetrical operations. When both child and placenta are delivered before arrival, only half fees or the whole, according to circumstances. Capital operations from 100 to 500 dollars, and secondary ones 25 to 100, all subsequent visits being charged. These new fees to come into force on the 1st July, 1864.—*Boston Journal*, June 23

ORIGINAL COMMUNICATIONS.

SEA SICKNESS: ITS NATURE AND TREATMENT.

By JOHN CHAPMAN, M.D., M.R.C.P.

THE *proximate* cause of this remarkable and often terrible malady has excited endless discussion, but has still remained involved in great obscurity. Several sagacious conjectures have, however, been hazarded concerning its nature, some of them, as I believe myself able to prove, coming very near the truth. The doctrine of the excito-motor or reflex functions of the spinal cord is a guide to the whole physiology of sickness, and following it, I was led to predict how to prevent, arrest, or control, not only sea sickness, but, also, how to remedy or palliate every kind of sickness, whatever may be its *primary* cause.

I hold that the proximate cause of sea sickness consists in an undue amount of blood in the nervous centres along the back, and especially in those segments of the spinal cord related to the stomach and the muscles concerned in vomiting. This condition of the nervous centres in question is induced, by the movement of the vessel, in, I believe, three ways:—1st, through the brain; 2nd, through the ligaments of the spinal cord; 3rd, through the abdominal and pelvic viscera.

If, by one or several causes, the amount of blood circulating in the spinal cord be increased considerably beyond the normal amount, all the nerves emanating from it partake of the increased activity of the cord itself, and convey from the centre to the periphyry of the nervous system an abnormally large number of exciting impulses. Those parts of the body which are subject to the will—the purely voluntary muscles—resist these impulses most easily; and only in extreme cases, therefore, are their ordinary functions deranged; but the involuntary or purely organic functions, being unsustained by cerebral influence under the direction of a dominating will, have their usually regular and tranquil life easily disturbed and thrown into confusion by the unwonted number of exciting impulses transmitted to them from the præternaturally excited spinal cord.

Cerebral Movements a Source of Sea Sickness.

In those cases in which the brain is the principal or first seat of disturbance it is probable that this organ is protected from concussion against the walls, and especially against the base, of the skull by a less than the normal amount of the cerebro-spinal fluid, or that the brain in such cases is so peculiarly susceptible to shocks as to become abnormally excited by concussions too slight to be felt or to produce inconvenience in really healthy persons. The cerebral circulation may also be especially liable to derangement—the arteries unduly contracting or dilating in response to influences which would exert no sensible effect in the other classes of sufferers from sea sickness. So great is the difference in the amount of blood circulating in the brain at different times, that it swells up and contracts again to an astonishing extent, in correspondence with its varying degrees of activity or of repose. Observations of the living brain in men and animals, in cases where portions of the skull have been removed, prove that the cerebral expansion during wakefulness, and still more during mental excitement, is remarkably great—vessels previously invisible suddenly swelling to appreciable diameters, and those already discernible becoming notably larger; and, conversely, that during tranquillity, and still more during dreamless sleep, the cerebral contraction is simultaneously great, so that the brain occupies a much less space than before. If the brain can thus enlarge and diminish within its bony case in proportion to the amount of blood circulating in it, it is evidently capable of movement by violent impulses from without to an extent sufficient to induce great cerebral irritation, and, at the same time, to contribute to the motion of the spinal cord, and thus to irritate it through the jerks on the ligamentum denticulatum in the manner about to be suggested. When a person is in an upright position in a pitching vessel the brain, being a soft substance, alters its form with every rise and fall of the ship. At the moment when the upward movement is arrested the brain continues to tend in the same direction, and as the downward movement begins presses towards the roof of the skull; and then again, when the downward movement is arrested, the brain continues, as before, to tend in the same direction, and as the upward movement re-commences presses towards the base of the skull. In this manner the brain tends to expand in its lateral diameter, and to contract or become slightly flattened in its vertical one, and, therefore, to pull, in some slight degree, the cord upwards and again to press it downwards, thus acting as a co-operative cause of the vertical movement of the cord within its fibrous sheath.

It is a notable fact that in many sufferers from sea sickness headache peculiarly intense is one of the most striking symptoms. In these cases of undue cerebral sensitiveness exciting impressions are transmitted from the brain to the medulla oblongata, and thence forward to the whole spinal cord; these impressions, acting as irritants, increase the flow of blood to the whole spinal axis, and, consequently, its functional activity; the nerves emanating from it, and conveying its impulses, directly or indirectly, to the stomach and other abdominal viscera, excite them to præternatural action; when that action exceeds certain limits the thoracic and abdominal muscles also become active, either simultaneously and directly, or secondarily and indirectly—through the medium of impressions propagated from the excited stomach to the spinal cord, and from it reflected to them: thus sea sickness, in its various grades of nausea, retching, vomiting, may originate in cerebral disturbance, the stomach being unduly excited, not, perhaps, through the intervention of the spinal cord and sympathetic ganglia only, as, I believe it is, in the sickness of pregnancy, but also through the medulla oblongata and its efferent pneumogastric nerves. I say *perhaps*, advisedly; for the results of my experiments lead me to doubt the commonly accepted doctrine that the motor nerves distributed to the stomach, and which are the media of those impulses producing vomiting, are branches of the par vagum.

Spinal Movement a Source of Sea Sickness.

As the spinal cord is suspended in a fibrous tube by means of a series of lateral ligaments, and is surrounded by water—the cerebro-spinal fluid—by which it is saved from concussion, it is probable that each time the body, when in a standing or sitting posture, is rapidly raised or depressed by the alternate rise and fall of the vessel there is a slight jerk on each of the ligaments holding the spinal cord in its place. If we suppose a person to be sitting in the middle of a compartment of a railway carriage, and to be tied in his place by four cords passing from him to the four corners of the compartment, and then that the carriage be suddenly moved, the tendency of the body to remain stationary will cause a jerk on two of the cords, the jerk being felt, of course, at the points where the cords are tied on the person. On the same principle and in the same manner the movements of the vessel cause jerks on the inner sheath of the spinal cord along the line of origin of the spinal ligaments, called collectively the *ligamentum denticulatum*. These jerks produce irritation and consequent afflux of blood, and as in cases when the outer cerebral membrane, the dura mater, is inflamed or irritated, the abnormal condition affects the brain also, so, *à fortiori*, if the inner sheath of the spinal cord—the pia mater, with which the ligamentum denticulatum is homogenous—becomes the seat of vascularity, the spinal cord itself will be likewise affected. It has already been suggested that the movement of the brain itself and its consequent slight changes of form are likely to cause some alternate tension and slackening of the spinal ligaments; but as the substance of the cord is soft, like that of the brain, it is liable throughout nearly its whole length to a certain amount of derangement by the alternate rise and fall of the vessel on the same principle and in the same manner as the brain itself, even though each end of it were immovably fixed; and thus it is difficult to avoid the conviction that the cord is always subject to slight jerks along the line of origin of the ligamentum denticulatum, partly in consequence of its connexion with the brain moving as described, and partly in consequence of the movements directly imparted to it by the pitching vessel. Violent pitching movements may thus increase the circulation of the whole cord in persons who maintain an upright position, and indirectly through it the circulation of the proximate sympathetic nervous centres; it is easily conceivable that in this manner those segments of the cord related to the stomach (directly or indirectly) and to the muscles concerned in vomiting will transmit their impulses to these organs in such an abnormal degree as to induce sickness in all its grades. Assuming that sea sickness is sometimes primarily induced in this way, it is probable that it is so in those persons in whom the spinal cord, as well as the dorsal ganglia of the sympathetic, is already in an abnormal or peculiarly sensi-

tive condition. In persons who believe themselves healthy there is a remarkable difference in the degrees of tenderness when pressure is made along the different parts of the spine; and perhaps further investigation will prove that persons in whom præternatural tenderness is detected are peculiarly liable to sea sickness.

Visceral Movements a Source of Sea Sickness.

The third process by which an abnormal amount of blood is induced in the nervous centres along the back consists in the excessive movement of the viscera within the abdominal and pelvic cavities; indeed, the weight of the heart is such as to justify the belief that this part of the contents of the thoracic cavity is also impelled at least upwards and downwards with præternatural force by the motion of the ship, and in this way helps to disturb the regular action of the diaphragm to which it is attached, and which, in consequence of the excessive movements of the abdominal viscera, is subject to more than the normal pressure which they make upon it. As the body is moved upwards and downwards and from side to side with the vessel, the solid and hollow viscera are more or less violently shaken and brought into concussion with each other. In proportion to the amount of contents of the hollow viscera will be the impetus of their movements, and the consequent force of the shocks against each other and the abdominal walls which they experience.(a) These movements and shocks, and the irritations caused by the continually changing positions of the contents of the hollow viscera produce an abundance of abnormal impressions upon the nerves distributed to the various organs; these impressions are conveyed through the medium of the complex visceral nerves and the sympathetic ganglia to the spinal cord and possibly to the medulla oblongata, which they influence in the manner already described, thus inducing an excessive reflex action of those organs, and hence the transmission of a præternatural amount of motor impulses to the stomach and bowels, and, indeed, to all the viscera, as well as to the thoracic and abdominal muscles. Sea sickness and the diarrhœa which not unfrequently accompanies it are in this manner easily accounted for—so easily, in fact, that the process last described will probably be held by many pathologists to be the chief, if not the sole, proximate cause of the malady. The fact that it is induced in this way accounts for the partial relief which sufferers sometimes obtain by the application of tight bandages round the abdomen, as they obviously lessen the visceral movements. Assuming that the several movements of the brain, the spinal cord, and the viscera contribute to cause sea sickness in the manner now explained, it is easy to understand why it is that persons are most liable to become sick when in an upright position, seeing that that position permits of a more extensive movement of the brain, of the spinal cord, and of the viscera within the abdominal cavity, than is possible when the patient is lying down.

Those of my readers who regard the pneumogastric as the sole source of motor impulses to the stomach will probably object to the theory of sea sickness last given, that there is no anatomical evidence of the relationship which I have alleged to exist between the spinal cord and stomach, together with the bowels; that, with the exception of the pneumogastric, the nerves distributed to those organs are derived from the ganglia of the sympathetic, and that no spinal nerves are found to ramify upon them, and that, therefore, the idea of afferent nerves conveying impression from the stomach and bowels to the spinal cord, and of efferent nerves conveying motor impulses from the cord to the stomach and intestines, is a pure assumption. It may be as well to remind such objectors that many facts of animal structure which the anatomist has failed to discover have been revealed to the physiologist; that numerous vivi-sectional experiments by various investigators go far to establish the relation which I have assumed to exist between the spinal cord and alimentary canal; and that my own therapeutical experiments, as I shall hereafter show, confirm their conclusions in a very remarkable and decisive manner. Moreover, it is well known that the communicating branches between the spinal cord and the ganglia of the sympathetic consist of fibres from the cord to those ganglia, as well as of fibres from the ganglia to the cord. Such being the case, we are enabled to understand how these spinal fibres, blending with the sympathetic fibres, may enter into the complex structure of those nervous centres presiding over the functions of the abdominal viscera, although not traceable and demonstrable by the anatomist. And as physiological evidence, derived from dividing in the living animal the communicating branches between the two nervous systems, and observing the results, as well as the evidence I am about to tender, proves that the stomach and bowels may be acted upon through the spinal cord without the intervention of the pneumogastric nerves, we are, indeed, forced to the conclusion that the lines of communication along which the nervous influence passes must be as follow:—Impressions made on the stomach, and having reference to its functions, are carried by the fibres converging from that organ to the solar plexus, are thence transmitted up the splanchnic nerves to the thoracic ganglia on each side of the spinal cord, and from thence are continued onwards, through the *rami communicantes*, to the cord itself; coming to the cord with præternatural rapidity and energy they irritate it unduly, increase the quantity of blood in it, and thus induce in it a condition of excessive excitability; its functional power becoming greatly intensified, it reflects, in the form of motor impulses, on the stomach and other co-ordinated organs the impressions made upon it. The impulses transmitted to the stomach itself pass along the same line as the impressions from it, only in the reverse direction—viz., from the cord to the thoracic ganglia, thence by the splanchnic nerves to the solar plexus, and through it to the stomach; but the muscles which co-operate in vomiting receive their mandates of course through the more direct line of the spinal nerves themselves. The bowels tell of the disturbances to which they are subject to the superior and inferior mesenteric plexuses, these transmit the complaint to the ganglia of the sympathetic, and they forward it, along the *rami communicantes*, to the spinal cord, which, if thus excited to a considerable degree, sends unusually energetic motor impulses in the reverse direction to the circular muscles along the complaining organs; hence these muscles contract with excessive vigour, and, co-operating with the præternaturally active mucous membrane and other secreting organs along the alimentary canal, induce diarrhœa.

The physiological light thrown upon the relation between the nervous centres along the back and the stomach and bowels by the application of cold and heat to the spinal region is indeed great, and for therapeutical purposes not less important. I can state from experience that a large proportion of cases of chronic constipation and at least certain forms of diarrhœa can be remedied by modifying the temperature of the back. The subject is, however, more complex than it seems at first sight, and cannot be discussed here *in extenso*; but I may just say that, for good physiological reasons, ice to the back is capable both of overcoming constipation and stopping diarrhœa, and that while heat, which applied to healthy persons tends to impede the functions of the bowels, and which in some cases would restrain diarrhœa, would in other cases—as, for instance, when it accompanies sea sickness—contribute to its continuance. Moreover, I have reason to believe it probable that the proximate cause of the diarrhœa so common everywhere in hot weather is the same as the proximate cause of the diarrhœa which sometimes accompanies sea sickness—viz., an undue amount of blood in the mesenteric plexuses and in certain nervous centres along the back. In the one case the ultimate cause of this præternatural sanguineous afflux is the motion of the ship; in the other it is, if I am right, the heat of the sun which raises the temperature of the back. I therefore conjecture that summer diarrhœa may be speedily cured by the application of ice along the lower dorsal and the lumbar region, and should be very glad if Physicians having the treatment of such cases would test the value of my suggestion. Moreover, I have strong reasons for believing that the proximate cause of cholera is identical in nature with that of summer diarrhœa, that it differs from it only in the degree of suddenness of its attack and in the intensity of its action, and that it may be both averted and cured by ice applied along the back. It seems to me likely that, having reference to its cause, cholera may be at once briefly and truly described as "a sun-stroke along the back." I shall before long give my reasons for this opinion.

What may be the relative amounts of the several shares contributed by the three chief processes now described in causing that præternatural afflux of blood in the spinal cord on which sea-sickness depends is a question extremely diffi-

(a) A gentleman has recently informed me that his wife when at sea during pregnancy suffers much more from sea sickness than she does when at sea at other times. This increase may be due in part to the cause suggested in the text, but it is doubtless also due to the physiological excitation transmitted from the enlarging womb to the nervous centres which preside over it.

cult, and probably impossible, to determine. There can be no doubt, however, I apprehend, but that in one person the brain is primarily responsible; in another, the spinal cord; in a third, the abdominal viscera; although each is always concurrent in some degree, and all ultimately produce the same result; and that, until the irritation of one or all the kinds described be continued sufficiently long to produce a præternaturally large amount of blood in those segments of the spinal cord related to the stomach, vomiting is impossible. An interesting confirmation of the doctrine here expounded consists in the fact that sickness may be induced by heat applied to the back. It is well known that many persons cannot stand with the back to the fire without feeling nausea. In some cases of paralysis in which I have ordered friction to the spine, the friction, by evolving heat, I presume, caused sickness, and therefore could not be persisted in; and in a case of pulmonary hæmorrhage, in which, as I am in the habit of doing in other cases, I prescribed a double column of heat along the dorsal region, the remedy cannot be adequately used with impunity because, though it stops the hæmorrhage and accompanying pulmonary congestion, it invariably induces sickness. If a short double column of heat be applied to the cervical region only of this patient he becomes sick.(b)

Besides the phenomena of sea-sickness already adverted to, there are others which, though arresting the observer's attention less forcibly, and though less distressing, are not less interesting to the physiologist and Physician—viz., the deadly pallor, the cold sweat, physical weakness, headache, and mental prostration and indifference, which in degrees varying from a condition of mere *malaise* to one of such vital depression as to imperil life itself, form a part of the malady. The pallor, coldness of the surface, and loss of strength, both physical and mental, are all expressions of one and the same fact, and denote that an inadequate supply of blood is passing through the capillaries all over the body. This diminution and partial arrest of the peripheral circulation involve impairment of the nourishing and oxygenating processes throughout the body; and, as animal heat is a result of the chemical changes constituting a chief part of those processes, the temperature necessarily falls when their activity is lessened. The skin as the blood retires from it becomes pallid, the muscles supplied less copiously than before become feeble, and the brain having its sanguineous supplies so far cut off that the forehead generally becomes strikingly cold, is rendered incapable of either vigorous thought or feeling, and, in extreme cases, patients evince utter indifference, both intellectual and emotional, respecting persons and events around them.

Now, if, as alleged, these phenomena are due to a diminution of the blood currents in the small arteries, and in the capillaries in nearly all parts of the body, the problem for solution is—"How is this diminution produced?" It is through the ageney of the sympathetic nervous system, the orderly action of which is deranged by the ship's movements in the manner now to be described. As the cerebro-spinal nervous centres are the organs of those excito-motor or reflex functions chiefly concerned in carrying on the relations of the organism with the outer world, so the sympathetic or ganglionic nervous centres are the organs of those excito-motor or reflex functions chiefly concerned in carrying on all those operations which minister to the life, growth, and renovation of the organism itself, and by which its several parts are supplied with material for the elaboration of their respective contributions to the totality constituting the living being. The most important office of the sympathetic nervous system is that of presiding over and controlling the circulation of the blood: afferent and efferent "organic" nerves ramifying over the arteries, as ivy round a tree, and connected centrally with the sympathetic ganglia, are the media by which the circulatory is subordinated to the nervous system. As the sensory or afferent nerve-fibres of the cerebro-spinal system, which pass from the viscera, convey their impressions to the spinal cord, and in cases of sea-sickness produce the physiological conditions already described, so the afferent nerves of the sympathetic system, receiving impressions in unusual numbers and of unusual intensity from the brain and abdominal viscera, convey them to the ganglionic nervous centres, which reflect them through the ganglionic efferent nerves in the form of impulses or orders transmitted to the arteries, and producing their contraction. Hence the nerves fulfilling these offices are called *vaso-motor* nerves. In order to understand the part they play in sea sickness, it is necessary to bear in mind that when an impression has been made upon the afferent nerves of an artery that impression will not necessarily cause a motor impulse to be reflected to that artery, at least, not to that alone, but may cause the contraction of arteries far away from it: for example, impressions, as of cold, made on one limb will be reflected on the opposite limb, thus inducing its arteries to contract also; impressions made on the uterine nerves will cause contractions of the arteries of the lower extremities, and *vice versâ;* again, abnormal impressions transmitted from the uterine nerves may be reflected on to the bowels and cause constipation. It may therefore be stated as a general truth capable of a wide application that the limbs of the nervous arcs constituted by the centripetal and centrifugal nerves, and intervening central ganglia of the sympathetic nervous system, are often very widely spread, and thus, indeed, justify the name "sympathetic," by which that system is mostly designated. Moreover, as all the ganglia of the sympathetic system are intimately connected by inter-communicating fibres, a particular condition of hyperæmia or anæmia induced in one is soon propagated to those in immediate relation with it, and indirectly through them, though in lessened intensity, to those at successively increasing distances from it. A knowledge of these facts will greatly facilitate the understanding of the causal relation of phenomena of sea sickness now in question.

A ship's motions cause in the persons on board movements of the brain and of the contents of the abdomen and pelvis, as already explained. The abnormal impressions made on the various organs by these movements, and by the various shocks to which they are severally and in varying degrees subject, are received not only by the sensory nerves, as already explained, but also upon the afferent vasic nerves of each organ subject to disturbance. These vasic nerves continue the impressions to the ganglia, and produce there such præternatural activity or irritation as to cause an unusual afflux of blood in them; their functional energy is, therefore, proportionally increased, and, consequently, they transmit their motor influence in unusually full and rapid streams to all the blood-vessels to which they are related. The muscular coat of these vessels thus stimulated contracts; a large proportion of the blood previously circulating in the parts to which the vessels in question are distributed is shut off, and hence the diminution of the capillary circulation, and of all those processes involving nutrition, oxygenation, textural transformation, and the evolution of heat, on which the continuance of healthy vigorous life depend.

The intimate relation between the bowels and skin is very remarkable, and has long been the subject of special observation. It is painfully illustrated in cases of those extensive burns which cause death. The amount of injury sustained by the skin itself often extends over so limited an area as to present no adequate reason why death should ensue, and, indeed, is proved not to be its proximate cause—the post-mortem examination revealing internal inflammation or disease either of the brain or of the thoracic or abdominal viscera, which really destroyed the patient. The alimentary canal is peculiarly liable to be thus affected. In such cases the vehemently excited nerves distributed over the injured skin transmit their præternaturally intense impressions to the nervous centres, into which they converge, and these, thus unduly excited, reflect them not only to the skin, but in various other directions, and especially on the mucous membrane of the bowels. (c) It will be readily understood that, if such is the

(b) It is right to observe that this patient has been peculiarly liable to sickness since infancy. His experience is a remarkable confirmation of the truth of the therapeutical doctrines which I have announced, and a not less remarkable, but happily rare, illustration of the difficulty of applying those doctrines in certain cases. If, in order to stop his sickness, cold be applied to his spine, even in the lumbar region, and for a short time only, it induces unpleasant sensations in the chest, and would no doubt soon cause hæmorrhage; while conversely, as already said, if in order to stop pulmonary hæmorrhage heat be applied, he immediately becomes sick. Notwithstanding the sickness, however, he says he shall still use the hot-water bag when either attacked or threatened with spitting of blood. He volunteers an interesting observation concerning the sickness induced in him by the hot-water bag. He says that, whereas when sick spontaneously the sickness is sometimes accompanied with considerable muscular effort, and is always followed by a headache, the sickness caused by the hot-water bag is always without muscular effort, and is never followed by headache. Indeed, if he has a headache at the time of applying the heat, the heat takes it away

(c) I venture to predict that the lives of many persons imperilled by burns, in the manner described in the text, will hereafter be saved by the arrest of the excessive reflex activity of the nervous centres along the back by means of ice. I have not yet had an opportunity of testing this method in respect to burns, and therefore commend it especially to those Physicians who are in the neighbourhood of ironworks and other factories where burns are frequent. If experience shall confirm the accuracy of this prediction, the first Physician who shall verify it will contribute to introduce a method of treatment which will greatly alleviate human suffering.

intimate relation between the bowels and the skin, impressions made on any part of the alimentary canal may be reflected from it through the vaso-motor nerves ramifying over the arteries of the skin, thus causing their contraction, diminishing the amount of blood in them and the transformative processes depending on its presence, and consequently the heat of the whole surface of the body. The remarkable pallor so frequent in sea sickness is, of course, only a part of this result. The muscles, having their capillary circulation diminished in the same manner, have their functional power, of course, correspondingly enfeebled. The contraction of the cerebral arteries may be partly induced by motor impulses, which had their origin in impressions conveyed from the viscera to the thoracic ganglia, and producing irritations there which are propagated upwards through the cervical ganglia in the manner already explained; but it is probable that those contractions are chiefly due to irritating impressions made on the afferent nerves of the cerebral arteries and originating in cerebral disturbances caused by the ship's movements. Whatever may be the primary source of the motor impulses causing the contractions of these arteries the pathological result is the same, viz., diminution of the cerebral circulation, impaired cerebral nutrition and function, and that remarkable form of headache resulting from a deficient supply of blood and distinguished by an especial coldness of the forehead. This condition of the cerebral circulation fully accounts for that extreme mental prostration and indifference to all surrounding objects which is such a remarkable feature in cases of extreme sea sickness. In some cases, however, the cerebral circulation is not thus affected, and usually during the act of vomiting the amount of blood in the head and face is temporarily increased by muscular pressure on the jugular veins and by the disturbance of respiration.

There is one phenomenon of sea sickness, as indeed of nearly all sickness, viz., profuse perspiration, which I am not able satisfactorily to account for. The physiology of sweating still remains in obscurity. We know little of the *modus operandi* of its production, and less how effectually to restrain it. It seems at first sight reasonable to suppose that when the skin is most abundantly suffused with blood, perspiration would be most profuse; and, indeed, the influence of external heat, as that of the sun, and notably of a Turkish bath, seems to confirm this supposition; but when the skin is suffused with blood to a maximum degree in cases of fever, especially of scarlet fever, perspiration is wholly absent; and when, as in sea-sickness, there is a minimum amount of blood in the skin and an absence of the normal degree of heat, perspiration is profuse. These apparently contradictory phenomena are, of course, in real harmony with each other, and will no doubt receive a satisfactory explanation; meanwhile I offer a suggestion which may, perhaps, give some clue to the mystery. I said that the chief function of the sympathetic nervous system consists in the control of the blood-vessels. There is little doubt, however, that the functions of this system are complex, as its structure is. It has been stated that the sympathetic ganglia receive fibres from the cerebro-spinal system, as well as give fibres to it. This instance of structural complexity may be accepted as a suggestion that analogous ones, as yet unknown to us, exist, and in like manner that other functions than those already clearly demonstrated are performed by the sympathetic nervous system. It may be, therefore, that the sweat glands are under the control of a special set of nerves as distinct in their functions as those presiding over the circulatory system. Their action, however, may be very different. The stimulus of a vaso-motor nerve, as we know, causes the vessel on which it ramifies to contract; but the stimulus transmitted along the nerves presumed to regulate the action of the sweat glands may cause them to pour out their secretion in increased abundance. If so, it is intelligible how it comes to pass that when there is a maximum amount of blood in the sympathetic nervous centres, induced in cases of sea sickness, as already explained, perspiration is profuse, although there is a minimum amount of blood in the skin. I am tempted to make this suggestion, because when in treating cases of an inflammatory character, the pulse being high, and the skin hot and dry, I have applied heat along the back, not only has the pulse been reduced, the inflammatory symptoms subdued, and the skin become cool, as I predicted and expected, but unexpectedly the patients have also speedily broken out into perspiration. In these cases it is certain that the nervous centres along the back had an unusual amount of blood drawn into them by the heat which had been applied, and that, therefore, they were, physiologically speaking, in the same state as are the nervous centres of persons suffering from sea sickness, and in both classes perspiration obtains. I have already adverted to the great sympathy or intimate relation between the skin and the mucous membrane of the alimentary canal, indeed there is great analogy between their functions; and bearing on this question of the physiology of sweating, I have observed a fact in respect to the bronchial mucous membrane similar to that which I have just recorded in reference to the skin, and of an equally unexpected character. In treating pulmonary catarrh and bronchitis I apply heat along the dorsal region in order, by inducing a præternatural afflux of blood in the thoracic ganglia, to cause the arteries supplying the bronchial mucous membrane to contract. Now, if at the stage of congestion of this membrane, when it is dry, its wonted secretion being absent, heat be applied to the dorsal region, as described, not only will the congestion be lessened, as I expected, but, contrary to what I at first expected, a slight secretion rapidly ensues, to the great relief of the patient. It seems to me that this phenomenon can only be accounted for on some such principle as that suggested to account for the perspiration also induced as described by the application of heat to the back. These suggestions receive considerable countenance from the fact announced by Prof. Claude Bernard—that the salivary glands are not under the control of the sympathetic, but of the lingual nerve, and that their secretion increases in proportion to the amount of positive stimulus received by them from that nerve. It seems to me probable that what I have just said will explain how the sweating, sickness, and diarrhœa of phthisis are induced, and will suggest how it may be lessened or prevented. The sympathetic ganglia are, I believe, brought into a state of hyperæmia by the irritation of the vasic nerves distributed to blood-vessels in the vicinity of tubercular deposits; and this hyperæmia becomes the proximate cause of the phenomena in question. Of course in such cases the remedial power of ice can be justifiably used only with great judgment and discretion, and with especial care. I may add that the therapeutical results I am about to describe not only confirm the general doctrine now expounded—of the proximate cause of the various phenomena of sea sickness—but give a peculiar sanction to the view here expressed concerning the physiology of perspiration; for, as I shall show, by lessening the amount of blood in the nervous centres along the back, the perspiration incidental to sea sickness is completely arrested.

(To be continued.)

CASE OF OVARIAN DISEASE IN WHICH OVARIOTOMY WAS NOT PERFORMED.

By B. J. BOULTON, M.D., L.R.C.S. Ed.,
Surgeon to the Horncastle Dispensary.

Forty years ago, when a student in Edinburgh, dissecting and learning anatomy under that admirable teacher and excellent Surgeon, John Lizars, I was present at his five famous operations of ovariotomy, which, with his characteristic truthfulness, he published, with plates. In those operations the room was heated to 98°. Hot water and flannels were provided to envelope the protruding intestines, for the abdomen was laid open from ensiform cartilage to pubes, or as Lizars, in nautical phrase (he had been Assistant-Surgeon in the navy), expressed it, "from stem to stern." I was one, amongst other pupils, who took my turn in night and day attendance upon the patients, of each of whom I have a vivid recollection,—of the woman deeply marked with small-pox, in whom the tumour had adhesions so extensive and vascular that no attempt was made to remove it, but who recovered; and also of the fat, pale, flabby young woman, with large omental lobules of fat, who died; and never have I forgotten the dismay depicted in the countenances of those who had diagnosed the case when the operator, with a coolness which was never disturbed during an operation, looked up, and quietly said, "There is no tumour, gentlemen." This woman died soon after from shock and exhaustion. It was the rule then, as with Professor Simpson now, to support the patients after operation with large repeated doses of opium. Unfortunately in this case it was not known until afterwards that the woman was an opium eater.

There can be no doubt that the results of those cases, in the hands of one of the most bold, skilful, and enterprising operators of the day, and published so faithfully, settled the

question of ovariotomy in the minds of British Surgeons of that time, and induced Liston, who had unbounded confidence in Lizars as a Surgeon and anatomist, to hurl that epithet, so rich in his own expletives (an epithet quoted so *aplomb* by Dr. R. Lee at the Medical and Chirurgical Society), at the heads of those who had the hardihood and the courage to revive the operation.

But with chloroform and all the appliances of modern Surgery, with a method of diagnosis rendered all but perfect, and with the modifications introduced into the operation itself, the question of ovariotomy assumes a very different aspect. In recent discussions upon ovariotomy at our Medical societies and in the journals, it appears to me that the condition of patients upon whom the operation is not performed has been almost lost sight of. Those who object to ovariotomy speak as if the disease, which is scarcely ever curable except by removal, is not so dangerous to life or so full of suffering as to justify a hazardous operation. Is this not a most incorrect assumption? In reply, I say that in the course of a long practice I have witnessed the miserable end of about twenty ovarian patients, and venture to bring the following case before the Profession, believing it to be by no means an uncommon example of the course of ovarian disease when treated by palliative measures alone. Who that has watched such a case has not noted the steadily progressive decay of his patient: physical suffering and exhaustion dragging her slowly, but certainly, down into death's dark valley, without a ray of that hope which in some other diseases cheers life's last months with promises, delusive perhaps, but none the less welcome?

Miss W. had been a delicate child, with highly gifted mental powers. When young she had been confined to her bed for twelve months for some spinal weakness. These symptoms gradually disappeared, and for about seventeen years she enjoyed health, which if not robust was at least tolerably satisfactory. During this period she menstruated regularly, but painfully. Several years ago she received a severe shock from the breaking off of a marriage engagement which had existed for several years. At first the symptoms pointed to general derangement of health rather than to any particular disease. Soon the catamenia became unequal and somewhat scanty, and very shortly afterwards a hard lump the size of an orange was discovered in the iliac region. This lump, which was tender on pressure, gradually increased in size, and began to press injuriously on surrounding organs. The bladder became irritable, bowels obstinately constipated, while pain and sleeplessness were so distressing that opiates were freely given, any good derived from them being more than counterbalanced by the dyspeptic and nervous symptoms induced. Œdema made its appearance, and the patient, unable to walk, was confined to her room.

This was the state of things when the case fell into my hands in January, 1862. In July I tapped one of the cysts, and drew off six pints of thick, dark coloured fluid, giving very partial and transient relief. The operation was repeated in November and December of that year, a more thorough emptying being obtained by thrusting a long curved trocar through the septum into a second large cyst. From the first I feared the case was not one suited for an attempt at radical cure, but to make sure on this point, Mr. Spencer Wells came down in consultation.

The girth now at the umbilical level was forty-five inches; distance from ensiform cartilage to pubic symphisis, eighteen inches; from either anterior inferior spine of ilium to umbilicus, thirteen and a-half inches. The general outline of the tumour showed that it was made up of three principal cysts. The liver was pressed backwards and to the right, and a coil of small intestines had been pushed up in front of it. Fluctuation was distinct in each of the large cysts. No crepitus, but considerable pain was felt on pressure over the right side, and also under the left false rib. The uterus was high up, out of reach. Vagina elongated into a funnel-shaped cylinder, and in the recto-vaginal fossa, projecting into both rectal and vaginal spaces, was a large tense tumour, evidently containing fluid, but perfectly immovable. The abdominal integuments were thin; not œdematous, but traversed by large superficial dilated veins.

The abdominal skin was quite immovable from the surface of the tumour. Mr. Wells was of opinion that the case was one in which, owing to the extent of adhesions within the pelvis and to the abdominal walls, ovariotomy could not be performed with any reasonable probability of the patient surviving the operation. He advised the next tapping to be per rectum. I made the puncture on May 19, and drew off ten pints of viscid, dark-brown fluid. The three cysts evidently now communicated with each other. The tumour, however, remained as high in the abdomen after the operation as before, and the position of the pelvic portion remained unaltered. The operation was repeated through the abdominal wall on June 16.

I may add that Mr. Wells saw the patient at a subsequent period. He still held, against the anxious importunities of relatives, to his former opinion, that any attempt at radical cure was out of the question, and the condition of the parts displayed at the post-mortem proved the correctness and wisdom of that decision.

It is needless to follow the case minutely from week to week. It is sufficient to say that tapping was had recourse to whenever the distension of the sac, causing terrible distress, rendered it necessary. This, during great part of 1863, was once a fortnight, and the fluid accumulated at the rate of a pint per day. As this went on the general health became more and more impaired. There was constant vesical irritation. Œdema extended from the left leg to its fellow; then to the abdomen and back. Anything approaching to rest was only obtained by chlorodyne. Bed became intolerable. For weeks this poor sufferer passed night and day on the sofa. Emaciation proceeded to the last degree; the respiration was much disturbed with frequent fits of dyspnœa and frantic struggles against suffocation. There was horrible pain sometimes referred to the stomach, heart, or limbs during the last few weeks. She complained constantly of blindness; it seemed to be more of perversion than loss of vision. Persons or large objects near her were always supposed to be on the opposite side, whilst smaller objects (a crumb or a pin) she would pick carefully from the bedclothes. A mind rich in natural gifts and stored with acquired knowledge gave way; a memory of wondrous power became confused; bodily distress, pain, extorted from a weakened brain only the expression of wailing agony and a cry for release, which was answered (quickly at last) on June 16, 1864, the age being 46.

The post-mortem examination at once showed the tumour to be a multilocular cyst of the left ovary, extending upwards to the ensiform cartilage. Its principal cavity, which showed traces of earlier division into several compartments, contained fourteen pints of the usual thick brown fluid. Over the surface of the tumour were, here and there, attached thin walled lobular cysts, the size of a kidney, and filled with clear limpid fluid. The proper covering of the large cyst was for the most part thin from distension; but the whole of its anterior surface was firmly adherent to the peritoneum. In some places, especially in the right iliac region, these adhesions were an inch thick, and so firm that it was with difficulty they could be separated even with the scalpel. The pelvic adhesions were also so strong that force, almost amounting to violence, was required to dislodge the tumour from the cavity. The uterus was almost entirely absorbed; the right ovary appeared healthy; the bladder and rectum congested; liver and other organs tolerably normal.

For the curious in such matters, here are the dates of tapping:—

1862.—July 16, November 6, December 8.

1863.—January 30, March 30, May 6, 19, June 16, July 14, August 3, 17, 30, September 14, 30, October 14, 30, November 13, 27, December 14, 30.

1864.—January 11, February 11, March 30, April 25, May 23.

Twenty-one times on the right of the mesian line; three times on the left; once by the rectum; the quantity of fluid varying from ten to sixteen pints.

This sad picture is not overdrawn. Women have always been ready to undergo the risk of ovariotomy—a proof of their conviction of the gravity of the disease. They know now pretty generally that there is a rescue for them, and they are clamorous to be relieved. That alone will not sway or mislead the judgment of a conscientious Surgeon. Yet the question does press, What is to be done with ovarian disease? Is every case to be left to its certain fate?

Let any man of long experience in female diseases recal his ten, fifteen, or twenty cases of ovarian dropsy, each with its ten, twenty, or thirty tappings. Can he be satisfied with this wretched temporising process? with death most surely in the distance. In one case I tapped thirty-two times. It is my firm belief that the cyst was unilocular, without adhesions or complications, and that at the present day it would have been considered easy of removal. That patient died of marasmus and

exhaustion. I cannot at this moment recollect a single ovarian patient dying of any other ailment. What are the risks of ovariotomy? Incorrect or uncertain diagnosis! Peritoneal inflammation! Is the diagnosis of a tumour in the belly so much more difficult than of a large tumour of the neck, with its deep attachments and belongings? What Surgeon of any eminence would be deterred from the most tremendous operation for the removal of a tumour of the jaw, neck, or axilla, in the vicinity of large nerves and vessels, from fear of after consequences? Even large cancerous masses are often removed with the hope of prolonging life, although the disease is certain of return. But the ovarian operation of my early days is shorn of its horrors. Last May twelvemonth I saw an ovarian tumour skilfully removed by Mr. Spencer Wells at the Samaritan, from a girl of 19, who perfectly recovered; and Mr. Wells showed me at the same time a still younger girl, perfectly well, from whom he had removed one ovary. A woman of 60, in whose case there had been extensive adhesions to deal with, joyously recovering; and a poor emaciated creature with diseased lungs, nearly heart-broken, when told she must go out with what relief tapping could afford her. Surely no reasonable man will be content henceforward to leave every case of ovarian disease to its fate. The disease itself will attract more attention; will come earlier under Medical inspection; we shall have more correctness of diagnosis; greater care and discrimination in the selection of cases; we have chloroform to prevent shock and pain; a more limited incision; no exposure of intestines or other organs; little or no risk of fluid escaping into the abdomen; and the wound healing like a cut finger, hundreds of lives ought to be preserved.

If the resection of a deformed or diseased joint with shortening of the limb be held to redound to the honour of modern Surgery, much higher distinction awaits those zealous attempts, now being so successfully made, to render safe the removal of a horrid incubus peculiar to the best part of creation—an incubus occurring at any age from 16 to 60, not in itself malignant, but which by its four or fourteen years of protracted suffering saps the foundations of the vital powers, unfits a woman for all the active and social duties of life, deprives her of every solace and enjoyment, and which in the end most certainly kills.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

ABSTRACT OF A CLINICAL LECTURE ON A CASE OF LOSS OF SPEECH AND PARALYSIS IN AN HYSTERICAL WOMAN — CURE BY MORAL TREATMENT.

(Under the care of Dr. WILKS.)

Elizabeth P., aged 22, a dressmaker, was admitted into the clinical ward, under the care of Dr. Wilks, on May 30.

Eighteen months before, without any previous symptoms of hysteria or emotional excitement, she lost speech in the night. At the same time she became unable to sit up, and has been speechless, and has kept her bed ever since. She communicates her wishes by writing, and can make signs readily. She seems to be quite intelligent, understands what is said, and replies well by writing. She can use her arms, and passes most of her time in embroidery.

On June 9, under some little exercise and the fear of galvanism, she said "yes" and "no" in a whisper.

To give the result shortly, this patient, without any drugs, became quite well, and was discharged. She spoke perfectly, and moved her limbs well. It was impossible to ascertain whether she was menstruating when she lost speech, but before and since there was no disorder of that function.

We have condensed the above from notes by Mr. Makens.

Dr. Wilks gave a clinical lecture on this case, from which we have gathered the following:—He considered that the case was a most important one, and that students should thoroughly comprehend the method of cure in this form of hysteria. The patient was scarcely in that position of life which would have necessitated her removal to a Hospital, but Dr. Wilks strongly urged it on her friends as a means of cure. It will be seen that the girl had been bedridden for nearly two years; said to be suffering from a spinal affection, which had paralysed her, and prevented her speaking. Dr. Wilks said he wished to impress upon students the error of treating such patients as this as cases of disease. This method was too often followed, as it was one which generally met with the approval of every one who was interested in the case, although the real good of the patient was strangely overlooked. Too often cases of this kind were regarded as genuine instances of disease, and treated accordingly by the Doctor; instead of being looked upon as mental or moral ailments requiring moral treatment. In private practice the former method was perhaps the best, in one sense, for the Medical attendant and both patient and friends were pleased with the latter's assiduity. It was a method, however, which not only did no good, but did positive harm, as it perpetuated the patient's imaginary troubles by having them so constantly kept in her remembrance by the attention of the Doctor. Her condition being one in which, from a low nervous organisation, every unpleasant sensation was fixed, as it were, in her system, all caressing on the part of friends would of necessity tend to render such a morbid state continuous, and thus Medical attendance, in the usual acceptation of the term, was positively bad. The method of cure was to rouse the will, and thus rid the body of its thousand morbid feelings; and this should be done by the Medical attendant after he has first made a study of the temperament of his patient. Sometimes a harsh expression or a severe scolding would excite the patient's anger and rouse her dormant will, but the hazard of the method was that a dislike might be taken to the doctor both by the patient and her friends, and he would be dismissed to make room for a kinder, but perhaps a less conscientious, man. Sometimes a solemn lecture to a patient, in which she is informed of the degrading position in which she is placing herself—one in which she is ruining herself both mentally and physically, and when there is no hope for the future—would be of the utmost benefit; and where also she might be told that if she promised to make an effort she might make a confidant of her Medical adviser, who would not expose her weakness, but assist her in her endeavours in every possible way.

In the present case Dr. Wilks happened to be visiting the house where the patient lay, and she was shown to him as incurably paralysed and speechless. He proposed to her friends to take her to the Hospital, explaining to them the great advantages of placing her under other influences than those to which she had been accustomed, and then addressed the patient (who immediately went into a fit, and pretended to be unconscious) that, should she consent, he would endeavour to cure her, unless, indeed, it was her object to be bedridden for life, and never fulfil the functions of other women—a most miserable prospect to have in view. She nodded assent, and soon after was brought to the ward, where Dr. Wilks' clinical clerk, Mr. Makens, was most thoroughly impressed with the object in view, and, insisting that the patient should always make some daily progress, his success has even been more speedy than Dr. Wilks anticipated.

Dr. Wilks said he could not speak too strongly in denunciation of the old fashion, the plan of treating hysteria by physic instead of by moral means, a plan which was known to be useless, and was yet followed as a matter of routine. He had, he said, often reflected with surprise upon a remark made by so intelligent a man as the late Dr. James Johnson, who, when called to visit a girl who had been in bed with various hysterical affections for five years, and who had been drenched with gallons of physic, inquired if every "stinking thing" in the Pharmacopœia had been given her, and when answered in the affirmative, declared he could do no more. It need, perhaps, be scarcely said that on the death of her kind Medical attendant, and on the resolution of her father that he would pay no more Doctors' bills, the young lady speedily got better. Dr. Wilks once more impressed on the students that it was the Doctor's duty to endeavour to cure his patients, but not necessarily to physic them. Just as in one of the other learned professions, if we cannot get justice, we can have plenty of law, so it occurs too frequently, if our patient be incurable, from her own voluntary stupidity, or the nature of her disease, we still prescribe unlimited physic. The above case might be headed as a cure by kindness, and is a good contrast to mere drug-giving. Such cases are deserving of great pity. This poor wretch has lost two years of by far the best part of human life, and she must always look back to that period with great distress and self reproach.

THE LONDON HOSPITAL.

OVARIAN DROPSY — PERITONITIS — FRICTION FREMITUS EASILY FELT AND HEARD.

(Case under the care of Mr. HUTCHINSON.)

In a case recently under care in this Hospital much interest was excited by the fact that an abdominal friction fremitus could be not only heard but very easily felt. Mr. Hutchinson stated that he had in several other cases of abdominal tumours, both ovarian and otherwise, observed the same symptom, though in no case had it lasted so long.

The patient, Mrs. G., a widow, aged 43, had been sent to Mr. Hutchinson with the view to the performance of ovariotomy. On the first examination no friction-rub was felt, but a few days later it became very distinct, and continued afterwards for nearly a month. The following are the particulars of the case:—

For about two years Mrs. G. has noticed her stomach enlarging. No menstruation for four months, and very irregular for two years. She has for years suffered much in winter from asthma. She gains her living as a bonnet maker. Latterly has lost flesh much. Until quite lately she has noticed that the tumour could be moved about, but of late it has become more fixed. She thinks it began on the left side. About a year ago she had a stitch pain in her side, and was very ill for two days. Again during the last few days she has had pain and tenderness over the tumour, especially on the left side and during cough. The abdomen is distended as at the full period of pregnancy, but not evenly. The tumour bulges much more in some directions than in others, and is to the eye clearly polycystic.

On applying the hand over the left side on the upper part of the tumour, a most distinct friction fremitus is felt (like that of two sheets of india-rubber). It became especially marked when she coughed, and she then put her hand to support the part, and complained of the pain caused. It could not be felt on the right side. Her statement that she had experienced pain only for two or three days accorded with the fact that a week before, when she was examined, no fremitus or creaking was observed.

Leeches were applied over the inflamed part, and with the result of diminishing the pain and tenderness. The fremitus, however, remained quite as distinct as before, and lasted more or less for nearly a month. The patient suffered remarkably little from febrile symptoms, and throughout took her food well.

TORBAY INFIRMARY.

SPONTANEOUS RUPTURE OF AN OVARIAN CYST PER VAGINAM—RECOVERY.

Phœbe H., aged 30, a widow and farm servant, attended the Torbay Infirmary, as an out-patient, under Dr. Hounsell, October 1, 1863. She has had four children; last six years ago. Miscarried four years ago, and ever since has had pain in right iliac region. She has noticed something like a lump there for at least three years. No menstruation for fourteen months. There is now very distinct enlargement in the right iliac region, extending a little above navel, but hardly transgressing the median line; there is deep-seated fluctuation; the tumour is moveable, not attached to abdomen, and is uniformly dull on percussion; fluid does not gravitate. Parieties move slightly when uterus is dragged down. There is no enlargement of uterus, but the os is patulous.

28th.—Tumour sensibly larger. Measures now twenty-eight inches at hypochondrium, thirty-two at umbilicus, and thirty-six at most prominent part of tumour, which is about two inches below navel on right side. There is evidently a large quantity of fluid in the cyst, which appears unilocular.

From this time we lost sight of her, but heard that she continued to increase in size to a great extent; so much that she appeared larger than at nine months of pregnancy. She continued to do her work, though with difficulty, and on February 1 was seen by Dr. Macreight, with a view to her admission into the Infirmary.

Some little delay ensued in making the arrangements for her coming, and whilst at her work, on February 7, "it burst all at once," and quarts of water flowed per vaginam. She suddenly became faint, and was placed in bed. Next day they brought her to the Infirmary. Her pulse was then 100, small. Pain and tenderness in abdomen, but not excessive. Tongue moist and pretty clean. Slight hæmorrhage, and rather free aqueous discharge per vaginam. A firm lump can be felt deep down in hypogastric region, rather to right, and connected with the uterus, but evidently not that organ. She was treated by opiates and salines, with carefully-regulated diet. Oozing of fluid, slightly sanguineous, continued for several days, and a week after admission there was slight fulness in the anterior wall of vagina, between uterus and bladder, and rather to the right. No aperture could then be detected. The pain and tenderness gradually diminished, and were nearly removed by end of the week. She passed water freely, but not in unusual quantity.

At the end of six weeks she was discharged in good health, able to walk seven or eight miles easily. No tumour could then be felt either externally or per vaginam. The uterus appeared normal, and as perfectly moveable as usual.

BRADFORD INFIRMARY.

MULTILOCULAR OVARIAN TUMOUR—OVARIOTOMY—RECOVERY.

(Under the care of Mr. TERRY.)

Mrs. W., aged 40 years. She had always enjoyed good health until she began to observe that her body was getting very large, which she supposed was from being pregnant. Has had four living children and one miscarry, and the catamenia always regular, except for the last three or four months, when they appeared at intervals at no regular time. It is about twelve months since she observed that she was enlarged in the body, although she supposes it may be two years since it first began. The body getting very large compelled her to seek relief. It was diagnosed to be tumour affecting the left ovary, multilocular, and a very favourable case for operation. The uterus was also examined, and found to be quite free and moveable. Having been previously prepared by a warm bath every other night, the skin rubbed with a flannel and a little soft soap, and saline purgatives administered, a dose of castor oil was given the night before the operation, and followed in about four hours by an enema of warm water. The patient was ordered to suck ice several hours before the operation, and before chloroform was administered three tablespoonfuls of brandy were given. The temperature of the room was 65°.

April 19, 1864, 4 p.m.—The patient was placed on the table in a semi-recumbent position, and a catheter introduced. Chloroform was then administered, and discontinued immediately after the external incision was made. I was kindly assisted by my colleagues, Dr. Mac Turk, Messrs. Meade, Parkinson, Miall, and several other Medical friends. I then made an incision between four and five inches long in the linea alba between the umbilicus and pubes, carefully dissecting through the tissues with a scalpel and director, as in hernia, until I came upon the peritoneum, which I then slit up, taking care to guard the knife with two fingers. There was an escape of some ascitic fluid. The tumour then presented itself. I then punctured the cyst with Spencer Wells' trochar, and emptied the largest cyst as far as was practicable, taking care to avoid any escape of the ovarian fluid into the abdomen or pelvis. I then made a little traction upon the mass, which was easily brought external, looking carefully as the tumour came forward for adhesions; there was only one, and it was very slight. I then applied the double ligature, consisting of fine silk whipcord, through the pedicle by passing an armed probe through it, and tied both ligatures, which I separated as near to the pedicle as I was justified. I then separated the tumour with a large scalpel. In the removal of the mass the intestines were not exposed, nor was the hand introduced into the abdominal cavity except to examine the right ovary, as the adhesion was separated as it presented itself at the wound, and there being no escape of the ovarian fluid did not require the use of the sponge. No ligatures were required. The wound was closed by nine sutures of silver wire, taking care to include the peritoneum, and allowing the pedicle to drop into the pelvis with its shortened ligature, as recommended by Dr. Tyler Smith. Dry lint was applied in the form of a compress, and a flannel bandage. After she had rallied from the chloroform, I administered two grains of powdered opium in the form of a suppository, and gave her ice to suck freely. The tumour was multilocular, one large cyst and many small ones in the substance of the tumour, which weighed, when emptied, about

five pounds. The contents of the cyst were about fourteen pints of thick, dark fluid, almost like mucilage. The pedicle was about two inches thick, and rather long. Some of the smaller cysts contained a dark greenish-looking fluid, others white, like milk.

Pulse after operation 98, and no vomiting. 9 p.m.—Pulse 110; vomited slightly twice; administered a suppository of opium two grains; catheter introduced; ordered to take milk and ice occasionally; free from pain.

20th, 9 a.m.—Passed a good night; no pain; pulse 104; tongue moist; introduced catheter, which was kept up at intervals of four hours the first week; administered suppository of two grains of opium. 1.30 p.m.—Slept about two hours; free from pain; vomited once; pulse 100; tongue moist, and expresses herself as being very comfortable. 5 p.m. —Pulse 96; vomited once; tongue dry; no sleep since last visit. As the vomiting continues, I have fully determined to discontinue the opium, as the symptoms are more like those caused by opium than the effects of the operation. 10 p.m.— Had some nice sleep; feels comfortable; not so thirsty; tongue moist; pulse 88, with no return of sickness.

21st, 9 a.m.—Passed a good night; no sickness; tongue moist; pulse 86; and free from pain. Ordered a cupful of boiled milk and bread. 9 p.m.—Had a little griping during the day; pulse 100, soft; administered a suppository of two grains of opium; no sickness.

22nd, 9 a.m.—Passed a good night; pulse 100; tongue a little furred in lines, and rather inclined to be dry; free from all pain; began to menstruate. Ordered a little beef-tea, and administered a suppository of a grain of opium. 9 p.m.— Had some sleep, and feels well; enjoyed some beef-tea; pulse 100; tongue rather dry.

23rd, 9 am.—Not quite so well; complains of great pain, especially over the region of the left ovary; passed a restless night; pulse 110; tongue dry. Removed bandage and dressing from the wound, which is looking well, and the greater portion united by the first intention. Washed the wound well with a weak solution of Condy's fluid, dressed with lint and soap plaster, and the application of a turpentine stupe over the part that is painful. Administered a suppository of two grains of opium, and ordered a little iced brandy-and-water.

25th.—Tongue clean and moist; pulse 92; feels well. Ordered mutton chop and a little beer. The wound looking well; all healed, except at the insertion of the sutures; removed the sutures.

28th.—Feels very well; pulse 88; wound dressed. Ordered an enema of warm water, as the bowels have not been opened since the operation.

29th.—Bowels acted freely from the enema; free from pain; pulse 80; tongue moist.

May 16.—Feels very well; able to walk; bowels acted daily since the enema. Ordered her to wear an abdominal bandage with pad, similar to an umbilical bandage.

Summary.—1st. The patient was prepared for the operation, as strongly recommended by different authorities. 2ndly. Very little chloroform was administered. 3rdly. No escape of the ovarian fluid into the pelvis or the peritoneum. 4thly. The intestines were not exposed at all. 5thly. The hand was not introduced to explore for adhesions, as they were looked for as the tumour presented itself externally. 6thly. The patient was not troubled with much food, but ice was given freely for ten days after the operation. 7thly. If the patient complained of the slightest pain, I immediately had recourse to turpentine stupes. 8thly. Emptying the bladder every four hours for the first ten days.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.

EXTENSIVE EPITHELIAL CANCER OF PENIS AND SCROTUM — SUCCESSFUL OPERATION — THE PATIENT WELL TWELVE MONTHS LATER.

(Under the care of Dr. PAGE.)

For the following two cases we are indebted to Mr. D. O'Brien, House-Surgeon:—

T. D., a pensioner, aged 63 years, was admitted February 2, 1863, with epithelial cancer of the penis and a considerable portion of the scrotum. The whole surface of the parts was ulcerated, and the urethra, from the orifice to the pubes, destroyed. The inguinal glands were healthy, and the disease was of two years' duration. Dr. Page operated as follows:— Commencing below, he removed all the anterior portion of the scrotum, laying bare the testes, and amputated the penis close to the pubis. The hæmorrhage was inconsiderable, and the patient got well without a single bad symptom. At the end of twelve months he appears in robust health, and the parts operated on in a perfectly sound condition. The result would go to prove that an operation for epithelial cancer of the penis offers a better chance of success than when the disease is situated in any other part of the body.

TWO CASES OF NECROSIS OF THE BONES OF GREAT TOE — SUCCESSFUL CONSERVATIVE TREATMENT.

(Under the care of Mr. PARSON.)

F. F., aged 52 years, admitted Nov. 10, 1864, under the care of Dr. Page, with necrosis of the bones of the great toe. There was a considerable thickening of the parts, with a fistulous opening; fleshy parts otherwise healthy. The patient complained of pain in the foot, and walked very badly. The operation was as follows:—An incision was made in the track of the diseased bones, and another across the metatarso-phalangeal articulation; the first phalanx was removed with a forceps, and the head of the metatarsal bone nipped off; the wound was brought together with thread sutures, and water dressing applied. Patient discharged cured in twenty-one days.

H. G., aged 56, admitted March 1, 1864, under the care of Mr. Parson; the bones of the great toe affected in very nearly a similar manner to the previous case. The same operation was performed with alike result, and the patient was discharged in twenty-six days.

Mr. O'Brien adds the following remarks:—

Mr. Fergusson, in his second lecture at the College of Surgeons, alludes to one or two cases where the thumb and finger were saved, and a case is reported in the *Lancet* of June 4, at the West London Hospital, of partial necrosis of the phalanges of the forefinger. Several pieces of dead bone were gouged away, and a useful finger was the result; but the two cases treated at the Portsmouth Hospital are even more interesting as examples of conservative Surgery, for, though the principal phalanx of the great toe was removed, and the head at the metatarsal bone, no lameness followed. The patients, both labouring men, are now following their usual avocations, doing heavy work, and the feet operated on seem as useful as when in a normal condition. It would be well to remember that in both cases the fleshy parts were sound and the tendons intact.

SALISBURY INFIRMARY.

DISEASE OF THE BONES OF THE THUMB FOLLOWING INJURY — REMOVAL OF THE FIRST PHALANX AND HEAD OF THE METACARPAL BONE—GOOD RESULT.

(Under the care of Mr. WILKES.)

The following case, sent by Mr. Wilkes, is very interesting as showing how care may prevent the loss of a small but most useful member. We remember seeing, a few years ago, in one of the Hospitals, a compositor who had disease of the right metacarpo-phalangeal joint. A compositor would be quite unable to set type without a good right thumb. He might manage without his index finger. Professor Miller relates a case in which a compositor was able to set type after the removal of four fingers, the little finger and thumb only being left. In this instance the joint was excised, but as the patient left the Hospital we do not know the result.

On May 16, 1864, Wm. K., a boy, aged 12, from Upton, was admitted into the Salisbury Infirmary for an injury to his right hand by the cogs of a chaff-cutting machine. There was a compound dislocation of the metacarpal bone of the thumb with its first phalanx, compound fractures of the first and second fingers, and in all much contusion and laceration of the soft parts.

An attempt was made to save them. By the 29th the bones of the thumb had become diseased; the first phalanx and the head of the metacarpal bone were carious and still luxated; the long flexor tendon perfect, and prominent in the wound. The forefinger had mortified; it was necessary to remove it at the articulation, taking off at the same time the head of its metacarpal bone. The middle finger was uniting and healing well.

It occurred to me that if I removed the carious phalanx of the thumb and cut off the head of the metacarpal bone that

the long flexor muscle would shorten, bring down the remaining phalanx, and make a new joint with the rest of the metacarpal bone.

At first it seemed a useless, pendulous flap; as it healed it got into shape. The new joint has formed with power of flexion, and a capital thumb is left for opposing the fingers.

Photographs taken on July 30, sent to us by Mr. Wilkes, give the appearance of the hand now it is well. It seems a useful member. Already he has considerable use with it, and time will make it much more serviceable.

ROYAL LONDON OPHTHALMIC HOSPITAL.

PARALYSIS OF ACCOMMODATION AFTER DIPHTHERIA—USE OF CALABAR BEAN.

(Case under the care of Mr. HUTCHINSON.)

A CLASS of cases have of late years become tolerably familiar to ophthalmic Surgeons, in which patients (usually children) come with the complaint that they have suddenly become unable to read. Vision for distant objects is still good, and very often the patient has himself found out that with a strong convex glass he can read as well as ever. It is clear, therefore, that there is no defect in the retina, and no disease of the structures of the eye other than simple inability to adjust or accommodate for near objects. The patient, although quite young, has suddenly passed into a condition of extreme old sight; he is in the highest degree presbyopic. In all these cases, as they present themselves at our Ophthalmic Hospitals or in private practice, we obtain, on inquiry, the history of a recent attack of diphtheria, and very often there is evidence of paralysis of other muscles as well as of that (the ciliary muscle) by which accommodation of the eye is effected. Next to the ciliary muscle those of the palate seem most prone to suffer, and we have a drooping soft palate, attended with nasal voice and great inconvenience in swallowing.

It is a curious fact that in most instances this paralysis does not come on during the diphtheria illness, but a short time after recovery. Very commonly it does not appear until some days after the patient has left his bed. Hence the wise precaution to insist upon the recumbent posture being observed for some time after all symptoms have passed away. In what precise manner the paralysis is connected with the diphtheria is not yet well understood. The degree seems often to be in ratio with the severity of the throat affection. Mr. Hutchinson informs us that he has met with two cases in which this symptom was present, and in which the patients had suffered from sore throat, but not from diphtheria. In one of these the patient had had scarlet fever with severe throat complication, and in the other the disease had been a post pharyngeal abscess. Both occurred in young persons.

The following are the particulars of a recent case under Mr. Hutchinson's care, which well illustrates the preceding remarks. It is of interest also as showing the efficacy of the Calabar bean in restoring the tension of accommodation, and enabling the patient, for a time at least, to see small objects perfectly well. This result proves yet more completely that in diphtheritic paralysis there is no loss of sensibility in the retina:—

Ebenezer F., aged 17, very pale, applied at the Moorfields Hospital on October 8. He complained that he could not read, yet he could see small type on a distant board. His near point was 22 inches, and he could at that distance just make out No. 2. With convex glass No. 12 he could read at ordinary distances easily. Thus it will be seen that he was simply presbyopic. His sharpness of vision was good, as proved by the fact that he could read No. 2 at so great a distance as two feet. As he had no hypermetropia, and as he assured me that his sight had been good until a few weeks ago, Mr. Hutchinson at once asked as to diphtheria, and he gave the following history:—

He had, he said, had diphtheria five weeks ago severely. He was two weeks in bed. He had had scarlet fever in childhood. Five of his brothers and sisters had diphtheria at the same time as himself, and one died. During his illness, whilst in bed, he read frequently, and after he got up he could still read easily until, a week after leaving his bed, he one day suddenly found his sight fail. Since then it had got progressively worse. He had difficulty in swallowing, and could not swallow solids without drinking at the same time, and in drinking he was liable to have the fluids pass through his nostril. His palate and pharynx bore irritation with a feather much more than natural. He could walk fairly, and eat well. There had been no loss of competency in his sphincters. He was not deaf. The pupils were of full size, and very sluggish. (a)

A piece of paper prepared with Calabar bean (Allen and Hanbury's) was put into his left eye. In ten minutes he said he could see better, and at the same time complained of a pinching and dragging in his eye. At the end of a quarter of an hour it was found on trial that he could read "brilliant" at ten inches, his focal distance with the other eye being, as at first, nearly two feet. The left pupil had now contracted to half the size of the other. Some prepared paper was now also put in the other eye.

This lad continued to attend for about six weeks, during which time he took quinine and steel. The effect of the Calabar bean in restoring the power of accommodation was, as is usual, very transitory. By degrees he regained the power, and at the time of discharge was quite well.

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Medical Times and Gazette.

SATURDAY, SEPTEMBER 3.

OUR PROFESSION AND A LIBERAL GOVERNMENT.

THE more we know of Sir Charles Wood's Indian Medical Warrant the less we like it. The problem the worthy Secretary for India propounded to himself was,—How to bait for young Medical men for the Indian service in a way which shall cost the Government fisher as little as possible? He has found the solution to be the very obvious one of subtracting something from the fish which were already in his possession. This is vulgarly called robbing Peter to pay Paul, and is likely to answer, if Peter is such a fool as to submit tamely, and Paul consents to be hoodwinked to the fact that, if he lives long enough, he will have to change places and play Peter to some future Paul.

We know with what big words of promise this new Medical Warrant was heralded into life; how official trumpets were sounded, and the Government showman invited a hesitating, half-hoping Medical public to "walk up," and behold the glad things which he would reveal to us within. "All cause of complaint and misunderstanding was to be removed," and the continual feast of a contented mind was to be the lot of all. The publication of the Warrant in India seems to have blown these high-sounding promises to the winds, and disgust threatens to reign triumphant in the place of that happy sway of contentment of which we have heard so many official prophecies. We lately gave our first and our second impressions of the new Medical Warrant. No one will deny that we failed to do *ample* justice to Sir C. Wood's concessions. Since that time the Indian journals have spoken with no uncertain voice, and we find that the strictures we passed upon the new measure are fully borne out by the opinions of all those who, by their position and intimate acquaintance with the Indian service, are most competent to arrive at correct conclusions. The

(a) See an excellent and most interesting account of this form of diphtheria-paralysis in Professor Donders' work recently published by the New Sydenham Society, page 599.

Warrant looks so fair at first view, and yet, when one makes an effort to gather up the amount of material benefit it confers, it eludes us like Professor Forbes' jelly fish in the hands of the young naturalist, and seems to wink at us with a wink of derision. The head-money and staff allowances have been abolished. If this had been general in its application, and not limited to the one unfortunate Medical branch of the service, we could only have bowed to the decision; but for Sir C. Wood thus to single out our Profession appears to be, to say the least of it, a most invidious and galling distinction. Why military officers should remain in possession of numerous staff salaries, and these be withheld from Medical officers, we cannot comprehend. While the head-money and staff allowances have been knocked off all other Medical officers, these have been retained for Assistant-Surgeons in Medical charge of British regiments or brigades of artillery. This is a most ingenious way of appearing very generous on paper, while you are consistently parsimonious in fact. Such charges, we are told, rarely, if ever, fall to the lot of Assistant-Surgeons. The boon which has been conferred seems to be that Medical officers will now be actually in receipt of less pay per month than before. As all appointments are to be paid alike, it stands to reason, too, that the least laborious will become the object of ambition. Take the question of batta again. What can be more unsatisfactory than the system of full and half batta? It was only the other day that the *Times'* correspondent gave a long account of the enormous expense of living at the larger stations in India, and descanted upon the great increase which had taken place in the price of everything there. We were glad to learn from the *Delhi Gazette* that Sir John Lawrence has marked his disapproval of the scheme, in some of its minor details, by giving addenda to the new Medical Warrant immediately on its promulgation.

There can be no doubt that the truth of what Dr. Beale expressed in his letter last week must, sooner or later, force itself upon the attention of the authorities. The Medical Profession is no longer over-stocked—no longer contains a considerable per-centage of badly-educated men, and the standard of Professional education, as well as the cost of obtaining it, have been raised. This must go on increasing, year by year, and to the more sagacious part of the public this must be—as it surely ought to be—a subject of sincere congratulation. The Government and Dr. Gibson may be content with an inferior class of men so long as these can be obtained, but their difficulties will be augmented even in procuring these.

In Mr. Charles Mayo's contribution to the last and very interesting volume of *Vacation Tourists, and Notes of Travel in* 1862-3, we find him saying—

"The social position of the Medical, as compared with the combatant officer (in the American Federal army), is decidedly good, much better than in our own army. The service is not, at all events, a cause of wonder to persons outside it, like that of our own army; wonder, namely, that any person with decent prospects of success in civil practice should ever think of entering it." By way of parenthesis we may here ask—what Medical Commission has been sent from our country to the scene of these terrible battles? Surely, among a people so fertile in resources and invention as the American nation, and amid experiments made upon so stupendous a scale as theirs, there must have been a great deal which would have repaid the expense of any Medical Commission? We find officers from the Royal Artillery and Royal Engineer Corps are detailed for foreign travel, to report upon the armies and guns of our Continental neighbours; but nothing of the kind exists for the Army Medical branch of the service.

The remedy for these things is in the hands of the Profession. It is all a question of supply. Before long the country will be undergoing the throes of a general election, and we hope that the position of our Profession in our public services under a *Liberal* administration will not be lost sight of by any one possessing a vote, and having the interests of his calling at heart. Be he Liberal or Conservative in politics, here is a matter by which he may gauge the intentions of every would-be M.P.

INFANTICIDE WHOLESALE.

It would be well if some of the energy and money expended on foreign missions, Hospitals at Jerusalem, and other fantastical acts of benevolence were expended on inquiries into the state of the heathen at home, and the tortures inflicted on poor children even in this nominally Christian land. We have often insisted on the necessity of a good supply of pure, sweet cow's milk, in order that children may be healthily reared in *towns*. There can be no doubt but that pedantic "sanitary" measures may be pushed to a mischievous extreme if all cow-houses whatever be banished from London. Take the case of young children affected with diarrhœa in hot weather. Pure milk fresh from the cow would be life; stale country milk, first skimmed, then scalded, and doctored to keep it *sweet*, then jolted into town on a railway truck, and then in carts to the dairy, might be death. On this point we claim to speak from the experience of Medical Practitioners, mothers of families, and sanitary officers. Let the milk and cream for grown persons and elder children be fetched from the country if you please; but for the young nurseling, who must be fed partially or entirely on cow's milk, you must keep a certain number of cows in town; and any one who will visit a first-class town cow-shed, such as those in the parish of St. George, Hanover-square, will soon be convinced that well-bred cows, fed on the best fresh food, not only yield better milk than can be got elsewhere during nine months of the year, but that, if their number be confined within reasonable limits, they may be kept so clean as to be far less injurious to the neighbours than the same number of horses would be.

But it is acknowledged that the rearing of town infants is a work of difficulty. Stale milk robbed of its cream, foul bedroom air all the year round, gin, and epidemic disease are quite enough to destroy the children of women whose occupations as seamstresses or factory girls at once deprive them of the robustness essential for the procreation of vigorous children, and of the knowledge of housewifery and of maternal duties. It is in the country that we ought to expect abundance of milk and vegetables! Alas! Lord Shaftesbury and the Ladies' Sanitary Association, to their great credit, pointed out some time ago that milk is absolutely unattainable in many rural districts, and they urged upon landowners the necessity and charity of making special provision for the poor in rural districts. Their facts and suggestions are amplified in the very able and voluminous reports by Dr. E. Smith on "The Food of the Poorer Labouring Classes in England," appended to the Sixth Report of the Medical Officer of the Privy Council. Dr. Smith shows that in *England* the average quantity of milk obtainable by agricultural labourers and their families is 32 fluid ounces *per week* per adult, and two children under 10 are reckoned as one adult. Hence, although there are some districts where large landowners and farmers take pains to supply it at some inconvenience to themselves, and although skimmed milk is to be had easily in some dairy counties, yet, take England as a whole, it is one of the articles most difficult to be had by the poor; nay, worse still, says Dr. Smith, "in many districts, and those perhaps where the farms are the largest, as in Wiltshire, the farmer finds it a trouble to serve the skimmed milk to the customers. The dairy-maid is needed for other work, and the mistress thinks it below her position; and hence he gives it to his calves, pigs, and hounds, and refuses it even to his labourers. I found families living in the midst of plenty of this kind of food who would have willingly purchased it, but had not been able to obtain it for two years, and where in consequence the health of the children suffered." One woman is mentioned as averring that she had brought up five children, the whole of whom had not drank one gallon of milk.

There can be little doubt of the truth of Dr. Smith's conclusion—that "the quantity of food obtained by the wife, and also by the children at the period of rapid growth, is in many cases, and in almost every county, deficient, and particularly in nitrogen;" neither can it be doubted that the labour of women in the fields adds to the labourer's income—enables him to pay rent, and buy shoes, and to feed the children better, and likewise that the outdoor exercise and better food improve the health of the wife. But at what cost? Simply at the cost of the lives of the younger children, to say nothing of education and morals. It comes to this, that children are killed in order that their mothers may live.

This is most fully made out in a report on the excessive mortality of infants in some rural districts by Dr. H. Julian Hunter, also appended to the Report of the Medical Officer of the Privy Council. It seems that in the *fenniest* districts of England—that is, around the estuaries of the Humber, the Wash, the Yare, the Medway, and in the inland marshy district of Wayland and Guiltcross—the mortality of infants under one year varies from 20 to 24 per 100 living. All the Medical men of these districts are unanimous as to the causes. The women are employed in field labour, and in bringing large tracts of land into cultivation. There is no doubt but that the *districts* are rendered more salubrious; and the labouring women, "who, whilst sitting at home, used to suffer much from rheumatism and colds, now supply the labour, enjoy the health, and receive the wages of men." But see at what cost. Chastity is unknown; artificial abortion, or attempts at it, common; and with both married and single the toil in the heat of the sun induces premature births, and, of course, weakly children. The mothers being absent in the fields, commit their babies to the "care" of old women, who are skilled in conducting them quickly to a place where they will be "better off." Sour bread pap soon does the work. Some older mothers, it is believed, resolutely starve their infants. Then there is the unfailing bottle of "quietness."

The greatest glutton after facts of social science will find them to satiety in these portions of Mr. Simon's Report. Then comes the question "Can anything be done? and who is responsible?" It would be but fair for all landed proprietors to see that their labourers can get milk for their children. It would be a very small matter in itself, but it would be a beginning.

THE WEEK.

SELECTION OF A PHYSICIAN-ACCOUCHEUR FOR H.R.H. THE PRINCESS LOUIS OF HESSE.

The Profession will learn with great gratification that Professor Priestley, of King's College, has been appointed to attend the Princess Louis of Hesse at Darmstadt in her approaching confinement, which is expected to take place about the latter end of October or the first week of November. We have much pleasure in congratulating Dr. Priestley on the honour which has been thus awarded him. We have before remarked on the admirable manner in which our Court appointments have been bestowed, and we think the present only another instance of the happy selection exercised by Her Majesty's advisers in professional matters. According to an announcement in the *Globe*, Sir Charles Locock is now at Berlin waiting for the daily expected confinement of H.R.H. the Princess Royal of Prussia.

BRANDING IN THE ARMY.

We understand upon good authority that his Royal Highness the Field-Marshal Commanding-in-Chief has seen fit to issue a circular from the Horse-Guards, by which the present very objectionable plan of branding soldiers is removed. When the necessity for marking a soldier occurs, *the operation is to be performed by the Drum- or Trumpet-Major at the orderly-room, in the presence of the Adjutant, and under the immediate supervision of a Regimental or Staff Medical Officer.* This is as it should be; and we congratulate the Profession that a Medical officer no longer occupies a derogatory and false position, and the Duke of Cambridge that he has had the good sense to concede an alteration which was very urgently required.

THE PREVENTION OF SCURVY IN THE MERCHANT SERVICE.

Mr. Henry Leach, Resident Medical Officer to the *Dreadnought*, in a letter to the *Times* of August 26, has directed attention to the quality of the lime juice supplied to merchant vessels as a cause of that prevalence of scurvy in our mercantile marine which is one of the topics on which the Medical officer of the Privy Council treats in his recent Report. He states that he has been "constantly told by patients under treatment for scurvy that 'they would not, or could not, drink the lime juice served out during the voyage because it was so very bad.' All lime juice used in the Royal Navy has for many years been mixed with a certain proportion of spirit (generally rum), for it is well known that lime and lemon juice are very difficult to keep in a pure state when exposed to vicissitudes of temperature. By this means its antiscorbutic properties remain unimpaired, and as a drink it is rendered far more palatable. This latter reason for the addition of spirit is one by no means to be despised; for, as in our mercantile navy the plan of seeing that each man drinks his ration of lime juice daily at the capstan head is not, and perhaps cannot, be enforced, it is the more important that all facilities should be given for its regular imbibition. Few will declare that the sailor who, when he receives his daily or weekly allowance of lime juice, flings it away in supreme contempt, would get rid of the mixture in the same manner; and I cannot but feel assured that were a clause inserted in the Merchant Shipping Act compelling all lime juice used on board East India and China vessels to be mixed with a declared proportion of spirit before being shipped, and an officer appointed to test and inspect the mixture, the number of cases of scurvy admitted here would be materially lessened, and we should have the satisfaction of knowing that a disease which ought long ago to have been blotted out of our sick returns is, at all events, greatly diminishing in frequency and severity." An anonymous writer in the same paper of August 29 states that much of the so-called lemon juice supplied to ships going long voyages is not lemon juice at all, but manufactured from tartaric and other acids, and flavoured with essence of lemons. If Dr. Garrod's theory be correct, that the antiscorbutic properties of lemon and lime juice depend on the salt of potash they contain, it is clear that no admixture with spirits would render such a compound a preventive of scurvy.

FROM ABROAD.—ACTION FOR MALPRAXIS IN MIDWIFERY—QUESTION OF PROFESSIONAL CONFIDENCE.

A curious action for malpraxis in midwifery, brought in the Court of Common Pleas, Perry County, Pennsylvania, is reported in the last number of the *American Journal of Medical Science*. Two Medical Practitioners were sued for damages by an infant, through her father, for having done her grievous bodily harm by amputating her arm during her birth. In the first place, the case seems an extraordinary example of the delays of the law, inasmuch as the occurrence for which damages were sought occurred long since, the plaintiff when produced in the witness-box being about six years old. This beats the old world hollow! It seems that the mother of the girl being taken in labour, Dr. Ebbert was called to her, and found, after having been in attendance for a considerable time, that it was a case of arm-presentation, complicated with considerable hæmorrhage, the uterus firmly contracting around the arm. Various means were adopted to subdue this powerful contraction, except the use of anæsthetic agents, and Dr. Ebbert, after repeatedly failing to introduce the hand, called on Dr. M'Morris, who, succeeding no better, amputated the

arm considerably below the shoulder-joint, and then passing in his hand delivered the woman. The amputation constituted the sole malpraxis, if any, as both mother and child survived. Two or three Practitioners were called to show that this was bad practice and in no wise facilitated delivery, but the weight of Professional evidence was decidedly in favour of the defendants, nearly a dozen Practitioners, some of old standing and repute, declaring that the complication of arm presentation with profuse hæmorrhage and strong abiding contraction is a very rare one, and that turning was facilitated by the amputation in question. One of the witnesses, Dr. Gilbert, of Philadelphia, formerly a Professor of Midwifery, delivered in court what would have well served as an obstetrical lecture in a class-room, but in this part of the world would have seemed somewhat out of place. However, so preponderating was the Medical evidence that the plaintiff, whose arm had been lost while her life had been saved, elected a non-suit.

How sacred should be the confidence reposed by the patient in the Practitioner, and, in fact, how seldom is it betrayed; and yet circumstances occasionally arise under which its strict maintenance becomes difficult, and a refusal to make revelations is interpreted unfavourably towards the patient. In a recent number of the *Boston Medical Journal* we find some pertinent observations upon this matter, made in view of an instance of recent occurrence there, in which an attempt was made to extort from a Practitioner a statement as to the nature of the malady under which his patient was suffering. The writer observes :—"The position is one of no little difficulty and embarrassment. On the one hand, the proper reticence of a Physician who does not choose to be challenged so peremptorily by an unauthorised person to give information which none has a right to demand of him will probably be construed unfavourably to the party about whom the inquiry is made, and thus an entirely innocent person may, under the maxim that 'silence gives consent,' be subjected to the most undeserved suspicion. On the other hand, if Physicians are complaisant enough to gratify the curiosity of the inquirer in cases where there is no just ground for suspicion, and explain all the circumstances to his satisfaction, what becomes of the cases where there *is* just ground for suspicion? Surely it cannot be claimed that we are bound, under any circumstances short of legal compulsion, to reveal what may blast the prospects of our confiding patient for life, to say nothing of the loss of Professional honour which such a breach of confidence implies. Neither can it be expected that a Physician will positively falsify and deceive the inquirer to cover up what he feels bound to keep secret. What are we to do in such cases? We should have some fixed rule of action, and it would be better if such a rule could be adopted by the Profession as a body, so that each member of it may refer to it on an emergency as a guide which he is pledged to follow. Let our local associations, for instance, vote as a body that they will not, under any circumstances, impart information when appealed to in private concerning any patient, in answer to any inquiry which implies suspicion of the moral character of such patient, and we think that the end will be answered. The printed rule can be shown to the inquirer, and, although an opportunity to clear the character of an innocent person may occasionally, from the very necessity of the case, be thus lost, yet we think that the good resulting will in the long run more than counterbalance the hardship of such instances. Physicians will be prepared with a ready answer on all such occasions, and will thus escape the danger to which a want of presence of mind or an unguarded statement may expose them; while the perilous secrets of the community, which sad necessity opens to the unwilling confidence of members of our Profession, will find only in them the kindly sympathy and advice, or the healing hand, which can do so much to alleviate the misfortunes or remove the consequences of errors, which their experience of human frailty teaches them to look upon with a charity too often derided by the world at large."

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF BIRMINGHAM.

THE BIRMINGHAM GENERAL DISPENSARY.

The Birmingham General Dispensary was established upwards of seventy years ago. It is a very popular institution, and is well supported. The building is large, handsome, and convenient. There live in it two resident Medical officers and one Surgeon Accoucheur. The total receipts of each year amount to about £2500, and the expenditure nearly equals the receipts. For this sum between five and six thousand are annually treated as patients, and between four and five hundred women are attended at their own homes in labour. Lately some clubs have been admitted to the benefits of the charity, against which proceeding the Medical officers have entered, very properly, a protest.

Practice.

The practice of the Dispensary is very extensive; but I need not enter into details, the class of practice being similar to that already described as seen at the General Hospital. One or two special points of practice are worthy of mention.

Dr. Wade has for some length of time made minute and particular inquiries from persons suffering from tænia as to eating raw meat. Almost without exception they have at first denied, but ultimately, when pressed, admitted that they were in the habit of picking bits of raw ham or bacon. They generally seem ashamed of the confession, and hence, no doubt, their reluctance to make it. In the treatment of tænia Dr. Wade uses first a purge of calomel and compound jalap powder taken at midday, and the next morning early a draught with ʒj.—jss. of the oil of male fern. He considers that there are several reliable vermifuges, but that a more palatable one is a desideratum. For lumbrici he uses santonine, and for ascarides quassia injections (infusion of double strength). He has found benefit in some obstinate cases of chronic rheumatism from xanthate of potash, a drug which contains a very large percentage of sulphur.

The Dispensary furnishes a large number of uterine cases, which, indeed, are common among all classes in Birmingham. Zwancke's pessary is that which Dr. Wade has found most convenient and effectual in cases of prolapse. For the diagnosis of granular cervix uteri Dr. Wade finds that digital examination is sufficient, without the use of the speculum. The finger can easily recognise granularity of the os and tenderness on pressure of the cervix; these, taken in conjunction with the well-known symptoms of this condition, are enough to establish the diagnosis of the cervical affection.

Besides recognised plans of treatment, Dr. Wade has found the best results from the use of stimulating suppositories (per vaginam), as, for example, one composed of confection of opium one to two scruples. These relieve the hyperæsthesia which is a common though not necessary accompaniment of granular cervix, which seems to be analogous to granular conjunctivæ, rather than to ulceration. When this is relieved it is not much matter whether the granularity be entirely removed or not; probably in many persons the condition exists without producing any symptoms, and is then innocuous. In some cases, however, caustics must be applied to the canal itself, and then potassa fusa has been found by Dr. Wade to be the most reliable, and perfectly safe if carefully used. Dr. Wade is at present engaged in the perfecting of a vaginal syringe upon a new principle, which promises to be much more effectual than those at present employed, inasmuch as it will secure the retention of the injection in contact with the os uteri and vagina for as long a period as may be desirable, and this without trouble or inconvenience to the patient.

Medical Staff.

Physicians—Dr. J. Anthony, Dr. W. F. Wade, Dr. T. P. Heslop. *Surgeons*—G. Yates, Esq., R. Thomason, Esq., C. Warden, Esq. *Senior Resident Surgeon and Secretary*—John Garner, Esq. *Junior Resident Surgeon*—George Elkington, jun., Esq. *Resident Surgeon-Accoucheur*—David Dyce Brown, Esq.

THE ORTHOPÆDIC HOSPITAL.

The Orthopædic Hospital of Birmingham was the second of the kind founded in the United Kingdom. It was opened in the year 1818, and in the early part of its course was held

in great favour. There is space in the institution for several beds, and fair accommodation for patients; but at the time of my visit none of the beds were occupied. In fact, lately the institution has not been supported so efficiently as the other Hospitals of the town; and the members of the Committee, in their report for 1862, express themselves as labouring under peculiar difficulties. The annual subscriptions for that year amounted to not more than £100, and the donations only to £25; while the expenditure was but little under £200. The cases treated at the institution include a wide range. More than a hundred of the cases each year received are cases of hernia; about one hundred are spinal cases, and from eighty to ninety are knock-knees. In the year 1862 there was one case of hypospadias, three of "spina bifida," and seven of hydrocele. In the same year twelve patients were admitted into the house.

Medical Staff.

Consulting Physician—George Fabian Evans, Esq., M.D. *Consulting Surgeon*—Thomas Freer, Esq. *Surgeons*—Walter C. Freer, Esq., and Charles Warden, M.D.

THE EAR INFIRMARY.

The Ear Infirmary has been in existence twenty years. It was founded in 1844 by the late Mr. Dutton. There are no beds, but the out-practice is large. The last report states that there were admitted during the year 393 new patients and 227 renewed cases, making a total of 620. The number of patients attending during the year, or, in other words, the number of attendances or consultations were 2017, or about an average of 20 per diem, and an average of 6 new cases.

Practice.

I have no special records from this institution, except a few statistical facts, showing the duration of deafness in the patients who applied in the year 1862. Among these deafness had existed in—

50	patients	. 1	year	8	patients	. 14	years
43	,,	. 2	,,	7	,,	. 15	,,
33	,,	. 3	,,	2	,,	. 16	,,
22	,,	. 4	,,	5	,,	. 17	,,
15	,,	. 5	,,	1	,,	. 18	,,
14	,,	. 6	,,	16	,,	. 20	,,
7	,,	. 7	,,	2	,,	. 25	,,
10	,,	. 8	,,	1	,,	. 26	,,
8	,,	. 9	,,	1	,,	. 28	,,
11	,,	. 10	,,	3	,,	. 30	,,
7	,,	. 11	,,	1	,,	. 40	,,
7	,,	. 12	,,	1	,,	. 46	,,
2	,,	. 13	,,				

Making a total of 277
116 under 12 months

393 total.

Of the above cases, 129 came from districts surrounding Birmingham.

The expenses of the institution are extremely limited, being under £100 per annum. The receipts rather more than cover the expenditure.

Medical Staff.

Consulting Surgeon — Joseph Toynbee, Esq., London. *Surgeon*—Charles Warden, M.D. and M.R.C.S. Eng.

BIRMINGHAM DENTAL DISPENSARY.

Through the exertions of Mr. S. Adams Parker, a very useful institution for the treatment of diseases of the teeth of the very lowest classes of the community has been opened in Birmingham under the above title. The Dispensary was founded in 1858, being the second of the kind in England. Its success has been so great, and it has seemed so effectually to meet the wants of the community, that the dental department of the General Dispensary has been closed. In the year 1858 the number of patients admitted was 645; in the year 1863 they had risen to 2128. The cost of the Dispensary is very small, and the receipts less than £100 a year. Great care is taken in the admission of patients to allow none to be relieved but those who are real objects of charity. Persons attempting to impose upon the Institution are firmly refused, and it is not found that any disadvantage results from this course.

Records of cases are carefully kept, and in time will afford very valuable data on which to deduce cases of dental disease. Mr. Parker has ample information as to the injurious effect produced upon the permanent teeth during their formation by the occurrence in the patient of the communicable epidemic diseases, especially measles, small-pox, and scarlet fever.

The notch tooth, described by Mr. Hutchinson as connected with "specific" cause, has not been observed in this institution, although it has been carefully looked for. Cases of facial neuralgia are exceedingly common, and are relieved in great numbers by extraction. Every kind of dental operation is performed in the institution—stopping, scaling, and extraction—and the facilities for students are very great. As yet, however, the Dispensary has been little resorted to as a school of practical science.

Dental Staff.

Consulting Dentist—T. R. English, Esq. *Dentists*—Mr. S. Adams Parker, L.D.S., R.C.S. Eng., and Mr. Fredk. J. Sims.

THE LUNATIC ASYLUM OF THE BOROUGH OF BIRMINGHAM.

This Asylum was erected thirteen years ago. It is under the direction of the Mayor and a Committee of Visitors, all of whom are members of the Town Council. The number of patients treated annually is now a little over six hundred and sixty, the number of admissions in a year being above two hundred. In the year 1863 there were discharged 14·67 per cent. of all classes of patients. The mortality was at the rate of 7·56 per cent.

Patients are admitted into the Asylum mainly from the parish of Birmingham, but others are received without reference to place. Thus, last year, while three hundred and fifty-five were from the parish and forty-nine from Aston Union, which is in the borough, twenty-three were from the county of Lincoln, and fifteen from Leicester, while forty-five were private patients from various parts.

The sums paid for the treatment and housing of patients in this institution vary. For pauper patients from Birmingham 8s. 6d. per head per week is paid; for paupers not of Birmingham, 11s. and 14s.; private patients, 8s. 9d. to 21s. weekly, according to the case.

The average weekly income per patient from all sources is 9s. 5d., and the average expenditure 7s. 7¼d. Towards meeting the expenditure, patients are employed on the Asylum farm and in the manufacture of goods in doors. Last year 284 patients were thus employed. The estimated value of work done by these was £902 8s. 2d., giving a deduction of 4d. per patient each week from the average cost of 7s. 7¼d.

The finances of the Institution are in a most favourable condition. In 1863 there was a balance in favour of the treasurer of no less than £2525 16s. 6d. The expenditure for maintenance was £9515 8s. 1d. The income from parishes, unions, private patients, and goods, £11,774 1s. 8d., to which was added 266 12s. 11d. as produce from the farm.

Sanitary Condition.

With one exception the sanitary condition of this Asylum is perfect, and that exception has reference to the water supply. This supply is fluctuating and indifferent—so indifferent, indeed, that recently the Committee of Visitors has been obliged to borrow from the jail. At the same time, the difficulties of obtaining a proper snpply are not insurmountable, and the managers have been for some time past actively engaged in remedying this acknowledged evil. In all other respects, as I have said, there is nothing left to be desired; and I doubt, in fact, if there is a nobleman's house in the kingdom which, taking it all in all, is so well arranged, while I am sure that there is not one that is anything like so healthy. The ventilation, which is conducted on Hayden's system, as in the Stafford Asylum, answers well. The warming is most complete; the decorations in the galleries are in excellent taste; the cleanliness that prevails is of a model kind; and every species of amusement that can reasonably be supplied is present. The large room set apart for evening recreations is alike applicable for concerts, balls, and amateur theatrical entertainments; a noble room, indeed, with fine oil paintings around the walls, and a lightness and cheeriness which destroys all idea of an asylum. It is enough of itself to effect half the cure in the poor rustic, who, leaving his mud or brick dwelling, finds himself in such a palatial residency. The Lunacy Commissioners, in their report last year to the Lord Chancellor, speak with great satisfaction on the arrangements of this Asylum; and I am not surprised at the fact. They state that in furnishing the additional wards opened during 1862-63, the principle of introducing artistic decorations "has been adopted to its fullest extent, as, indeed, it had already been acted upon generally throughout that Asylum, in completely papering and painting those wards; in decorating the corridors and rooms with the greatest liberality; in supplying them amply with pictures, busts, plants, vases, and matters of ornament; in providing glasses, clocks, and a variety of articles of domestic

furniture, not strictly necessary, but all of them contributing to cheerfulness and the feeling of home. No distinction has been made between the rooms, whether occupied by the best or the worst class of patients; and the increased comfort and attractiveness has had the most beneficial effect upon all."

In addition, there is in each gallery a library of from 100 to 200 hundred volumes of books, with newspapers and other serials; and in the grounds has been erected on the male side a large shed, surrounded by evergreens and forest trees, for recreation. It is proposed also to erect gymnasia in the grounds.

Diet of the Asylum.

The diet is very liberal, and is largely contributed to from the produce of the farm. The bread, which is manufactured in the Asylum, has for the last few months been made with Stevens's bread-making machine. The experiment has succeeded admirably; the bread is made quicker than by the old method, and more cleanly and economically; at the same time much trouble and nightwork are saved to the bakers and their assistants. The scale of diets runs as follows:—

Male Dietary.

BREAKFAST.

1 pint of coffee, 6 oz. bread, and ½ oz. of butter.

DINNER.

Sunday.—9 oz. undressed meat, free from bone (roasted), 16 oz. potatoes, or other vegetables, 3 oz. bread, and ½ pint of beer.

Monday and Thursday.—Meat and potato pie (crust 12 oz., meat 4 oz.), and ½ pint of beer; or 16 oz. of suet pudding, with raisins, and ½ pint of beer. Extra diet these days of meat and vegetables.

Tuesday and Friday.—8 oz. of undressed meat, free from bone (boiled), 16 oz. of potatoes or other vegetables, 3 oz. of bread, and ½ pint of beer.

Wednesday.—1½ lb. of Irish stew (of 4 oz. meat and 16 oz. vegetables), and ½ pint of beer, with 3 oz. of bread. Extra diet this day of meat and vegetables.

Saturday.—1½ pint pea soup (meat same as stew) and 6 oz. bread, or 16 oz. of rice or other pudding, and ½ pint of beer. Extra diet this day of meat and vegetables.

TEA.

1 pint of tea, 6 oz. of bread, and ½ oz. of butter.

Extra diet as per Medical order.

To Patients Employed.—At 11 o'clock a.m. 4 oz. of bread, 1 oz. of cheese, and ½ pint of beer. At 4 o'clock p.m. ½ pint of beer, from Lady-day to Michaelmas.

Female Dietary.

BREAKFAST.

1 pint of coffee, 6 oz. of bread, and ½ oz. of butter.

DINNER.

Sunday.—8 oz. of undressed meat, free from bone (roasted), 12 oz. of potatoes, or other vegetables, 3 oz. of bread, and ½ pint of beer.

Monday and Thursday.—Meat and vegetable pie (crust 9 oz., meat 3 oz.), and ½ pint of beer; or suet pudding 12 oz., with raisins, and ½ pint of beer. Extra diet these days of meat and vegetables.

Tuesday and Friday.—7 oz. of undressed meat, free from bone (boiled), 12 oz. of potatoes, or other vegetables, 3 oz. of bread, and ½ pint of beer.

Wednesday.—1 lb. of Irish stew (4 oz. meat and 12 oz. vegetables), 3 oz. of bread, and ½ pint of beer. Extra diet this day of meat and vegetables.

Saturday.—1 pint of pea soup (meat same quantity as stew), and 6 oz. of bread, or 12 oz. of rice or other pudding, and ½ pint of beer. Extra diet this day of meat and vegetables.

TEA.

1 pint of tea, 6 oz. of bread, and ½ oz. of butter.

Extra diet as per Medical order.

To laundry workers, kitchen patients, and house cleaners, at 11 o'clock a.m., 4 oz. of bread, 1 oz. of cheese, and ½ pint of beer.

Medical Practice.

Mr. Green, the very able Medical superintendent of the Asylum, to whom the patients are largely indebted for the various comforts bestowed upon them, was so good as to lay before me a variety of interesting facts bearing on the Medical practice of the Institution. The influence of sanitary measures in preventing epidemic disease is as marked in this as in other asylums. Epidemics may, in fact, be considered as chased out directly they enter, if by accident even they are introduced. Mr. Green notices also with just pride that phthisis pulmonalis, owing to the purity of the air, is very rare as a disorder in the establishment, or as a principal or auxiliary cause of death. The fatal cases from this disease average little over four per annum, and in the large majority of these the malady had originated and become far advanced prior to admission. The number of each sex under treatment is now nearly equal, but the females are a little in excess. In 1853 the average daily number of males was 221, and the females 264. Of 514 patients in the house on the first day of the present year, 76 were considered curable and 438 incurable. As regards their social state, 199 of them were married, 266 were single, and 49 were widowed. There were 91 epileptics, 41 paralytics, 15 congenital imbeciles, and 15 criminal lunatics. Of the forms of disorder in 211 cases admitted during one year, 26 were suffering from acute mania, 92 from mania, 12 from mania and paralysis, 19 from mania and epilepsy, 26 from melancholia, 12 from dementia, 13 from dementia and paralysis, and 4 from congenital imbecility.

It is worthy of remark that in these forms of disease sex causes a considerable distinction; cases of acute mania are pretty fairly equalised between the sexes; cases of sub-acute or ordinary mania are in greater abundance amongst males; cases of paralysis and mania are infinitely more numerous amongst males, while cases of melancholy are much the largest amongst females, and I think the same rule obtains in regard to congenital imbecility.

The effects of education and of religion are of interest. Of the two hundred and eleven admitted in 1863, one hundred and fifty-one were able to read and write, twenty-two were able to read only, and thirty-eight were uneducated. It would not be fair, however, to reason from this that the ability to read and write increased the number of sufferers; it is rather the fact that the majority in the district who could be affected were able to read and write, and that the minority was uneducated.

In respect to religious persuasion, one hundred and forty-two belonged to the Established Church, forty-five were Dissenters, nineteen were Roman Catholics, and five were Jews. The large preponderance of members of the Established Church, in a district where dissent prevails so greatly, is worthy of notice, although not, perhaps, of special moment, since it is possible that after all a larger population of church people may account for the difference.

Of the causes of death in the fatal cases for one year (1863) we have an analysis in the following table:—

Causes of Death in the Fifty Fatal Cases.

	M.	F.	Total.
General paralysis	14	2	16
,, ,, and sphacelus	1	—	1
,, ,, and diarrhœa	1	—	1
Ordinary paralysis	—	1	1
Epilepsy	1	2	3
Softening of brain	1	1	2
Convulsion and coma	1	—	1
Maniacal exhaustion	—	1	1
Phthisis	3	2	5
,, and pneumonia	3	—	3
,, and brain disease	3	—	3
Pneumonia	2	2	4
Bronchitis	1	2	3
Abscess and gangrene of lung	1	—	1
Heart disease	2	1	3
Chronic mania and old age	1	—	1
Dysentery	—	1	1
	35	15	30

Average age at death—Males, 43; Females, 46.

I regret I have not time to record many very interesting special cases to which Mr. Green directed my attention; but I must mention one which shows what severe injuries are borne with impunity in these asylums. A man, in a fit of desperation, positively cut his head transversely across, and deliberately scalped himself, so that the calvarium was laid bare. He was arrested before he could do further mischief, and, under treatment, entirely recovered. This case is as remarkable as the one recorded as occurring under the practice of Dr. Bower, at the Stafford Asylum, where one of the inmates, as will be remembered, opened her abdominal cavity, and after cutting away several inches of intestine, made a sound recovery.

On the question—Why, in cases of this severe description,

recovery should take place so rapidly?—two views will doubtless be offered. Those who have no belief in sanitary science or in purity as an element of cure will have recourse to a clever sophistry. They will argue that insane people are not as others, but bear the most terrible inflictions without danger, inflictions under which persons of sound organisms would die. Those, on the other hand, who believe in sanitary science and in purity as an element of treatment all important and unmistakeable, will say, that the results are due to the perfect hygienic conditions of these establishments. For my own part, I have no alternative but to join with the latter; I cannot permit myself to accept, even on *à priori* reasoning, the assumption—for it is nothing better—that a diseased brain confers recuperative power either on the organism altogether or on any part of it. But I am not guided by inference in this matter. It has been my province to see the insane subjected to injury in houses where hygienic conditions were ignored, and I can testify, as I have no doubt others can who have engaged more largely in the treatment of lunacy, that under these circumstances wounds inflicted on, or accidents sustained by, lunatics are recovered from, certainly not better, but in most cases with infinitely more difficulty than when persons of sound and vigorous constitution have been the subject of treatment for similar injuries. Thus I have seen gangrene follow amputation of the finger, erysipelas succeed on slight wounds, and wounds of a simple kind suppurate most extensively in insane persons; and I can recal no circumstance, either in public or private practice, that can give a shade of countenance to the absurd speculation that insane people bear physical injuries better than the sane. Let us, then, receive, as a simple and most useful lesson, the fact that in the Asylum, where almost the first principles of hygiene only are found, Surgical practice obtains its best reward—speedy cure, and that union by the first intention is to be insured, not so much from stitch, strap, or bandage, as from the conditions, in the way of perfect cleanliness, by which the patient is surrounded.

I have reported on several previous occasions on the value of digitalis in the treatment of acute mania. In the Birmingham Asylum the same remedy has been used by Mr. Green on an extensive scale, and with results similar to those previously recorded in these pages. I find, nevertheless, that Mr. Green is not so enthusiastic an advocate in favour of the drug as others whom I have met. He admits the power possessed by digitalis in quieting excitability; he admits that it produces sleep without giving rise to those secondary effects common to opium when used as a sedative; and he has met with many severe examples in which it (digitalis) was *the* remedy. At the same time, he has had some experience of danger, which has rendered him more than usually cautious. In one case specially the cumulative property of the drug was so marked and decisive that death was feared from the depression induced, and the patient was in danger for many hours. In other cases, the same dangers in a less severe form have presented themselves.

Thoughts on Sick Hospitals and Asylums.

I cannot allow this opportunity to pass without striking a contrast between the management of Hospitals and of Asylums. I refer particularly to the administrative management, not to the Medical or sanitary, because it were absurd to institute a comparison between the sanitary conditions of Hospitals for the sane and the sister institutions for the insane. The first (Hospitals) are places where communicable diseases must grow, where the poisons of these diseases are housed, hot-bedded, and fostered, where dried purulent matter is boxed up like choice snuff, and where students would not be considered to have learned half their education if they were not made acquainted with fatal disorders, the presence of which is entirely artificial and unnecessary. The latter (Asylums) are the pink of perfection, as citadels into which the poisons of communicable maladies can enter only by strange stealth, and, having entered, can hold place no longer than a burglar could, or a boa-constrictor. But to return to these administrative matters: there is something to learn regarding them also, and three facts particularly.

1. The Asylums, when conducted like the Birmingham and the others to which I have drawn attention, are all managed with much less outlay than the Hospitals. What Hospital is there that sustains its inmates the year round at 7s. 3d. per head weekly, feeding such inmates, too, on the very best of food, and giving a fourth of extra food for hard work? It would be very difficult, I take it, to discover many Hospitals so circumstanced; indeed, we find that a cost of 9s. per week per patient is considered in Hospital administration as remarkable economy.

2. The Asylums contrast favourably in another particular. *They pay*, while the majority of Hospitals—I had almost said all Hospitals which are not lavishly endowed—are deeply in debt. It is not difficult to assign reasons for this. The patient who goes into an Asylum enters on an understanding that has a business character about it. He is not forced in with a Governor's order, but is received, as he would be in an hotel, if there is room for him and every accommodation. For what he pays, or his friends or the parish pays for him, he receives a fair return; and as the managers of the institution, obliged, as they are, to permit no undue pressure, know precisely by their calculations what they can do for a given amount of money, and what will yield them profit, they are led into no kind of error, and at the end of one year are landed safely on another. But what is business in the Asylum is chaos in the Hospital; no! I am wrong, I mean benevolence. In the Hospital it is Mr. Subscriber's will that Mr. Sickman shall go in for a subscription; it is in vain there for the superintendent or the committee to argue on figures, or to say—more we cannot do than can be paid for. Mr. Subscriber, led on by passionate appeals to his generosity, has subscribed on certain conditions, and in the name of such appeals themselves shall not such conditions be realised? And so the contract is carried out; where there should be one bed there are two, £10 notes are spent for £5, the mortality is driven up to the highest point: at the end of the year the institution is actually bankrupt, and when the governors meet they positively flatter themselves with a vile doctrine, that it is wholesome for a charitable institution to be in debt, as a position so enviable stimulates flagging energies, and affords reason for a yet stronger appeal to a benevolent and discriminating public.

3. The last advantage of the Asylum over the Hospital is that when all the accounts of the Institution are fairly settled there remains a handsome profit. There are no honorary officers in the Asylum; the Medical superintendent is paid three, four, and even six times more than the Hospital House-Surgeon, the chaplain is paid, the clerk or secretary is paid, the steward is paid, the matron, the nurses (male and female), and all the other officers and servants are handsomely paid; and such is the value of every appointment in these county institutions that they are filled immediately they are vacant, not with make-shifts, but with persons competent as they are trustworthy. When all this is done there is a balance to the good, in such an Asylum as that of Birmingham, of upwards of £2500, which is not at all peculiar to this one Asylum. If there be not a lesson to be learnt here by the managers of general Hospitals, where will they go for it? Do they not see that what others can do they also can do? And will they not see how much better every arrangement would be, how much truer every joint in their machinery would work, if they were more business-like in their organisation and less pretentiously charitable? Take the simple point of the £2500 profit, for instance. How far would that sum not go towards a proper remuneration of the Medical staff? There is an Hospital containing a daily average of 480 patients. Assign these patients in such way that every twenty of them shall have the services of an experienced Physician or Surgeon, then divide the £2500 amongst the Medical staff, excluding the resident officers, who may also be handsomely paid, and even with this extreme division of labour there will remain £104 per year for each of the twenty-four Physicians or Surgeons.

I confess, for my part, that no reason that deserves the name can possibly be adduced against the application of the Asylum principles to the administration of Hospitals. I cannot see why, if the parishes must needs pay for the treatment of all their poor who are mentally afflicted, they should not also pay for their poor who are bodily afflicted. Nor can I discover why friends who can pay eight shillings a week for an admission into the Birmingham County Asylum, cannot equally well pay the same sum for admission into the General or Queen's Hospitals. What object, then, for the distinction? Charity! Caste? Does anybody believe that there is any more real charity in a county Hospital than in a county Asylum? Is it assumed for a moment that the science of the one stands above the science of the other? Or is it even dreamed that a visiting Physician to an Asylum on receiving one hundred or one thousand pounds a-year for his trouble, loses either caste, dignity, or influence by that same act? As well say that the Lord Chancellor and the Archbishop of Canterbury would hold a more dignified position if their services were rendered gratuitously to the nation.

THE WORKHOUSE.

The workhouse at Birmingham, situated at a little distance from the town, is one of the largest institutions of the kind in the kingdom; it is, in fact, a small colony, and has attached to it an Infirmary larger than the generality of those institutions. On the third day of the present year there were in the house 1700 inmates, besides 281 in the tramp wards as temporary occupants. In the week ending on the 3rd ult., there were nine deaths and four births. In the same week there was consumed 9977 pounds of bread, 395 pounds of butter, 203 pounds of cheese, and 3144 pounds of animal food.

Practice of the Infirmary.

The Infirmary to which I have briefly referred is under the superintendence of Dr. Edmund Robinson, who resides there. The number of cases under his charge amounts to between 400 and 500. I have time only to refer to two or three points of practice in this clinique.

The Sounds of the Heart in a Woman 103 Years Old.

I found in one of the wards a woman by the name of Hodgets who had attained the remarkable age of 103. She is somewhat emaciated and shrunken, pale and feeble. She has been bedridden many years. Her faculties are now failing; she is exceedingly deaf, but can see moderately well. She talks little except when made angry, when she can tell the bystanders sharply enough what they are about. Her recollections of the past are extremely limited. She eats, drinks, and sleeps horoughly well, and all the secretions are natural.

As I had never before met with a person who had passed their hundredth year, I was very anxious to make a careful auscultation of the lungs and heart, and did so. In the lungs the pure vesicular murmur was heard in every part; there was no evidence of bronchial difficulty, nor, in fact, of any structural change; owing to the thinness of the chest, the murmur was rather louder than is usual in the adult; it was, in fact, like the respiration of a child of two or three years old.

The sounds of the heart were as perfect as was the respiration, the most exact measure being kept in regard to the times of the first sound, the second sound, and the pause. The quality of the sounds was equally pure; there was not the least harshness nor coarseness; no accent, no sharpness. The action of the organ was naturally feeble, and the strokes were 58 in the minute. Between the respiration and the circulation there was natural harmony.

I could make out no important facts respecting the previous life, health, and habits of this old lady. She has never been married, but is reported to have had a child in early life—a statement which she to this day indignantly denies. Respecting, therefore, her constitutional antecedents, I have nothing more to say; but, for the benefit of a large and much-abused class of society, I must add one important fact—viz., that she is a confirmed smoker. Through her life she has been wedded to the pipe, and no greater punishment could be inflicted upon her than to deprive her of the solace it affords.

Hereditary Cyanosis.

Some very interesting cases of cyanosis have recently occurred under Dr. Robinson's care. I saw one of these cases, a boy, in whom the blue condition of the body, with clubbed fingers and cold external surface, was broadly marked. I noticed in this, as I have previously noticed in other cases, that the coldness of the surface was mainly objective, the patient himself not seeming to appreciate it. I also found for the first time in my experience of cyanosis a loud, rasping, systolic murmur. In another part of the house a sister of this lad presented also symptoms of the same disease with systolic murmur. The symptoms were much milder.

In another example reported to me by Dr. Robinson, a child was admitted with cyanosis; six other members of his family, viz., one brother, one sister, his mother, his two maternal aunts, and his grandmother, having all been sufferers from the affection.

In a lecture delivered by me in December, 1860, and reported in this journal in 1861 by Dr. Schofield, I entered so fully into the various points connected with the study of this disease that I will not trespass in this place in commenting upon the cases described above, except to point out that the statement made by Wilkinson in the beginning of this century in contravention of Crawford's theory of animal heat—namely, that in the cyanotic the external temperature of the body is always sustained at the natural standard, was not borne out in the case of the boy to whom I first referred; and that his case, as well as the other named, points out clearly that malformation of the heart, when once started, may be transmitted hereditarily as surely as harelip, cleft palate, or other similar deformities.

Case of Syphilitic Gangrene.

The following remarkable case is from the notes of Dr. Robinson:—

Sarah L., aged 18, a prostitute, of florid complexion, short, and plump, was admitted into the Infirmary on April 1, 1864.

Symptoms.—The pulse was at 80, the tongue was clean, and the skin active; there was slight gonorrhœal discharge, and both breasts were completely black from the nipple to the base; the blackness extended two or three inches below on the right side, the whole presenting the appearance of the soft parts having been violently bruised. She stated that she has not had any blow or injury whatever, but that the discolouration commenced about four days previous to her admission, and that she had been living upon the best of food till within the past fortnight, when she began to feel "low and out of sorts."

Previous History.—About eighteen months ago she was admitted to this Infirmary with syphilis and gonorrhœal discharge, but, owing to her "romantic disposition," she, after the third day, absconded with several other girls in a state of nudity "for a lark." She was taken into custody by a policeman, and committed to gaol for fourteen days. Since that period until the present time she had had no Medical treatment, the sores "healed up of their own accord," but the discharge never entirely ceased. She had been leading a most riotous life of drinking and prostitution, supporting a fancy man by her earnings.

Progress.—The second day after admission unmistakeable signs of gangrene commenced in both the mammæ, the pain was excessive; she was ordered a cinchona and wine mixture, opiate at bed time, and fomentations to be applied to the breasts; wine was allowed also, and beef-tea. The process of gangrene went on without intermission until the 16th, when both mammæ had sloughed entirely away, leaving two large granulating surfaces. Her appetite was good, tongue clean, pulse 85; she was able to take beefsteak for her dinner, eggs and bacon for breakfast, and two glasses of wine in the day. There was free discharge of healthy-looking pus from the previous site of the mammæ. Medicinally quinine and iron were prescribed. On the 19th her left foot became discoloured, and it was immediately enveloped in cotton wool. On the 21st her left hand became blackened, and appeared like the foot; the process of gangrene completely amputated the foot at the ankle-joint on May 10, and separated the whole of the phalanges of the hand, leaving the metacarpal bones all exposed. On the 15th the line of demarcation was not so defined or regular as in the mammæ. The effluvia throughout was most offensive, requiring the greatest persuasion to prevent the nurse leaving her post. About this time a remarkable change took place in the general behaviour of the patient, for, as previously her language was foul and indecent, now she took to singing and praying. On May 20, the right foot and right hand became discoloured; these symptoms passed entirely away from the foot and the hand, leaving the first phalanx of thumb and forefinger gangrenous only. On the 23rd her face and eyelids became swollen and slightly discoloured for three days, but these symptoms passed away, leaving her with complete loss of vision, which up to this time had been perfect; the pupils were dilated, the iris and cornea quite clear. She remained about the same until May 30 when marks of discolouration were observed on the left side, extending to the spine, the result of this was a large abscess, which broke on June 12, discharging about a pint of pus per diem until June 20, when she expired, twelve weeks after the appearance of the first symptoms of the gangrene. Throughout the appetite never failed, the bowels acted healthily, the pulse remained steady, until the abscess formed, but immediately that reparation commenced in one part gangrene was at work in another. A post-mortem was not allowed, but it was ascertained that the old chancres had healed with a hardened cicatrix. It was reported that about a quarter of an hour before her death she stated her eyesight had returned, and that she could plainly distinguish the nurse at the end of the ward. She lay upon a water pillow from the second week, and until the last few days there was not the slightest symptom of a bed sore. Several experienced Surgeons watched the case with Dr. Robinson.

GENERAL CORRESPONDENCE.

ON NERVOUS ACTION, ETC.

LETTER FROM DR. RADCLIFFE.

[To the Editor of the Medical Times and Gazette.]

SIR,—As the review of my "Lectures" (contained in the last number of your journal) appears to me to be neither fair nor clear in all respects—as, indeed, the reviewer himself says that he has "experienced some irritability and much impatience while reading my lectures," and also confesses to an inability to interpret my meaning in many places—I hope you will allow me the opportunity of stating in my own way what is the main drift of my argument.

In the view of nervous action proposed in these "Lectures" I attach primary importance to the influence of the natural electricity which is inherent in living nerve; and herein is my great difficulty, for as yet the great facts upon which I in reality base my argument are not yet fully recognised and appreciated as facts—at least, in this country. I argue in this manner.

It is a fact that living nerve is charged with electricity during the state of rest, the longitudinal surface being electrified positively, and the transverse section negatively. Of the presence of this electricity there can be no doubt; of its condition it is not possible to speak so positively, but the evidence, so far as I can judge, shows very clearly that this condition is one of static and not of current electricity—that, in fact, the "nerve-current" of Professor Du Bois-Reymond is a secondary, and not a primary phenomenon.

It is a fact that the electricity which is inherent in the nerve during the state of rest is discharged when the nerve passes from the state of rest into that of action, and that this discharge produces a decided commotion, an electric storm, in the space beyond the nerve. This discharge, as Professor Matteucci, its discoverer, shows, is analogous to that of the torpedo: nay, it may even be identical with this latter discharge, for I am disposed to think that the nerves of the electric organ do not differ essentially from other nerves, and that the characteristic discharge of the organ is nothing more than the ordinary discharge which is developed in and around every nerve when it passes from the state of rest into that of action, with this sole difference, that it is *multiplied* by the cells of the organ, and then directed out of the body, instead of being expended within the body. At any rate, it is a fact that an unmistakable electric discharge is developed in and around the nerve when the nerve passes from the state of rest into that of action.

It is a fact that the relative electrical relations of the longitudinal surface and transverse section of living nerve may be reversed, the longitudinal surface being electrified negatively and the transverse section positively, and that this electrical reversal is brought about by the agents which produce nervous action, and at times when the vital and electrical properties of the nerve are upon the point of dying out. It is brought about at the part acted upon by pinching, pricking, or otherwise injuring the nerve; it happens in certain parts of the nervous system when the vitality and electricity of the parts have become greatly enfeebled.

Now, these three facts supply the foundations upon which I construct my theory of nervous action.

The first fact shows me that living nerve during the state of rest is provided with an agent whose *modus operandi* is more or less intelligible, namely, electricity.

The second fact shows me how muscular motion or sensation may be brought about by nervous action, for it is easy to perceive that the electrical discharge, analogous to that of the torpedo, which discharge gives rise to a decided commotion, an electric storm, in the space around the nerve, may give rise to muscular contraction or sensation, if a living muscular fibre or a sensory ganglionic cell happen to be included within range of this discharge.

The third fact shows me how a state of action may be set up in a nerve. It does so, because it is not difficult to understand that to bring parts electrified with negative electricity into relation with parts electrified with positive electricity, and, *vice versâ*, to bring parts electrified with positive electricity into relation with parts electrified with negative electricity—which bringing together is the necessary result of a partial electrical reversal of the electricities of the longitudinal surface and of the transverse section of the nerve—is to bring opposite electricities together—is to do what must issue in electrical discharge, for it is a law of electricity that similar electricities repel each other, and that opposite electricities attract each other, unite, and disappear as a discharge. This question is one which cannot be explained in a few words, and, therefore, I must refer to my "Lectures" for any further information respecting it.

Proceeding further with the inquiry into the physiology of nervous action, I find reason to believe that the action of the blood and of "nervous influence," so called, is one thing in *involuntary* nervous action, and another thing in *voluntary* nervous action, but that in neither case is the conclusion really contradictory to that which has been already arrived at.

It appears to be a fact that *involuntary* nervous action is associated with a deficient supply of arterial blood to the nervous centres. Thus, for example, the last moments of life are spent in convulsion when an animal is killed by bleeding or strangling. Involuntary nervous action in its most marked form, that is to say, is developed under circumstances in which the supply of arterial blood to the nervous centres is very deficient, and in which the development of nervous influence must be almost at zero, if, as must needs be, this development holds any direct relation to the supply of arterial blood to these centres. Moreover, it is difficult to believe that the muscles owe their power of contracting under these circumstances to the action of the blood. For is it not a fact that the muscles which are least supplied with blood during life are most disposed to remain in the state of contraction when once in this state? And is it not also a fact that muscle passes into a state of rigor mortis when the blood is stagnant and dead, and that it relaxes and recovers its vitality and electricity when blood is again supplied to its vessels?

It appears likewise to be a fact that *involuntary* nervous action is associated with a deficient development of "nervous influence" in the nervous centres. Thus, for example, much evidence is furnished in support of this statement, but it is sufficient to refer to the great fact already cited, namely, this—that convulsion is the attendant upon death by hæmorrhage or suffocation; for if the development of "nervous influence" in the nerve centres is proportionate to the amount of arterial blood supplied to the centres, it follows as a necessary consequence that this development must be well nigh at a standstill when the nervous action which gives rise to the convulsion is at its height.

With respect to *voluntary* muscular action, the case is very different. In this case it is plain that the proper manifestation of the will is connected with a certain degree of activity in the functions of circulation and innervation. It is plain, in fact, that voluntary muscular action would be out of the question in the case which has just been instanced as that in which involuntary nervous action is most marked—namely, in convulsion.

How, then, is it possible to explain the fact that *involuntary* nervous action is associated with deficient supply of arterial blood to the nervous centres, and with deficient development of nervous influence in these centres? Is it to be supposed that this state implies the production of that reversal of electricity in some part of the nervous system—perhaps in the medulla oblongata—of which I have spoken as concerned in the causation of nervous action? Such a supposition is possible, for it has been seen that this reversal happens when the vitality of the nervous system is at a very low ebb—under circumstances which may well be supposed to exist in the last moments of life in death by hæmorrhage or suffocation. And such a supposition is all that is necessary according to my view of nervous action. I, therefore, adopt this supposition in preference to the current opinion, which ascribes increased nervous action to increased development of "nervous influence;" for, with less arterial blood supplied to the nervous centres than usual, how it is possible that more "nervous influence" than usual can be developed in these centres?

Nay, I am disposed to think that in *voluntary* nervous action the will may act by producing the same reversal of the electricity of the nervous system in the part acted upon as that which is produced by any agent having the power of originating nervous action; and thus, although an active condition of the circulation and innervation is necessary to the manifestation of the *will*, it does not follow that the same active condition is necessary to the existence of the nervous action produced by the will.

After what I have said of the physiology of nervous action, I may dispose, in a few words, of what I have now to say

respecting the physiology of muscular action and respecting the pathological problems with which I am specially concerned —namely, convulsion, tremor, spasm, and pain of a neuralgic character.

The simple fact is, that the electrical law of muscle during rest and action is precisely the same as the electrical law of nerve during rest and action. What I believe of rigor mortis is this—that the contraction is the result of the muscle being left to the unresisted operation of the attractive force which is inherent in the physical constitution of the muscular molecules by the dying out of the electricity which was inherent in the muscle during life. And what I believe of ordinary muscular contraction is this—that the electric discharge, analogous to that of the torpedo, which is developed when the motor nerve passes from the state of rest into that of action, gives rise to contraction in the muscular fibre which comes within its range, not by acting as a stimulus to a vital property of irritability in the fibre, but by suspending for the moment the electricity which is inherent in the fibre during the state of rest, and so leaving the muscular molecules free to yield to the action of the attractive force which is inherent in the physical constitution of these molecules. The view here taken is one in which ordinary muscular contraction is supposed to be essentially nothing more than the momentary passing of the muscle into the state of contraction which obtains permanently in rigor mortis. The view is one in which it is also supposed that living muscle, left to itself, instantly recovers its inherent electricity, and remains in the state of relaxation so long as this electricity continues to be developed.

With respect to the pathological problems with which I have to do—namely, convulsion, tremor, spasm, and pain of a neuralgic character, I will only say broadly that the facts, so far as I have been able to observe them, are precisely what they should not be, according to the current view of nervous action, and precisely what they should be according to the theory of nervous action advanced in my "Lectures." What I find, indeed, is simply this, that convulsion, tremor, spasm, and pain of a neuralgic character, are associated with a depressed condition of the circulation, and not with the opposite condition of active febrile or inflammatory excitement. I find a state of things which I cannot explain, if, according to the current theory, I am to suppose that convulsion, tremor, spasm, or neuralgic pain is the sign of vital excitement in the nervous system, for in this case I recognise a corresponding state of increased action in the circulation to account for this excitement. I find, on the other hand, that very state of things which I require, if I am to explain convulsion, tremor, spasm, or neuralgic pain, according to my view of nervous action, for according to this view the electrical reversal which brings about the state of nervous action will not happen unless the circulation be in a very depressed state. The question is a simple one. It is—Are the facts as I represent them to be? This is a matter for simple clinical investigation, and not for profound physiological research. It is a matter, too, which may be disposed of before entering upon the consideration of the physiological portion of my argument, for in reality the physiological and pathological portions of this argument are in great measure capable of being considered independently of each other.

I am, &c.

25, Cavendish-square. C. B. Radcliffe, M.D.

THE NEW REGULATIONS FOR THE INDIAN MEDICAL SERVICE.

[To the Editor of the Medical Times and Gazette.]

Sir,—On June 15 a despatch was received by his Excellency the Governor-General of India from the Right Honourable the Secretary of State for India containing the rules and regulations to be henceforth observed with respect to the Army Medical service in this country. This despatch has been published in the Government *Gazette*, and will be in force from the date of its receipt by the Governor-General. As it has a very important bearing upon the position of Medical officers in India, I beg to send you a copy, together with a few explanatory remarks which will, I think, convince you that the change introduced is a very serious one, and will, I hope, induce you to comment in your editorial columns on the folly of diminishing the emoluments attached to Indian Medical appointments at a time when the attractions of the service, even in its present condition, are insufficient to induce men of promise to enter it. I feel the more anxious that the real state of the case should be placed before you because I am induced to believe that an attempt will be made in England to make it appear that the pay of Indian Medical officers has been increased, and that the change will be held out as an inducement to encourage young Medical men to embark on an Indian career.

From paragraph 10 of Sir Charles Wood's letter you will observe that eight different scales of pay are now introduced, varying in amount with relative rank and duration of service, and from paragraph 9 you will perceive that all head money and staff allowance at present granted for independent Medical charges will for the future be discontinued. Under the old rules Medical officers received the pay of their rank as allowed before the publication of the Army Medical Warrant of 1858, Assistant-Surgeons then ranking as lieutenants and Surgeons as captains, and in addition they received staff allowance or head money when in independent charge. When in 1860 the provisions of the British Army Medical Warrant were extended to this country only those clauses were introduced into the Indian document which related to the improvement in relative Army rank; the changes and improvements in the pay of the department, as far as India was concerned, were left for future adjustment. The present order professes to be a realisation of the promises then made, and my main object is to prove that the change, instead of being an improvement, is, on the contrary, for all officers under twenty years' service, except those who are merely attached to regiments, an actual loss. At present, in the Bengal branch of the Indian Medical service, there are only six Assistant Surgeons in the country who are not holding appointments equivalent to a regimental charge; of the six, five are in independent charge of troops of Horse Artillery and draw cavalry pay and head money, whilst only one is acting in a subordinate regimental position. We might have anticipated that the reorganisation of the pay of the Medical department would have resulted in the award to each Medical officer of the pay of his rank in addition to the usual staff allowance, and we should have been justified in this anticipation by the conduct of the Government with reference to our brother officers in the army, all of whom, when holding staff appointments, draw staff salary in addition to the staff corps pay of their rank. An aide-de-camp to a lieutenant-governor, whose duties are certainly of no extremely arduous or responsible character, draws a staff salary of 250 r. per mensem; an officer merely doing duty with a native infantry corps draws a staff salary of 100 r.; officers in the commisariat department draw staff allowances ranging f.om 1000 r. to 200 r. per mensem; the same is the case with the quartermaster-general's department, and with the officers of the brigade and divisional staffs; in fact, all whose position involves the faintest shade of independence or responsibility receive a proportionate remuneration in addition to their ordinary pay. It is hard to conceive why this privilege is withheld from the Medical officers alone; their duties are certainly as important, their responsibilities far greater, and their claims as educated gentlemen unquestionably not inferior.

The pay now awarded to Medical officers is slightly in excess of the pay of their relative army rank; the excess, however, is so trifling, as will appear from the following table, that it cannot in any way be looked upon as an adequate staff allowance:—

Rank.	Years' Service.	Relative Army Rank.	Excess of pay over that of relative Army rank.
Surgeon-Major . .	25	Lieut.-Colonel .	Rs 60 14 0
,, ,, . .	20	,, ,, .	24 5 7
Surgeon . . .	15	Major . . .	36 8 5
,, . . .	10	,, . . .	None.
Assistant-Surgeon .	10	Captain . .	46 7 11
,, ,, .	6	,, . . .	28 3 8
,, ,, .	5	Lieutenant . .	79 2 2
,, ,, .	under 5	,, . .	60 14 0

In paragraph 12 of Sir Charles Wood's despatch it is laid down that British Medical officers in charge of European Cavalry and Horse Artillery are to be allowed to draw, in addition to their pay, horse allowance at the rate of 90 r. if above 10 years' service, 60 r. under 10 years; this privilege is, however, withheld from the officers of the Indian Medical Department. The Governor-General has, pending a reference to the home authorities, sanctioned the issue of 60 r. horse allowance to Indian Medical officers in charge of Cavalry corps, irrespective of their rank; if this proceeding be confirmed, it will modify to that degree the statements of loss or gain in a Cavalry charge in the tables I have prepared.

One extraordinary feature of the new rules is that Medical officers out of employ or waiting for employment will receive exactly the same remuneration as they would in the most arduous position to which they can possibly be nominated; this is not, certainly, a wise method for the encouragement of industry and zeal.

The advantages of the new Warrant are:—Improved furlough allowances, improved invaliding pensions, and more rapid promotion to the rank of Surgeon-Major. The first two of these are merely tardy acts of justice,—they were granted to the British Medical Department by the Warrant of 1858, and ought to have been extended to the Indian Services in the Warrant of 1860.

I am afraid the length of my communication will have taxed your patience; my excuse must be its importance, which I trust you will deem sufficient to warrant you in upholding our cause. I am, &c.

Calcutta, July 8. A Surgeon of the Bengal Army.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, July 6.

Dr. Oldham, President.

The following gentlemen were elected Fellows of the Society:—Dr. Ed. Williams, of Wrexham, and Dr. W. G. Houghton, of Mount-street.

Mr. Harper exhibited an ovarian(?) tumour removed that day by Mr. Baker Brown. The nature of the tumour being a matter of doubt, the specimen was referred to Dr. Greenhalgh and Dr. Braxton Hicks, in conjunction with Mr. Harper, for special examination.

Dr. Snow Beck exhibited a uterus removed from the body of a woman who died on the ninth day after a natural labour, and who presented all the symptoms of a severe form of puerperal fever. The peritoneum was found inflamed after death, and about two pints of turbid fluid existed in the cavity of the abdomen. After a minute and careful examination of the organ, the sinuses, the pelvic veins, the lymphatics, as well as every other tissue, were found perfectly healthy, and the internal cavity everywhere covered by a soft membrane, containing the usual microscopic elements of the mucous membrane. A decided negative was thus given to many of the supposed causes of puerperal fever. But it was shown that the sinuses and pelvic veins permitted air to flow along their cavities, and that a ready means thus existed for the purulent infection of the general system. This open state of the sinuses was further traced to an imperfect contraction of the uterus after the birth of the child, which thus allowed fluid to pass along these canals.

Dr. Murray showed a specimen of fibrous tumour of the uterus. It was interesting from the fact of its growing entirely in the posterior wall of the cervix uteri, without involving in the least degree the body or fundus of that organ. The internal os could be distinctly felt, and sharply separated the sound from the diseased tissue. The patient was in too weak a state to admit of any operation, or that of enucleation might possibly have removed the mass, which was larger than an orange.

Dr. Marion Sims, who was present, in reply to a question, stated that he had practised in certain cases incision of the os uteri for the purpose of restraining the hæmorrhage often present in cases of fibroid tumour of the uterus. His results had been satisfactory; but he had not practised it sufficiently often to be in a position to speak decisively as to its absolute value. He disclaimed originality as to the operation itself.

Dr. Greenhalgh exhibited a pelvimeter made by Mr. Ferguson during the year 1859, which so closely resembled the instrument lately described as a "new pelvimeter," the invention of Drs. Earle and Murphy, that he felt it due to his colleague, Dr. Harris, to state that this instrument was devised by and manufactured for him nearly five years ago.

A paper, by Dr. Robert Greenhalgh, was read

ON PLACENTA PRÆVIA.

The author first alluded to the large mortality both to mothers and children (one in four and a quarter of the former, and about two-thirds of the latter), which he attributed mainly to the severe and repeated losses of blood, to the delay in effecting the delivery, and the method of turning usually had recourse to in these cases. He then gave the details of twenty-four cases which had occurred in his own private and consulting practice between the years 1842 and 1864. He placed before the Society several statistical tables, chiefly taken from Dr. Read's work, to show, in addition to other facts, that the expulsion of the child generally takes place before the full period of utero-gestation—premature labour being the rule and not the exception; that nature, unaided, frequently terminates the delivery with safety both to mother and child; that complete and partial artificial separation of the placenta before the birth of the child has failed in numerous cases to arrest the hæmorrhage; and that these methods and turning had proved most unsatisfactory in their results. Having dwelt at some length upon these several points, he strongly advocated a close observance of the way in which nature terminates these cases with safety to mother and child. Having specified the result of his observations on that head, he confidently recommended the following plan of treatment, which had proved, as far as the limited number of cases could prove, in his hands and in those of others, far more successful both to mothers and children than any other method hitherto devised. It was as follows:—1st. That in any case of hæmorrhage, whether profuse or otherwise, occurring after the commencement of the seventh month of utero-gestation, ascertained to be due to placenta prævia, artificial premature labour should be induced at once, or as soon as the condition of the patient will admit of it. 2ndly. That in order to effect that end without loss of blood, an air-ball, covered with spongio-piline, be passed, collapsed, into the vagina, and then inflated so as effectually to fill that canal, while a bandage is placed firmly round the abdomen; at the same time the ergot of rye and borax are to be administered in repeated doses. He further recommended as aids, stimulating enemata, with tincture of nux vomica, galvanism, and friction over the abdomen. The author concluded by condemning, in the strongest terms, the use of general hygienic means and hæmostatic remedies over days and weeks in these cases, which course, he was firmly convinced, was the cause of many valuable lives being lost.

Dr. Barnes observed that, agreeing generally in the principle that labour should be brought on in cases of severe hæmorrhage from placenta prævia—a principle, he believed, commonly acted upon in London,—he could not assent to much of Dr. Greenhalgh's reasoning, or concur in approving his plug. His statistical reasoning was open to criticism. He assumed two postulates: first, that the mortality of placenta prævia was 1 in $4\frac{1}{4}$; secondly, that the mortality from inducing premature labour was 1 in 53; and he drew the extraordinary conclusion that by always inducing labour we might substitute the low mortality of premature labour induced under selected circumstances for the assumed heavy mortality of 1 in $4\frac{1}{4}$. Now both the postulates were false, and the conclusion was manifestly illogical. The mortality of 1 in $4\frac{1}{4}$ drawn from Dr. Read's tables was a most unfair representation of the results of modern obstetricy. He (Dr. Barnes) had analysed his own cases. Since the publication of his Lettsomian Lectures 59 cases had come under his own observation; and he drew 24 from other sources, most of these last being treated upon his (Dr. Barnes's) principles. The deaths were six only, or 1 in 14. And if he were to follow Dr. Greenhalgh in striking out the fatal cases on the ground that treatment was too late, he might show statistical results very far superior. He should have, not 10 successful cases, but 77. Two of his cases died of pyæmia, having been treated by forced delivery—that is, in direct opposition to his principles; 2 were moribund when seen, and 2 were hopelessly anæmic. He had taken all cases as they occurred in his books without selection or arrangement, yet 26 cases fell as an uninterrupted series of recoveries, which he might fairly place against Dr. Greenhalgh's selected 10. Then as to the mortality in premature labour. Premature labour was induced under selected circumstances to avoid dangerous complications. Such cases were not to be compared with labours forced upon us by the flooding of placenta prævia. This Dr. Greenhalgh disregarded. But surely placenta prævia went for something. Then the children. Dr. Greenhalgh had been fortunate. In his small series of 10 cases he had 8 living children. He (Dr. Barnes) ventured to say that a larger experience would modify this result. Many dangers surrounded the child in placenta prævia: cross-births, funis presentations, immaturity, and asphyxia in utero; some were born putrid. His (Dr. Barnes's) plan was eminently adapted to secure the child. But his mortality was

·63. The very method of Dr. Greenhalgh of bringing on premature labour must of itself often destroy the child, for the floodings would come on at six and seven months. And in some cases flooding did not occur until the end of gestation. These were often the most dangerous. Yet here Dr. Greenhalgh's plan was not available. And what was Dr. Greenhalgh's plan? The use of a vaginal plug, not differing essentially from the colpeurynter of Braun. It acted like all other vaginal plugs, by exciting uterine contraction, if the uterus was excitable. But, unfortunately, in the worst cases, the uterus was paralysed. In these, where art was most necessary, the plug was useless. He was surprised to hear Dr. Greenhalgh undervalue rupturing the membranes. This simple method was in many cases quite sufficient, and no method was long serviceable without it. If, in combination with rupturing the membranes, the placenta was detached from the cervical zone, so freeing the cervix, the cervix then artificially expanded by his cervical dilators, and the bi-manual method of turning resorted to, he was confident, from large experience, that a greater measure of success would be obtained than by any other especial method. He took that opportunity of stating that the first published case of the use of the intra-uterine dilator in placenta prævia which attracted his attention belonged to Mr. Jardine Murray, of Brighton.

Dr. Hall Davis remarked that he had little faith in statistics of placenta prævia representing a mortality of one in three or four from that complication, knowing that former statistics to that effect had included cases originally published, not to show the average mortality, but as selected instances for the most part hopeless when first brought under Medical observation, and intended to prove the fatal tendency of this complication of pregnancy if not timely seen to. He would also observe that we are not left without authority, laid down in lectures and works of reputation, to convince us of the dangers of delay in placenta prævia, and guide us to efficient treatment. He might refer, for example, to the lectures of the late Dr. D. D. Davis at University College from 1828 to 1841, and to his esteemed System of Obstetric Medicine, which taught no temporising treatment, but, on the contrary, the necessity of early and active interference, while at the same time pointing out the hazards of a forced delivery through a rigid os uteri. As to his own experience, he might state that in the Royal Maternity Charity alone he had had, from 1842 to 1862, as Physician of the western district, twenty-four cases of placenta prævia. In that number, twenty-two mothers were saved, and the two deaths would have been averted had the injunctions given been observed. His treatment had varied with the case. Thus, in partial placenta prævia he had found the simple discharge of the waters usually sufficient. When the flooding has not been thus arrested, and delivery has been impracticable by reason of the small size of the uterine orifice, he has plugged the vagina impactedly with sponge, or with a sufficient quantity of other suitable material at hand. He has then waited in security for the first opportunity of acting, if necessary. In many cases, on withdrawing the plug, the head was found descending, and the birth was quickly completed without further aid. In cases of entire placenta prævia, when the os uteri would not admit of delivery, he also resorted to the plug, and of similar materials as before, believing such a plug, from its solidity, when efficiently applied, to be far superior to any elastic dilator. After from two to six hours he was generally enabled to remove the plug and deliver by turning. In this operation he preferred to pass his fingers in by the side of the placenta, where it might already be detached, to perforating its centre, as some have recommended, as this latter mode necessitates a more considerable injury of the placental vessels and further hæmorrhage. In the operation of turning it had been his usual practice to fix the uterus by the right hand applied externally on the abdomen while turning with his left hand. To Dr. Hicks, however, (*Obstet. Trans.*, vol. v.), were we indebted for a definitely-combined mode of external and internal version by acting on the opposite poles of the child, the breech above being depressed by the external hand, while at the same time the presenting head is pressed upwards and to its own side. Then the feet are lowered to the os uteri and one or both brought through; the risk, so especially great in flooding, of passing the hand into the cavity of the uterus being in this way avoided. In conclusion, he might say that, while he differed from the author on the points to which he had referred, he fully concurred with him, as all judicious practitioners must do, that to delay efficient interference in this complication is most hazardous.

Dr. J. Braxton Hicks quite agreed with Dr. Greenhalgh as to the necessity of inducing labour in placenta prævia as soon as arrangements could be made, which he believed to be the plan adopted by all who saw much midwifery in this city; it was the practice he had always adopted. With regard to the statistics quoted from Dr. Read's work, he quite agreed with Dr. Barnes as to their want of value. All large groups of statistics were utterly useless as a guide of any particular practice. It was absolutely essential that the details of the cases should be known. In the tables presented to the Society it was impossible to say what were the surroundings of the patients; whether, in fact, they had died from the operation, from the hæmorrhage, or from the subsequent calamities to which it was known cases of placenta prævia were exposed. How, therefore, could we tell the value of any particular plan of treatment without this information? He considered that when it was said the death-rate was 1 in $4\frac{1}{4}$, there must be some mistake as regards present practice. In the Guy's Hospital Charity it was for nine years at 1 in $7\frac{1}{9}$. He also was obliged to differ from the assertion that the life of the child was not influenced by placenta prævia. That it was so he had no doubt; for in half of the cases he had seen where it was made out clearly, the child was known to be dead before any operation was attempted. He hoped the author would have alluded to the plan which he (Dr. Hicks) had recommended in his recent paper on "Combined Version," because he felt sure that it was a very useful one, and not difficult to any one who would take the trouble to learn it. He had known at least nineteen cases, many of them very severe, in which it had been used, with only one death, and that arising from extreme hæmorrhage before seen, and which could not be put down to version. In all his cases there had been immediate cessation of bleeding as soon as the breech was in the os, and he had found that almost in every case labour pains expelled the child within two or three hours from the commencement of the operation. This point it was important to know in order that we might make our arrangements accordingly. The child was a most efficient plug, and it could be brought down as soon as the os would admit a finger or two. With regard to the small size of the os preventing turning in the above-mentioned mode, he could say it must occur but seldom; when it did so, the detachment of placenta round by one finger generally liberated it considerably, enough at least to introduce two fingers; if not, the elastic bags could be used with much advantage. We must judge of treatment by its practical application: our hands we have always with us; whereas, if called to a case at a distance from home, or in great hurry, it would be impossible sometimes to obtain the plug now shown. The effect of version upon the life of the child he could not compute. Doubtless cephalic was the best presentation; but he had not found in his cases any great mortality. The important point was not to hurry the case after the breech was in the os. The child was generally destroyed by drawing it down before the os uteri was open sufficiently. When the breech was in the os, the case in almost every instance might be left to nature, adopting the rule as in breech cases.

Dr. Graily Hewitt considered the principle enunciated in the paper now read, of the necessity of interference in cases of placenta prævia, to be one of great value. This principle had never been sufficiently insisted on, and although admitted by men of experience, it had not been laid down as a principle in the obstetric text-books. He might mention that two years ago a gentleman in practice in Yorkshire had, in conversation with him, alluded to this very subject, having lost a patient from a suddenly-recurring hæmorrhage, due to placenta prævia. The gentleman in question had hesitated, on the occurrence of the first hæmorrhage, to induce premature labour, not finding such practice sanctioned by the text-books, and the patient, living at some distance, had perished when the hæmorrhage recurred two or three weeks later, before assistance could reach her. Doubtless there were cases of this kind occurring from time to time, and which would have been saved by interference. He considered, therefore, that the expression of the opinion of the Society on this subject would have a most beneficial influence, and that patients known to have placenta prævia would not be left liable to perish at any moment from hæmorrhage. With reference to the particular plan of treatment advocated by Dr. Greenhalgh, which was a modification of the "plugging" system, he had some remarks to make. It was to be recollected that in cases of placenta prævia we have two lives to consider—that of the mother and that of the child. What is best for the one is not always the best—nay, it is frequently the worst—for the child. The safety of the child lay in speedy delivery; the

safety of the mother in preventing hæmorrhage. Plugging the vagina, artificial or partial separation of the placenta, were measures calculated to stop hæmorrhage; but such treatment, unless accompanied with speedy delivery, was prejudicial to the child, whose vitality was necessarily destroyed by separation of the placenta to any considerable extent, with or without concurrent external loss of blood, On referring to Dr. Greenhalgh's statistics, it would be seen that, although the mortality to the mother was, on his system of treatment, low, yet that the per-centage of still-births was high, and the plan in question was, therefore, open to this serious objection. He (Dr. Hewitt) was quite aware that it was impossible to legislate equally well for all cases, the circumstances of each case being, to a great extent, peculiar; but any generally accepted system of treatment must have in view the preservation of the lives of both mother and child. Rapid natural delivery best fulfilled all the indications, and this should be the object sought to be attained in the treatment of these dangerous cases. In a certain number of instances rapid natural delivery was not possible, and under these circumstances the operation of turning offered the best alternative. The extraction of the child should not be performed too soon after the version, unless the bleeding still continued, for until the os was tolerably dilated the neck of the child was likely to be so tightly caught by the os as to prevent extraction. When the fœtal heart was beating very slowly, rapid extraction of course afforded the only chance of preserving its life. In conclusion, he considered the Society under obligation to Dr. Greenhalgh for his very practical and able paper.

Dr. Beatty, of Dublin, in reply to an invitation from the President to address the Society on the subject, said that he addressed the Society under very serious difficulty, for not having had the advantage of hearing the paper now under discussion read at the former meeting, he did not well understand its bearings; but as well as he could collect from the speakers who had preceded him, he inferred that there were two points particularly dwelt upon by the author. The first was the *time* at which we should interfere in cases of placenta prævia; and the second, the *kind* of assistance most proper to be given. It appeared to him (Dr. Beatty) that the author of the paper recommends delivery as soon as possible after the case was fully made out. In this respect there was not much difference between his and the practice very usual in Dublin. We wish to finish the case as soon as possible; but it must be recollected that in many cases speedy delivery was impossible, for occurring as the hæmorrhage most usually does for the first time in the eighth month or even earlier, when the os uteri was little disposed to relax, it not unfrequently happened that the os uteri was so rigid that delivery could not be attempted. We must then temporise, and by means of position, plug, cold, etc., endeavour to gain time, and save the patient from loss of blood as much as possible. He had spoken now of cases in which there was complete covering of the os uteri by the placenta; but in cases of partial covering, where we could feel any portion of the transparent membranes, the practice was to rupture them at once, and discharge the liquor amnii. When this could be accomplished, we feel pretty easy about the case. The head of the child comes down, and by pressure on the placenta prevents any further loss of blood. If the uterus was not disposed to act vigorously, its action was quickened by the ergot of rye. He always depended upon the infusion of the powder made on the spot. It was a medicine that required great care for its safe preservation. He never went out without a drachm of the powder in his pocket case. It was put up in metallic paper, so as to prevent the absorption of the oil by ordinary paper. It should not be kept more than two months in the case. If not used before then it should be replaced by another drachm. When used it was infused in four ounces of boiling water, and half of it, powder and all, given at once, and the other half in a quarter of an hour. When treated in this way the medicine had never failed him. If the case was one of complete covering of the os uteri, we watch the earliest moment at which the os uteri was dilatable, and then proceed to deliver the patient by turning the child. From these few hurried observations, it appeared that the practice in Dublin does not much differ from that laid down by the speakers who had preceded him (Dr. Beatty) in this debate.

Dr. Woodman mentioned some cases in which he had observed the good effects of the treatment recommended by Dr. Barnes.

Dr. Gervis remarked that the observations of Dr. Beatty relative to the frequent necessity of "temporising" in cases of hæmorrhage from placenta prævia, where there existed a rigid condition of the os and cervix, illustrated the main point at issue between Dr. Greenhalgh and Dr. Barnes. Dr. Greenhalgh in such cases advised the use of the vaginal plug, an abdominal bandage with which to maintain pressure on the uterus externally, and the administration of ergot; while Dr. Barnes maintained that his cervical dilators by themselves efficiently superseded the use of the plug, the bandage, and the ergot, inasmuch as while they were dilating the os and cervix, they simultaneously prevented hæmorrhage and excited uterine action. In this estimate of their utility Dr. Gervis entirely concurred. Instead of temporising in any manner, or trusting for the accession of labour to the use of ergot, by these bags you obtained full control of the case from beginning to end; and after adequate dilatation of the os, you could either separate the placenta from the orificial zone, rupture the membranes, and then, if that sufficed to check the hæmorrhage, leave the case to nature, or by the bimanual method of version complete it at will. It was not, of course, meant that the dilators were always needed; but their particular value appeared in those cases where but for their use mere temporary measures had to be adopted until the os had sufficiently dilated to permit of operative procedure, and so possibly lead to a delay that might prove fatal.

Dr. Oldham also agreed that it was important to take steps at once in any case of placenta prævia to accomplish delivery—a plan, he thought, admitted by most practitioners in London, and one upon which he had always acted. However, to effect this object, he believed that nothing was more easy or satisfactory than to turn by the plan recommended by Dr. Braxton Hicks, and to bring down the child into the os. He (Dr. Oldham) had only the night before a case where its application was most satisfactory. He considered the plug, which had been recommended for many years, might be used where the cervix was very rigid, and preventing the introduction of the finger; but its chief advantage was as a provocative of labour, and he doubted if it would be equal to stop hæmorrhage.

Dr. Greenhalgh stated, in reply, that he was very pleased to learn from the several speakers that in these cases they had, one and all, adopted the plan of early delivery advocated in his paper, and mostly with satisfactory results to the mothers, which he maintained was not the course recommended in the standard treatises on Midwifery or pursued by Practitioners in general. He believed that the great success to the children in his cases was mainly due to not separating either a part or the whole of the placenta from the uterus, to retaining the membranes intact until dilatation of the parts had been effected by the pains and plug, and by avoiding version in cases of head presentation, which entailed more or less risk upon mother and child. He was quite convinced that with these precautions a premature child, whose head was small and easily compressible, stood as good, if not a better, chance of being born alive than a child at term. In allusion to the plug, he stated that some years ago, as mentioned in his paper, he had used an inflated india-rubber bag, but had found it ineffectual in arresting the flow of blood from the vagina, which he had never failed to control, no matter how severe, with the spongio-piline plug. He considered the effects of the plug to be as follows:—1st, to prevent the escape of blood from the vagina; 2ndly, to favour its coagulation in the upper part of that canal; 3rdly, to excite uterine action; and, 4thly, to dilate the passages. The author approved and adopted the practice of rupturing the membranes in slight cases of partial placental presentation, and of turning in certain mal-positions of the child; but he said that he had not alluded to this class of cases in his paper. Dr. Barnes having stated that the statistics of Dr. Read were not trustworthy, and that the author of the paper had estimated the mortality to the mothers too high, Dr. Greenhalgh urged in confirmation the results of the practice of the Dublin Lying-in Hospital, and of his own early experience in cases of placenta prævia. In conclusion, he trusted that after the expression of opinion of so many eminent accoucheurs, there could be no doubt whatever as to the propriety of early delivery in these cases, upon which the ultimate safety of the mother mainly depends.

Prize Question.—The Amiens Medical Society offers a gold medal, of 200 francs value, to the author of the best essay on the Public and Private Hygiene of occupations in which *débris*, the detritus of animals, and fæcal matters are utilised. The author will also be nominated a corresponding member. Essays to be sent to the Secretary before June 30, 1865.

MEDICAL NEWS.

UNIVERSITY OF ABERDEEN.—The following Candidates, after the usual Examinations, have received Degrees in Medicine and Surgery during the present year :—

Degree of M.D.

Samuel Davidson, A.M., Wartle, Rayne; George Dickson, L.R.C P. and S., Edinburgh; William Gregory, Van Dort, Colombo, Ceylon; and John Gray M'Kendrick, Aberdeen (honourably distinguished); James Copland, A.M., Edinburgh; John Dunlop, L.R.C.P. and S. (Ed.), Lanarkshire; John Fraser, Granton; James Andrew Sandilands Grant, A.M., Methlick, Aberdeenshire; William Grant, Methlic; James Foote Henderson, Aberdeen; James Alexander Innes, Banff; Alexander Johnston, Aberdeenshire; James Ledingham, A.M., Aberdeen; William Burnup Leslie, Aberdeen; John Robson, Perthshire; William James Smith, Kintore; Charles James Trenerry, M.R.C.S., Gibraltar; Alfred Harold Wheldon, India; George Charles Henry Wigan, M.R.C.S. Eng., L.A.C., Bristol; George Yeats, Aberdeen.

At the same time,

James Ross, M.B. (highest honours) and C M. (highest honours), Aberdeen; William Paterson, M.B. and C.M. (honourably distinguished), Aberdeen; and James Clark, M.B., Aberdeen,

were promoted to the Degree of M.D.

Degree of M.B.

George MacIver Campbell, A.M., Old Aberdeen; Robert Alexander Farquharson, A.M., Ballater; and Andrew Skeen, A.M., Tarland, Aberdeenshire (honourably distinguished); George Andrew, A.M., Huntly; Fredk. Page Atkinson, L.R.C.P.E., M.R.C.S., L.S.A., Kew, Surrey; Theunis Johannes Botha, Cape of Good Hope; Charles Forbes Buchan, A.M., Kincardineshire; Charles Burnett, Alton, Hants; Stewartson Clark, New Pitsligo; James Davidson, A.M., Strichen, Aberdeenshire; Alexander Duncan, A.M., Aberdeen; James Hector, Aberdeen; Robert Keith, Keithhall; Robert Davidson Kemp, Aberdeen; Benjamin Knowles, Aberdeen; John Knox, L.R.C.S.E., Tyrone; Godfrey Alexander Macrae, North Uist; Alexander Minty, Kinnethmont; John Murray, Woodside; William Paterson, A.M., Aberdeen; Archibald George Robertson, Edinburgh; William Robertson, A.M., Aberdeen; Robert John Scott, Beverley, Yorkshire; Peter Shepherd, Leochel-Cushnie; William Henry Stewart, Grantown; George Thomson, Aberdeen; Thomas Watt, A.M., Aberdeen.

Degree of C.M.

Robert Alexander Farquharson, Benjamin Knowles, and Andrew Skeen (highest honours); Frederick Page Atkinson, George MacIver Campbell, Samuel Davidson, William Gregory Van Dort, William Gray M'Kendrick, William Paterson, William Robertson, and Robert John Scott (honourably distinguished); George Andrew, Theunis Johannes Botha, Charles Forbes Buchan, Charles Burnett, Stewartson Clark, James Copland, James Davidson, John Fraser, James A. S. Grant, William Grant, John Gray, James Hector, James Foote Henderson, James Alexander Innes, Alexander Johnston, Robert Keith, Robert Davidson Kemp, Robert Ledingham, William Burnup Leslie, Godfrey Alexander Macrae, Alexander Minty, John Murray, Archibald George Robertson, Peter Shepherd, William Jas. Smith, William Henry Stewart, William Sutherland, George Thomson, Charles James Trenerry, Thomas Watt, Alfred Harold Wheldon, George Charles Henry Wigan, George Yeats.

And at the late Graduation Term, the following were declared to have passed part of their Examinations :—

William Scott Aitken, George Henry Anderson, Thomas D. Atkins, William Sharp Birnie, Arthur Woolsey Blacklock, William Center, Alexander Dyce Davidson, Owen Evans, James Farquharson, Alfred John Freeman, John Smith Fowler, George Garvin, Alexander Gibb Grant, Robert Grant, John Thomas Hughes, David A. Kerr, Joseph P. Lackerstein, Alfred Swaine Lethbridge, William Mackintosh, George Maconachie, William Macrae, Andrew A. Macrobin, William M'Donald, Donald M'Ewen, John Stuart M'Gowan, Thomas Milne, Douglas Moir, David Nicolson, Jas. Rodger, James Alexander Skene, Francis Snaith, Edward Sutcliff, James Taylor, Frederick John Wadd, William Abram Walker, William Leaven White, James Williamson, Horace Winboldt.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, August 25, 1864 :—

Shephard Thomas Taylor, Argyle-square, St. Pancras; Anthony Charles Colborne, Tachbrook-street, S.W.; Joseph Johnson, Hogsthorpe, Lincolnshire; Edwin Turner, Hampstead, Middlesex.

As an Assistant :—

William Williams Mildren, Hayle, Cornwall.

The following gentlemen, also on the same day, passed their First Examination :—

William Knight Treves, St. Thomas's Hospital; John Williams, University College.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BRODIE, GEORGE B., M.D. St. And., has been appointed Physician-Accoucheur to the St. George's and St. James's Dispensary, King-street, Golden-square.

ELLIS, EDWARD, M.D. St. And., has been elected one of the Assistant-Physicians to the North London Consumption Hospital, Russell-place, Fitzroy-square.

FOSTER, BALTHAZAR W., L.K.Q.C.P.I., has been appointed Professor of Anatomy at Queen's College, Birmingham.

FULLER, C. C., M.R.C.S., has been appointed Lecturer on Dental Anatomy and Physiology to the Metropolitan School of Dental Science.

HARRIS, SAMUEL, M.R.C.S. Eng., has been appointed one of the Honorary Surgeons to the Loughborough Dispensary.

KNOWLES, H., L.R.C.P., has been appointed Resident Surgeon to the Birmingham Lying-in Hospital and Dispensary for Diseases of Women and Children.

LYSTER, CHAWORTH E., M.D. St. And., has been appointed Medical Officer for the Toxteth-park Township Workhouse Infirmary and Fever Hospital, near Liverpool.

MCGOWAN, ALEXANDER T., L.R.C.P. Lond., has been elected one of the Assistant-Physicians to the North London Consumption Hospital.

MORRISH, THOMAS F., M.R.C.S. Eng., has been appointed Assistant Medical Officer to the Toxteth-park Township Workhouse.

THORNE, GEORGE L., M.D. Aberd., has been appointed Admiralty Surgeon and Agent for Swanage, Dorset.

DEATHS.

BENT, JAMES, M.R.C.S. Eng., at Barton-on-Irwell, on August 16, aged 56, late of Portland-street, Manchester.

BUSH, MICHAEL A., M.D., at Highwoods, Writtle, Essex, on August 18.

DONOVAN, DIONYSIUS, M.B. Dub., at Hednor, Derbyshire, on August 22.

HUTCHINSON, WILLIAM, Surgeon, at Patricroft, Lancashire, on August 25, aged 59.

LANG, HUGH, M.D., at Mansefield, Largs, Ayrshire, on August 16, aged 84.

LOVER, WILLIAM, M.D. St. And., at Talbot-street, Dublin, on August 23, aged 60.

MARCE, Professor, of the Paris Faculty, and Physician to the Asylum at Ivry.

PERRIN, JOHN WILLIAM, M.R.C.S. Eng., at 7, Charlotte-row, Walworth-road, S., on August 28.

MEDICAL BENEVOLENT SOCIETY, BIRMINGHAM.—Appointments made at the annual meeting on Friday, August 26, 1864 :—Mr. O. Pemberton, *President;* Dr. Fayrer, of Henley-in-Arden, and Dr. Burbury, *Vice-Presidents;* Mr. Archer, *Director*, in place of Mr. T. Freer, resigned.

MEETING OF THE GERMAN PHYSICIANS AND NATURALISTS.—It has been determined to hold the next meeting at Giessen, from the 17th to 23rd September. The managers, Professors Wernher, Leuckart, and Vogt, of the Giessen University, assure the expected guests of the warmest reception on the part of this celebrated city.

CHOLERA IN LINCOLNSHIRE.—It is asserted that a fatal form of cholera has made its appearance in the Lincolnshire fens, and proved fatal in several cases, owing, it is said, to the long-continued drought, which has caused the drains to become little better than stagnant pools. The East Fen in the neighbourhood of Boston, and along by the banks of the Bell drain, are the places where it has made the greatest devastation.

A MEDICAL MEMBER IN THE BELGIAN PARLIAMENT.—Among the returns to the new Belgian Parliament which have secured a majority to the liberal over the priest party, the name of a distinguished member of our Profession, M. Vleminckx, President of the Academy of Medicine, is comprised. A man of great determination and influence, of eloquent speech, and well versed in all the requirements of the Profession, he is likely to secure a fair hearing in the Belgian Chambers of the complaints of the Profession, which are no less urgent than are our own.

THE NEW INDIAN MEDICAL WARRANT.—The new Medical Warrant sent out by Sir Charles Wood has given great dissatisfaction throughout the service. It benefits all, except Surgeon-Majors of 20 years' standing, in this way—it makes their small pay smaller. It cuts down what was too little for the purposes of life before. The Indian Medical service has been a very fine one: it will never reach the same standard again till it is fairly treated, and it may be well for Sir Charles Wood to look that fact fairly in the face."—*Calcutta Correspondent of the Times*, August 29.

THE FIRST CONVICTION UNDER THE BAKEHOUSE REGULATION ACT FOR USING A BAKEHOUSE AS A SLEEPING APARTMENT.—On Saturday, August 27, at the Clerkenwell Police-court, George Augustus Kinnaird, a baker, carrying on business at 60, Arlington-street, New North-road, was summoned by Mr. John Godbold, the person appointed by the local authority as the inspector, pursuant to the provisions of the Bakehouse Regulation Act, 1863, to answer the following complaint:—"For that you did knowingly suffer to be occupied and used as a sleeping-place a certain place being on the same level with the bakehouse, and not effectually separated therefrom by a partition extending from the floor to the ceiling, situate, and being No. 60, in Arlington-street aforesaid, contrary to the provisions of the 5th section of the Bakehouse

Regulation Act, 1863, 26th and 27th of Victoria, cap. 40." The defendant pleaded "Guilty," and said that he had since complied with the provisions of the Act. Mr. Barker ordered the defendant to pay the costs.

DEATH FROM CHLOROFORM AT SAN FRANCISCO.—A lady of very nervous temperament was placed in a dentist's chair to have her tooth drawn, and, while much excited by fear of the instruments, chloroform was administered by holding a napkin above and near the nostrils. After inhaling for a short time, she declared she could not take it, and seizing the hand of the operator removed it from her face. Without further use of it the tooth was extracted easily; but the jaws immediately after became clenched, and her head thrown back by spasmodic action of the muscles. The breathing was arrested, the face grew livid, and death rapidly ensued, apparently from apnœa, due to spasmodic closure of the glottis or larynx. The masseter, respiratory, and spinal muscles, and also the flexors of the extremities continued in a state of tonic spasm until relaxed by death. There was no disease of the heart or other organs to discourage the use of the chloroform.—*Boston Med. Journal*, May 19.

RICHMOND DISTRICT LUNATIC ASYLUM, DUBLIN.—The annual *fête* given to the patients in the above institution took took place on Thursday, the 25th ult. in the spacious grounds attached to the asylum. The day was beautifully fine, and there was a large attendance of spectators, who manifested much interest in the proceedings. The sports consisted of quadrilles, contra-dances, jigs, and reels in the open air to the music of the excellent band of the institution, composed of fourteen patients and seven attendants; also of foot-races, races in sacks, etc., and were entered into with spirit and good humour by those of the inmates who took part in them. In the evening, tea and coffee having been served, dancing was resumed in one of the large rooms in the asylum. The appearance of the patients, their demeanour, and the arrangement of the institution bespoke the kind, enlightened, and liberal character of the management of Dr. Lalor, the Medical superintendent. The asylum stands in an elevated and healthful locality at the north-western extremity of Dublin, and from the grounds about it one of the best views of the city is obtained.

THE ABOLITION OF CAPITAL PUNISHMENT.—The Society for the Abolition of Capital Punishment have issued a circular in which the object of the Society is advocated on the following grounds:—1. It would promote a greater certainty of conviction in cases of murderers committed for trial, and prevent that interference with the execution of the law which has so often taken place of late years. It is the certainty rather than the severity of a punishment which operates as a deterrent. 2. It would at once remove the demoralising effects of public executions. 3. It would prevent those collisions between the Medical and legal authorities which have become so frequent in cases of real or suspected insanity, and would, in fact, bring scientific as well as public opinion more into accordance with the administration and executive functions of the law. 4. As capital punishment confounds all gradations of guilt, its abolition would admit some system of confinement and restraint, which while affording ample security to society against future outrages on the part of the condemned, would enable the authorities to treat him according to the circumstances of the case, and with reference to his state of mind during confinement.

MEDICAL APPOINTMENT IN THE PARAGUAYAN ARMY.—The Buenos Ayres *Standard* of June 28 says:—"The last mail from Asuncion brings intelligence that Dr. Stewart has been named Surgeon-General to the Paraguayan army by order of his Excellency President Lopez. The importance of this promotion may be inferred from the fact that the army placed under his charge amounts to 40,000 men. Dr. Stewart was born of a respectable family in Perthshire in 1831. He made the usual Medical studies at Aberdeen and Edinburgh, and took out his diploma of M.D. at the latter University. In 1853 he was appointed to the Medical corps of the Osmanli Horse Artillery, and afterwards joined the Bashi-Bazouks at Scutari. He was Medical adviser to General Vivian, and crossed the Balkan Mountains to serve in the Hospital at Schumla. At the close of the Crimean war he came out with the Anglo-Italian Legion, which was destined to form a colony in the Gran Chaco. This enterprise having failed, he was engaged by President Lopez for the Army Medical Service in 1857. Since that time he has been a great personal friend of General (now President) Lopez, and raised the Medical service to a high state of efficiency, being assisted by Doctors Barton, Skinner, and Fox, and Mr. Masterman, Pharmaceutical Officer. We believe that Dr. Stewart's present post is worth about £2000 per annum. The Government have also instructed him to write to Professor Laycock for three Medical Practitioners, to whom will be given the rank of Captain, with a liberal salary, house, horses, and servants. Dr. Stewart resides in Asuncion, and has a splendid cotton and tobacco plantation at his country place near Ibicuy, some thirty leagues from the capital."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Inquirer.—The subject has not been lost sight of. The series will be resumed on some future occasion.

Dr. J. A. Magrath.—Professor Harley's lectures will now be continued regularly.

Mr. Tyrrell's paper on the Use of Tobacco in Tetanus shall appear directly.

STARCH AS AN ANTISEPTIC.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Would you or any of your readers kindly inform me if any work contains information relative to the antiseptic properties of powdered starch, and what kind of starch is best suited for wet sores, such as those I have seen in cases previous to enlargement of bones and elephantiasis in the West Indies? I may mention that I have tried starch in cases of virulent itch or mange in dogs, with good results. Also, in cases of swelling from bruised testicle, where all other remedies seemed to fail.

I am, &c.

COLIN M. K. DICK, late Sugar Planter in Trinidad, W.I.
3, Severn-road, Cardiff.

ACTING ASSISTANT-SURGEONS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—A general order from the Horse-Guards has, I see, been issued, stating that Acting Assistant-Surgeons are not required to wear uniform. At first sight this may seem to the uninitiated a saving to the Acting Assistant-Surgeons, but in reality it is either an insult to those acting, they not being considered worthy to don the war paint, or it is an attempt to save that paltry £30 which was given to previous Acting Surgeons during the war on their services being dispensed with.

The next order, I expect, will be that the Acting Assistant-Surgeons will not be required to mess with the officers, but may join the non-commissioned officers' table.

Now, Sir, I beg to draw attention to the Queen's Regulations for the Army:—"Regulations to be Observed by Detachments of Troops Embarked on Board Convict Ships," paragraph 4, it is laid down "that the Surgeon is to apprise the convicts of this order to the soldiers,"—an order having no earthly reference to a Surgeon's duties. Why should not the officer in charge apprise the convicts himself? I am, &c. M.D.

A CHEAP SPIROMETER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Like Dr. Garrett, I was attracted by the notice in your journal of a "cheap spirometer." It may save him and others some trouble if I give you the result of my correspondence with the York Glass Company in February last. They stated "that they made a glass apparatus, according to directions from Canada, and sent it to Messrs. Maw, Aldersgate-street." On writing to the latter firm, "they had no recollection of it." This statement they reiterated on receiving the date of the transaction from the York Glass Company. I have one from Messrs. Baker, of Holborn, price 63s. Mr. Coxeter has just told me "that a portable one is now made, which may be carried in the pocket." I am, &c.

Brighton, August 28. E. F. FUSSELL, M.B., M.R.C.P.L.

THE GRIFFIN TESTIMONIAL FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following subscriptions have been further received on behalf of the above fund:—

R. Bryden, Esq., Tiverton, 5s.; H. Stear, Esq., Saffron Walden, 10s.; F. F. Welsh, Esq., Saffron Walden, 10s.; G. D. Niven, Esq., Clifton, £2 2s.; E. Richardson, Esq., Whitechapel, 10s. Amount previously announced, £53 3s. 6d.; received at the *Lancet* office, £3 11s.

I am, &c.

ROBERT FOWLER, M.D., Treasurer and Hon. Sec.
145, Bishopsgate-street Without, August 31.

ARMY MEDICAL DEPARTMENT.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The existence of grievances in the Medical Department of the Army must have been apparent even to the authorities at the Horse Guards and War Office, because from that quarter certain alterations and improvements have already emanated.

Fines are no longer levied on Medical officers who pass objectionable recruits, and an infringement of the Warrant has been rectified by granting forage in accordance with relative rank, as in the case of combatant officers.

A few more concessions in this direction would go far to re-establish confidence in the head of our department, and revive the *entente cordiale* between us and the Horse Guards.

Let the branding of deserters be no longer performed under the supervision of the Medical officer, and let the pay of Assistant-Surgeons be increased if unpromoted after a certain time.

We unanimously endorse the Premier's definition of merit, and there is a general and settled persuasion that promotion to the administrative rank is the result of influence and solicitation.

Much dissatisfaction would be removed and good men would be retained were promotion regulated, as in Artillery and Engineers, in accordance

with the views of the present Director-General as expressed in his evidence before the Royal Commission.

Finally, retirement at the age of 55 should not be compulsory, but discretionary with the Director-General, or dependent on the efficiency of the party. I am, &c. A REGIMENTAL SURGEON.

GENERAL PRACTITIONERS UNDER FALSE PRETENCES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—It was not my intention to provoke controversy when I wrote to your journal three weeks ago, but the tone of the replies to my letter justifies my belief that bumptiousness, and not conscious deserts, has moved some at least to seek the degrees of the cheap universities.

Your correspondent, "Joannes, M.D. St. Andrews," is one who possesses bumptiousness, at least, whatever his deserts are. May I suggest to him (and others such) that whenever he affixes to his name the letters M.D., he should be careful to sign himself as M.D. St. Andrews, and not as M.D. only. Thus, he signifies by such signature that his degree is not of Edinburgh, much less of London, nor of any other bonâ fide university. In my time at Edinburgh no man of good reputation would have ventured on such a degree as St. Andrews': in these latter days of more highly-flown self-assumption only would a student have sought that now highly-coveted title. Of the motives of men in practice one must speak more tenderly. All sorts of reasons may influence men in practice to take degrees, but all these reasons are included in the wish to seem to be something more than they really are, to seem to be literate persons.

Let me assure "Joannes, of St. Andrews," one feels tender as to his own weakness to seem something more than his student status left him, and that many of us who remain in the humble position from which he has so meritoriously emerged will feel content, if on every occasion he (and such others) have of signing their M.D., they will affix the "Brummagem" stamp, and so will cease to mislead the lieges.

August 30. I am, &c. D. P. MORRIS.

THE EXAMINATION FOR THE DENTAL CERTIFICATE AT THE ROYAL COLLEGE OF SURGEONS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I should feel extremely obliged by your letting me know what the examination for the diploma of Dental Surgeon consists of, and who are the examiners. Also, what fees and certificates are required to obtain it.

Walsall, August 27. I am, &c. B.

*** "*Candidates for the Certificate of Qualification in Dental Surgery.*—1. Candidates are required to produce the following certificates:—1. Of being twenty-one years of age. 2. Of having been engaged during four years in the acquirement of Professional knowledge. 3. Of having attended, at a school or schools recognised by this College, not less than one of each of the following courses of lectures, delivered by lecturers recognised by this College, namely—Anatomy, Physiology, Surgery, Medicine, Chemistry, and Materia Medica. 4. Of having attended a second winter course of lectures on Anatomy, or a course of not less than twenty lectures on the Anatomy of the Head and Neck, delivered by lecturers recognised by this College. 5. Of having performed Dissections at a recognised school during not less than nine months. 6. Of having completed a course of Chemical Manipulation, under the superintendence of a teacher or lecturer recognised by this College. 7. Of having attended at a recognised Hospital or Hospitals in the United Kingdom the Practice of Surgery, and Clinical Lectures on Surgery, during two winter sessions. 8. Of having attended at a recognised school two courses of lectures upon each of the following subjects, viz.—Dental Anatomy and Physiology (Human and Comparative), Dental Surgery, Dental Mechanics, and one course of Lectures on Metallurgy, by lecturers recognised by this College. 9. Of having been engaged, during a period of not less than three years, in acquiring a practical familiarity with the details of Mechanical Dentistry, under the instruction of a competent Practitioner. 10. Of having attended at a recognised Dental Hospital, or in the dental department of a recognised general Hospital, the practice of Dental Surgery during two winter and two summer sessions. N.B.—The students of the London schools are required to register the above certificates at this College; and special returns will be required from the provincial schools. The fee for the certificate of fitness to practise as a Dentist is ten guineas, over and above any stamp duty. Members of the College will be examined only by the Section of the Board consisting of persons skilled in Dental Surgery. A candidate whose qualification shall be found insufficient will be referred back to his studies, and will not be admitted to re-examination within the period of six months, unless the Board shall otherwise determine."

THE TREATMENT OF DROWNING.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The value of electricity in cases of suspended animation from drowning has probably not yet been sufficiently tested, and I believe it still promises to be a most efficient auxiliary to the means usually employed for the recovery of people in that unfortunate situation.

The old galvanic apparatus was cumbersome, expensive, and unready, and has therefore been neglected; but these objections are obviated by the compact and portable electro-magnetic, electric, and galvanic machines which are now manufactured. These instruments are more or less suitable for the purpose, but I think an instrument might be constructed and arranged expressly for the treatment of suspended animation,—of small bulk and weight, limited intensity of shock; so that a non-Professional person may use it without danger to the patient, of moderate expense, and handy for use at the water side. I believe such an instrument would do good service in conjunction with the means now most approved in practice, and would come into exten ive use.

Too exclusive an importance has probably been given to the artificial introduction of air into the lungs in the treatment of these cases: its employment has long been considered quite indispensable; but of late years much less confidence in its efficacy has prevailed, and it is the opinion of many that the cases of recorded recovery in which air had been introduced mechanically into the lungs would have recovered without that proceeding.

Dr. Woolley, formerly Medical assistant to the Royal Humane Society, a man of great practical knowledge, has recorded that "the cases of drowned persons in which artificial respiration can be employed with advantage are very few indeed."

The great object in the treatment is not the supply of air, but a restoration of the functions of the oppressed and powerless vital organs, especially that of respiration, or to elicit the much-desired and welcome sob or gasp, which, if happily repeated at short intervals, will draw air into the lungs in a natural way, and will place the patient in a fair way of recovery.

Dr. Silvester's method of imitating natural breathing, published in the Humane Society's new rules last year, is in great repute. In my humble opinion, its benefit is due to keeping the pectoral muscles and diaphragm in continual motion rather than to drawing air into the lungs.

I am, &c.

Wisbech, August 1. RD. JEFFREYS.

GRADUATION AT ST. ANDREWS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I cannot think St. Andrews stands in real need of a plea from any of her Graduates; for I would respectfully ask gentlemen (not adventurers, who have but little to lose), of whom Mr. David P. Morris seems to be the type, whether of late years they would like to have gone up for the examination without considerable preparation. For my part, I confess I shall have been sorry if I had had only the practical knowledge and experience that are obtainable by seeing patients in private practice whereon to place my reliance when sitting down to answer the printed questions, or when subsequently holding interviews with Drs. Gairdner, Heddle, or Buchanan. I met with every courtesy; but I was expected to answer questions, especially in chemistry and Surgery, that such gentlemen only as those who can afford to sneer at the examination could have made themselves acquainted with except by the devotion of many an hour to previous study.

Now, Sir, as regards the legal use of the title of Doctor, I cannot see that a general Practitioner is exercising his vocation "under false pretences" by announcing himself as Dr. instead of Mr., if he does not disguise from his patients the fact that, for their interest as well as his own, he still deems it not beneath the dignity to see that the material weapons of his warfare are trustworthy—in other words, that his medicines, by their genuineness, are really and truly calculated to carry out the intent of his prescriptions, if he does not charge more than formerly for his attendance, and if he does not assume superiority over his brethren in virtue of his degree. I say if his conduct has undergone no change since his return from the North—and surely this remark will apply to a whole host of St. Andrews' men—in what way does he practise "under false pretences?" Clearly, I reply, in none. Then it will be asked, How is such a model Doctor rewarded for the trouble and expense of taking his degree? Well, he does reap the reward of his labour; but that reward or benefit is, I take it, proportioned to his own previous status, the class of his patients, and the locality where he resides. There is no denying the fact that a general practice at the West-end of London and one at the East may differ immensely in character, and Sir W. may be pleased with the idea that the family attendant to whom he is recommended is an M.D., while Mr. Jones may not care a straw for University distinctions. So our jealous brethren may so far take comfort and be assured that the prefix of Dr., or the signing the magic letters after the name, will not *per se* give their owner prestige; but if the distinction be fairly and legitimately obtained, after a good theoretical and practical examination as at St. Andrews it will, under favourable circumstances, conduce to that social advancement and its consequent benefits which every hardworking Practitioner is justified in seeking, although, as society is constituted, he may not be able to join the College of Physicians, or even renounce pharmacy and the odium which in "pure quarters," though not in the eyes of the public, is too mawkishly associated with it. I am, &c.,

August 30. W. F. CLEVELAND.

THE BERMUDAS.—THE CAMPAIGN OF DEATH.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The yellow fever has broken out in the Bermudas. This sad intelligence has just been received by the authorities in Nova Scotia, with a demand for Medical aid, and announcing the death of the principal Medical officer, Surgeon-Major Franklyn.

Of course, the Medical Department was numerically deficient at Bermuda when this epidemic broke out. It was also equally deficient in Nova Scotia, where reinforcements were sought. The desired aid was therefore requested from Canada, where, although the Department is below its proper strength, as it is every place else, the means of "making shift" were more accessible.

Surgeon-Majors, Surgeons, and Assistant-Surgeons were at once relieved from duty and summoned to the field. Wherever a civil Practitioner could be got for the money, he was employed to do the duties of the absent officers. Even Regimental Assistant-Surgeons had to be taken from their corps. Double duty was imposed on those left behind: any officer who was on temporary leave, or on the eve of going on leave, was recalled, or his leave cancelled; and thus a staff of eleven Doctors was mustered and despatched to the Field of Death.

This is one of those campaigns—bloodless, indeed, but fraught with death—in which the whole force of the fighting falls upon the active members of the Medical Department. In this war the so-called "non-combatant" officers bear the whole brunt of the battle. In this battle there is no desertion, no shirking, no turning from the hidden foe. Here are men stationed in a healthy place like Canada hurried into the middle of pestilence and death with a moment's notice. In this war there is no finger pointing to stars and garters, C.B.'s, rapid promotion, field allowances, or even brevet rank to cheer the soldier; here there are no generals, no staff to reap all the honour while the others win the day. The Surgeon-Major and the Assistant-Surgeon must here toil, alike surrounded by pestilence, disease, and death. Each and all labour together without the hope of reward or honour, excepting that reward which they gain from the satisfaction of feeling that they do their duty.

But Medical officers are not disposed to exaggerate either the value of their services or the dangers of the duties that devolve upon them. They knew full well when they chose the military service as the field of their labours that they must expose life and limb in the battle-field, toil in the frozen trench or under the tropical sun, and face the devastating cholera in the East and the fatal yellow fever in the West. But they did not know that their services would have been enviously underrated; that while they are exposed to the noxious influence of pestilential air or tropical climates the best stations at home should be filled by civilians, professedly unqualified, unable to undergo the necessary examinational test, untutored even by a single lecture at Netley, yet paid in all respects the same as the genuine article, although dubbed with the not very dignified nor euphonious appellation of Acting-Assistant Surgeons. They did not know that the very hire paid for their labour would be ungraciously grudged; that even the common indulgences, lavished profusely on their compeers and granted to them by Royal authority, should be niggardly withheld, and that by men who are not only bound to them under obligations of gratitude, but whose services to the State can no more be compared to those of the Medical Department than the scintil-

lating spark of the firefly can vie with the glorious blaze of the noon-day sun. They did not know that even the promotion earned in their own department should be so tardily and reluctantly granted, or that the higher grades of the Profession, attainable only by the favoured few, must depend on Horse Guards' influence, or that nefarious system of nepotism which ever has and ever must disgrace our public services.

Montreal, August 18. I am, &c. TRUTH.

HOSPITALS AND GENERAL PRACTITIONERS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Although the indiscriminate relief at general and special Hospitals and dispensaries is a fact well known, I cannot refrain from making a few remarks upon the subject, simply because the general Practitioner can hardly get bread for himself and family if he adheres to an honourable and professional course of action.

Enormous sums of money can be obtained in a few weeks to build Hospitals with halls like palaces, which astonish the beholder; but although the dying man intended his legacy for the benefit of the afflicted poor, it is incontrovertible that a rich man can obtain a consultation of Physicians or Surgeons at any or all our London Hospitals without being asked his name or where he lives.

The printed forms of letters of admission, etc., of our Hospitals and dispensaries state that the patient is deserving, or a fit applicant to receive the benefits of the charity. Is this statement ever questioned? If not, how many become patients who are in no way entitled to such benefits? Are the domestic servants of the nobility and aristocracy fit objects for these noble charities because their masters and mistresses are subscribers, and have they so many letters of admission only, according to the amount subscribed?

Again, so long as the principals of manufacturing and commercial firms have an unlimited supply of letters allowed them by the trustees of Hospitals for a few guineas subscribed, so long will they "generously" continue to place at the disposal of their clerks a pile of admission letters; those they employ, and their families, friends, and acquaintances, as well as others, will obtain them for the asking, and so long will the abuses of these charities be continued, and the time of the Assistant-Surgeons and Physicians be taken up by the thronging applicants, necessitating the unseemly and rapid diagnosis of the serious and urgent cases of the suffering and afflicted poor to enable the Physicians and Surgeons to see 150 or 200 cases in an hour or an hour and a-half and return home to see their private patients.

The quack statement in the penny papers is continued, about so many hundreds cured and so many thousands relieved, omitting any statement of the proportion of deaths, etc., which leads the public into the delusion that Physicians and Surgeons of Hospitals are the only men who know their Profession, and consequently to Hospitals and dispensaries the general public rush to be cured or to preserve their lives.

The law compels an aspirant for Medical honours to qualify himself legally to practise his Profession, and therefore the law should protect him in his honourable endeavours to do so; but the march of intellect is so vigorous, and the progress of enlightenment so vivid, that the unqualified man defies the law, prescribes and visits, advertises and parades his international mixture, delectable lozenges, and infallible remedies for popular diseases, and makes a fortune; whilst the qualified general Practitioner has to write certificates of death for persons previously prescribed for by the chemist or druggist, and "thinks, good, easy man, that all his buds are ripening," or that a good time is coming—but regrets the times are such that quackery, homœopathy, and humbug are the mottled and only wear of an enlightened public.

The London general Practitioners will have to apply for the situation of hall porters at these noble institutions, or turn Medical tradesmen, and sell patent medicine, horse balls, and grocery, unless they call a general meeting to bring about means to prevent indiscriminate "relief" at Hospitals and Dispensaries, knock down quackery, and put a stop to chemists and druggists and their shopmen prescribing for and visiting the sick.

What would a baker do if a rich man were to establish a shop three doors off, and put up a large board with—"The best bread may be had here by anybody for nothing?" Appeal to the law to protect him from ruin.

The trustees should attend monthly at their Hospitals and Dispensaries and ascertain the claims of the patients to the benefits of the respective charities; then the afflicted poor will not so often be sent away with the statement that all the beds in the Hospital are occupied—but thank God that such noble institutions exist for their relief in suffering, and the general Practitioner will be enabled honourably and Professionally to earn a living for himself and family as well as the Hospital Physician and Surgeon, the chemist, and the quack. I am, &c.

A GENERAL PRACTITIONER VICTIMISED.

GRADUATION AT THE FACULTY OF PHYSICIANS AND SURGEONS, GLASGOW.

We extract the following amusing sketch from a correspondent's letter:—

"When I arrived in Glasgow it was a frosty day, and I was much tired; but, however, I thought if I could get a friendly interview with the registrar it might make things smoother on the examination-day. I walked a mile by gaslight over slippery ground, and rang the bell of his house in a portico, with a gas lamp suspended from the ceiling. When he came he said in Scottish accent, 'Aweel, Mr. ——, an' din ye think God's day a proper time to talk on sacular business? there's planty a time atween this and Wadnesday.' Rather cold coffee this, after a night ride of 200 miles, I thought; so I said 'Good night, sir,' and he said 'Good night, it's varry slappery, mind ye dinna fall.' I thought exactly so. The next morning, as I was combing my hair with a span new pocket-comb, it fell from my hands, and the comb broke from the case. I now really wished I had gone to London; I had a presentiment of bad luck creeping over me.

"However, on Monday I saw the registrar at his office, and he told me besides my L.S.A. I must show certificates, at the least, of two distinct courses of Surgery: that I did; then he said I was to give him £10, and in a book write my name and a number of answers touching birth, age, where I studied, etc.; so took up the two £5 notes, and I said they are Bank of England; and he asked me if they were good: I said I hoped they would pay; he said, 'I suppose the Bank of England is better than any other money:' so I smiled. 'Well, ye'll be at Faculty Hall, St. Onoch-square, at 10 a.m. on Wednesday:' so I bowed.

"After my arrival I was shown into an enormous library, and a little old man brought me three questions on paper, and said I was to write brief answers to them; in about half an hour he came for them. In the interim one young gentleman came out, rejected, from the examining-room. I pitied him, so dejected, so prostrate he looked! I tried to cheer him, and told him it would be forgotten and pass away; he said 'Can a bird fly away from its tail?" (tale.)

Now, then, I was called for. After a few trifling questions came one question, 'What are the functions, and what the anatomical relations, of the lenticular ganglion?' Well, I thought, there's a question to a man that has been in practice thirty-four years! Next, 'What are the anatomical relations of the sterno-cleido-mastoid muscle, not the origin and insertion?' Well, I did my best. Then, 'What are the early signs of necrosis of the femur?' etc., etc.; and if the whole bone died except the apophyses, under proper treatment, what would be the result? I said, 'Nine times out of ten death from exhaustion.'

"I soon saw two of the fraternity were my enemies; and after an examination in obstetrics, my answer about the femur caused one of them peremptorily to order me to retire; but one of the Conciliarii said 'No.' 'I say yes,' says the other; but he was overruled, and the President said, 'It is with pleasure I have the honour to receive you as a Licentiate of this "Faculty;"' and that which asked me about the lenticular ganglion received an admonitory look from the Inspector and Treasurer, and one of the Conciliarii pulled his watch out and looked at it, and then at him.

"Then I had to wait three days for the diploma—a grand thing all in Latin, in old English type, different from German text. It was enclosed in a handsome japanned case, not unlike the truncheon which drops from the hand of Macbeth, when, in sorrow and abstraction, he says, I think, 'She should have lived longer or died sooner.'

"Yours truly, A SUBSCRIBER."

COMMUNICATIONS have been received from—

Mr. McWHINNIE; Mr. B. W. RICHARDSON; Mr. F. H. RICHARDSON; Mr. THOMAS TAYLOR; Messrs. HORNIMAN AND CO.; TRUTH; INQUIRER; Professor LAYCOCK; Dr. T. MILES; AN OLD SUBSCRIBER; Dr. J. A. MAGRATH; Dr. W. F. CLEVELAND; M.D.; Mr. D. P. MORRIS; Dr. E. HAMILTON; Dr. G. H. PHILIPSON; NAVY MEDICAL DEPARTMENT, SOMERSET HOUSE; Mr. LUTHER HOLDEN; Mr. JONATHAN HUTCHINSON; Mr. W. COPNEY; THE ROYAL COLLEGE OF SURGEONS OF ENGLAND; THE UNIVERSITY OF LONDON; THE UNIVERSITY OF EDINBURGH; GENERAL NURSING INSTITUTE; Dr. ROBERT FOWLER; Mr. THOMAS STOKES; Dr. G. B. BRODIE; Mr. J. L. FLETCHER; APOTHECARIES' HALL; Mr. HENRY BIRD; Dr. E. F. FUSSELL; Mr. J. BURTON; Mr. COLIN M. K. DICK; Dr. ARCHIBALD SMITH; INDIAN ARMY SURGEON; AN OLD SUBSCRIBER; Mr. WILLIAM TALLACK.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 27, 1864.

BIRTHS.

Births of Boys, 992; Girls, 923; Total, 1915.
Average of 10 corresponding weeks, 1854-63, 1676·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	706	707	1413
Average of the ten years 1854-63	620·1	615·2	1235·3
Average corrected to increased population..	..	..	1359
Deaths of people above 90	..	2	2

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa
West ..	463,388	1	2	17	1	7	11	33
North ..	618,210	1	8	5	5	7	17	30
Central ..	378,058	2	11	11	1	3	9	22
East ..	571,158	1	43	17	1	7	19	46
South ..	773,175	1	10	9	3	6	23	59
Total ..	2,803,989	6	74	59	11	30	79	190

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·910 in.
Mean temperature	52·2
Highest point of thermometer	68·4
Lowest point of thermometer	38·1
Mean dew-point temperature	43·6
General direction of wind	N.
Whole amount of rain in the week	0·65 in.

APPOINTMENTS FOR THE WEEK.

September 3. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

5. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

6. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

7. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

8. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

9. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

COURSE OF
LECTURES
ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D., F.R.C.P.,
Professor in University College, and Assistant-Physician to University College Hospital.

Lecture VI.

UROHÆMATIN, AND THE ABNORMAL PIGMENTS MET WITH IN WHITE, YELLOW, GREEN, BLUE, AND BLACK URINE—THEIR CLINICAL SIGNIFICANCE AND TREATMENT.

(Continued from page 218.)

Pathology.

The colour of the urine varies greatly in disease. It may be perfectly white, yellow, brown, red, black, green, or blue, and each of these tints, in the absence of ingesta capable of accidentally producing them, invariably indicates the existence of grave disease.

Normally coloured urine does not, however, exclude the possibility of disease, for the colour of the freshly passed urine is no absolute criterion either of the quantity or the kind of colouring matter it contains. The abnormal like the normal pigments are often combined with some of the other urinary ingredients in the form of colourless compounds, and it is not until the compound is decomposed, and the pigment set free, that we can take cognisance either of its quantity or its quality. For example, here are three urines:—1st. A pale, almost colourless urine from a healthy infant, aged 18 months. It has a specific gravity of 1018. 2nd. An equally pale, almost colourless urine from a girl, aged 19, suffering from chlorosis. It has also a specific gravity of 1018. 3rd. A dark straw-coloured, but perfectly transparent urine from a healthy man, aged 33. It has likewise a specific gravity of 1018. In fact, these three urines have been purposely selected on account of their having the same specific gravity. To each of these add a quarter of their bulk of strong nitric acid, and bring them to the boiling point. Watch the change. The infant's pale urine is scarcely altered; the man's dark urine is only slightly deepened in tint; whereas the almost colourless urine of the chlorotic girl has assumed an intensely red hue. What is the cause of this difference? The infant is in the bloom of health—there is no waste of blood corpuscles in it—all the blood discs it possesses are employed in the development of its frame. The man has arrived at maturity; he is still in the prime of life, and in the enjoyment of perfect health; his blood corpuscles are not wasted, but merely consumed in the tear and wear of every-day life. The young woman, on the other hand, is suffering from chlorosis; she has a pale lip, and a blanched cheek; her corpuscles are being too rapidly consumed; her life's blood is oozing away by the kidneys, and there it appears as an excess of urohæmatin in her urine.

Take again these two urines so different in appearance. They are from young men about the same age (24 years). The one urine is perfectly colourless, like water (b); the other is of a deep red colour,—case of hæmaturia from disease of the kidney. On adding strong hydrochloric acid to the colourless urine it rapidly assumes a port-wine tint, whereas the same amount of acid added to the red urine, instead of heightening, actually destroys the colour it already possesses. And why? simply because the pale urine contains an excess of combined urohæmatin, which is liberated by the acid; whereas, the red urine contains merely a number of free blood corpuscles, which become coagulated, and, as the colouring matter in them is insignificant in quantity when compared with the amount of urohæmatin in the other, no sooner are their cell-walls destroyed and the contained hæmato-globulin set free and coagulated, than the red colour disappears. Now, which of these two classes of urine denotes the most danger? Most assuredly, not that containing the free blood-cells. A very small quantity of blood will sometimes colour a great deal of urine; whereas an immense destruction of blood corpuscles may take place in the body, and their *débris* be so eliminated as to be invisible to the eye until the application of an acid sets it free. In fact, experience has shown me that the normally coloured urine of disease is a most treacherous guide to go by. It often lulls the inexperienced into the belief that there is nothing materially wrong, when a grave lesion is making rapid strides towards a fatal termination. Not very long ago I was told by an intelligent Practitioner that a young lady, regarding whose health we were consulting, was labouring under hysteria. "The secretions," as he termed them, being "all right," my opinion had been asked more with the view of satisfying the friends who were getting fidgety than anything else. The case certainly appeared to be exactly what he said, until in the course of conversation he added, "she is well fed, and yet she loses flesh, and I don't know why." This remark at once brought us back to the urine, which he assured me was perfectly natural in colour, and contained neither sugar nor albumen. I had some sent to me, and in the end, the case turned out to be the very counterpart of the lad's just spoken of. Although the girl's urine was natural in colour, her life's blood was imperceptibly oozing away with it. This is not a solitary example; I might cite several more to prove that many of the cases called hysteria are in reality cases of serious, though obscure, disease; but that is surely unnecessary, for who amongst us has not seen patients die, and yet their disease put down as, only hysteria? The time is, nevertheless, not far distant when we shall learn that hysteria is something more than "mere functional derangement." Hysteria may be a convenient term; but, after all, it is only a cloak of ample dimensions which hides the rags of ignorance. It is a name instead of an explanation, a sham instead of a reality. And what is still worse is, that it tends to keep us in ignorance by stifling legitimate inquiry; for no sooner do the majority of us find a name for the disease than we cease to fathom its symptoms. In some of those cases of obscure disease the excess of urohæmatin in the urine is so great that after it has been set free by an acid and taken up with ether; the ether, after standing, solidifies into a red-currant jelly like mass, and may actually, in some cases, be cut with a knife.

The best way of showing this is to boil four ounces of urine along with some nitric acid in order to set all the colouring matter free. When cool, put the urine into a six-ounce bottle along with an ounce of ether. Cork the bottle, thoroughly shake it, and afterwards place it aside for twenty-four hours. At the end of that time the ounce of ether will sometimes be found to be a red tremulous jelly. Of course such a case is a very bad one; but these are, nevertheless, not nearly so uncommon as one who has not worked at the subject would imagine. The urine in the worst form is neutral or even alkaline.

Sometimes in disease a great part of the urohæmatin exists in the urine in a free state; and in that case the urine is red in colour before any acid is added, although the addition of the acid makes it still darker. These cases are quite different from hæmaturia; for in them the urine is clear and transparent, and devoid of blood corpuscles. If it contains a deposit, the deposit may or may not be high coloured; but in any case the supernatant liquid is clear as well as red. Another fact, which is of great clinical importance, is that the urohæmatin is not always in the same state of oxidation; and, like indigo, its colour depends on the amount of oxygen it contains. So that it may be pale yellow at one time, red at another, and brown at a third. In consequence of this, different acids act upon the urine differently. In one case we may find that the addition of nitric, sulphuric, or hydrochloric acid gives rise to exactly the same results; whereas in another case hydrochloric acid may turn the urine red, while nitric acid only causes it to become yellow. In a third case sulphuric acid may develope the colour of the urohæmatin better than either of the others. Here is the pale urine of a case of chlorosis, and you will observe that both hydrochloric and sulphuric acids turn it red; yet nitric acid merely changes it to a yellow.

[August 3, 1864.—To-day, while arranging these sheets for the press, I examined a urine which so well illustrates the truth of the foregoing remarks that I cannot refrain from briefly noticing it. It is that of a gentleman 33 years of age. To the eye it appears perfectly normal in colour (of a dark straw tint), the specific gravity being 1030, and the quantity passed about thirty ounces. On adding strong nitric acid

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—Ed. *Med. Times and Gaz.*

(b) The patient from whom this urine came was sent into the Hospital (under the care of one of my colleagues) from his being supposed to have stone. None, however, was detected, and his symptoms appeared to arise from excessive spinal irritation. At the time the above sample of urine was passed the lad had already been six weeks in the Hospital.

to this urine it immediately became of a blood-red hue, whereas hydrochloric acid had no effect upon it until some minutes had elapsed, when it gradually caused it to assume the same tint as that produced by the nitric acid. When sulphuric acid is slowly added so as to fall to the bottom of the test-tube, a reddish-brown line appears at the point of contact, and this gradually deepens until, in the course of six hours or so, it assumes a more intense colour than that produced by either of the other acids.

This is an important case in another point of view—namely, as proving the value of urinary analysis in cases of obscure disease. The only symptoms that this patient labours under are those of an irregular kind of dyspepsia, with an occasional pain in the epigastrium. He is in easy circumstances, takes plenty of nourishing food, wants for nothing, yet he gradually gets weaker and weaker, and has lost 17 lbs. in the course of the last year. Even the locality in which the patient lives is a remarkably healthy one (he was sent to me from Anglesey by Dr. D. Williams, of the Menai Bridge), and if it had not been for the condition of the urine, his symptoms would have remained a mystery. This, too, was one of those cases in which the amount of urohæmatin was so great that it caused the etherial solution to solidify into a jelly.]

An excessive excretion of urohæmatin is not limited to cases such as we have been describing. It occurs to some extent in several diseases, especially those in which there is an excessive tissue metamorphosis, and consequent too rapid blood consumption. Hence we occasionally meet with it in low fevers, in diphtheria, in pneumonia, and some other inflammatory affections, in lesions of the nervous system, during an attack of gout, after the fit of ague, and during convalescence from nearly all grave diseases. It is, however, in chlorosis (either in the male or female), and the many unnameable obscure affections of that class where it becomes a dangerous symptom. In fact, it always indicates the existence of a past or present mischief meriting the closest attention of the Physician, and where we cannot remove the cause we must at least attempt to check the effects of the symptom—namely, to restore to the blood as much as possible of the material which is being drained from it. Every one knows the effects of iron upon the system, but iron alone is not always sufficient for our purpose. Something more is wanted, and that is best supplied by the preparations called the syrups of phosphate of iron. Many syrups have been sold under this title. There are the American syrups; the compound syrup of the phosphate of iron, or "chemical food," as it is sometimes named; the syrup of the superphosphate of iron and lime (excellent for children); and a few others. One and all of them are good in particular cases, but they must always be associated with a judicious selection of regimen in order that the full benefit may be derived from them.

The preparation of zinc, in grain or grain and a-half doses, are also occasionally useful astringent tonics when the drain is very great.

In some cases of disease the excretion of urohæmatin by the kidneys appears to be diminished; but this is only when the system has been so drained that there is little more to come away. In the last stage of chlorosis a great diminution in the amount of the urohæmatin in the urine takes place; so also in chronic cases of hæmaturia, notwithstanding that the urine perhaps looks red. Likewise in cases of chylous urine, in the albuminuria of pregnancy, and in chronic Bright's disease. In all these cases the blood has already been well drained of its constituents before a marked diminution in the amount of the eliminated urohæmatin takes place.

Blue and Green Urine.—A great sensation was created some years ago among Clinical Physicians and Pathologists when the first cases of blue and green urine were reported; all doubted, and many disbelieved in their existence. The least uncharitable thought that the patient had hoaxed the Doctor. Knowledge has, however, advanced since then. Not one, but many observers have met with the same conditions; and now the doubters and disbelievers in the existence of either blue or green urine are only to be found among the ignorant.

To Dr. Hassall we owe the first good report on the existence of blue urine. It was entitled—"On the Frequent Occurrence of Indigo in Human Urine, and on its Chemical, Physiological, and Pathological Relations.(c)

I must here guard you against falling into the common error of supposing that the urine is blue or green at the moment of being voided, for, as far as I am aware, such a condition has never yet been observed. In the cases hitherto reported it has only been after exposure to the air, or after the application of chemical agents, that the urine has been observed to become of the colours alluded to. In Hassall's best-marked case, for example, the urine was of a light brown colour when voided, somewhat alkaline, and had a specific gravity of 1017. In the course of three or four days it became thick and turbid, deep brown, greenish, bluish green, yellowish green, and finally nearly black; the scum on the surface remaining of a permanent, deep indigo-blue colour. All these changes followed upon simple exposure to the air; but, as just said, chemical agents may produce one or more of these changes. Thus, for example, in Munk's case of green urine, (d) when passed the urine was of a dark red colour, but on the addition of ammonia it became green. Like everything else when properly understood, these changes have nothing mysterious about them. The body has not created anything new in making blue or green urine. Indeed, as in disease no new functions are ever created, but only a change occurs in the rhythm and force of those already existing, so in disease no new substances are ever created, but only a change takes place in the quantity or in the quality of those normally existing. It is now twelve years since I adopted these views, and the longer and deeper I peer into the wondrous workings of the human frame, the more am I satisfied with them, and the easier do I find the comprehension of disease. Physiology and Pathology are but one study; and although a man may be a Physiologist without being a Physician, no man can be a Physician without being a Physiologist. The same laws that regulate health regulate disease. The very effects we are now studying are a striking illustration of the justice of these observations.

For example, the discovery of indigo in urine was thought to be very extraordinary,—a vegetable product manufactured in an animal body! The thing appeared absurd; and, as I before said, the least uncharitable thought the patient had hoaxed the Doctor. The further science advances, however, the nearer do we see the animal and vegetable kingdoms approaching each other, and the less surprised are we at finding that the products of the one are but modifications of the products of the other. Fat can be got from plants as well as from animals; sugar can be got from animals as well as from plants. We have albumen in the plant, as we have albumen in the hen's egg; we have casein in the milk of the cow, and we have casein also in the plant. The Chinese know these things apparently even better than we do. When they have no milk and want cheese, they make it from common peas by boiling them along with lime. The cheese called Tao-fo is the product of the garden, not of the stall. So, again, with colouring matters; each animal colouring matter has its counterpart in the vegetable world. The green colouring matter of the bile is the analogue of the chlorophyll of the leaf. The red colouring matter of the blood is similar to the blood red of the rose. Blue urohæmatin is the counterpart of indigo from the plant. The analogy does not only hold good in colour; for, as is well known to chemists, there is also a great resemblance in the composition of the different animal and vegetable pigments, as regards the amount of H, O, N, and C they contain. Moreover, in 1852-53 I traced a still further similarity in the composition of biliverdin and chlorophyll, hæmatin and draconin, urohæmatin and indigo, by finding that they all possessed the common character of containing iron. And what is still more, I believe the day is not far distant when the chemist will copy the Chinaman with his Tao-fo, and resolve those vegetable and animal pigments into one another by adding or subtracting a small quantity of oxygen.

It is well known to everybody that indigo is originally not a blue, but a white substance, and it is only in the process of manufacture that it changes its colour from white to yellow, yellow to green, and green to blue; and there is even another grade of oxidation in which the blue indigo is transformed to red. Now, as with this vegetable pigment, so it is with the animal pigments; they are nothing more than grades of oxidation of a white radical, as I first hinted in the papers on urohæmatin, already spoken of. If we adopt this view, we can readily understand how easy it is for the red hæmatin of the blood to be changed into the green biliverdin of the bile.

All known pathological data support this view, whilst all the known physiological data can prove nothing to the contrary.

(c) *Philosophical Transactions*, p. 297, 1864.

(d) *Allg. Med. Central Ztg.*, No. 26.

Hitherto I have only spoken of blue and green urine; but there are such things also as blue and green pus(e)—nay, more, both Chevreul and Lecanu have during disease(f) met with blue colouring matters in the blood itself.

This is not the place to discuss the subject, or I could soon bring a mass of evidence in support of the theory that all animal colouring matters originally spring from one colourless radical. Indeed, so clear does the thing appear to my own mind that I no longer regard it in the light of a theory, but as a fact. A few minutes ago it was said that the transition stage, from white to green and from green to blue indigo, was yellow. Well, even this has its counterpart in the animal body. Sigwart, Sanson, Lecanu, and Chevreul have all described a yellow colouring matter which they found in the blood; and who can doubt its existence, for every day we have ample evidence of the fact of red hæmatin being changed into yellow pigment in the cases of jaundice that are constantly being brought before us.

It is unnecessary even to go so far as that to prove the proposition; for let us take the case of the urine itself, which is alone sufficient to prove it. In case I might be regarded in the light of a one-sided advocate, I shall now quote the observations of other authors, and in order to make the ground more secure, shall select a German, French, and English reporter.

In Munk's case, already referred to, the observations were made upon a man aged 39, while in Hospital, under the care of Professor Traube. The patient stated that he had enjoyed good health until about two years before his admission, when he began to suffer from pains in the loins and trembling of the lower limbs. These increased, and he became so weak that he had to give up work. The urine was found (1) to be of a dark red colour; (2) to contain neither albumen nor bile-pigment; (3) to stain filter-paper red; (4) to become darker when heated with nitric acid; (5) to assume with sulphuric acid a fine deep violet colour; (6) to become decolourised when hydrochloric acid and zinc were added to it; the red colour could, however, be restored by adding nitric acid; (7), and lastly, with ammonia, the urine became green. The quantity passed in twenty-four hours was much below the average; it varied from about fourteen to twenty-three ounces. A very small amount of chlorides and urea was found in the urine.

Munk separated the colouring matter from the urine in a pure state, and found that it was insoluble in water, but soluble in alcohol, ether, and chloroform. It dissolved in soda solution with a pale red colour; in ammonia, with a green; in hydrochloric acid, with a red; in sulphuric acid, with a dark violet hue; and in nitric acid, it became colourless. When burned, it left an ash containing iron.

In Braconnot's case, cited by Robin and Verdeil, vol. iii., p. 491 of their "Chimie Anatomique," the urine was of an obscure yellow colour, and, after standing, the sediment which was deposited from it became of an azure blue. When separated, this blue substance gave to hot water a brown tint, which became of a fine red ("beau rouge") on the addition of strong acids. Moreover, the hot alcoholic solution, which was of a green colour, yielded a blue precipitate on becoming cold.

If further evidence be wanting to prove that the various coloured urine pigments are but different grades of oxidation of urohæmatin, we have it in Hassall's case. At page 298 of the paper already cited it is stated that "The first urine of the series, when passed, was somewhat alkaline to test-paper, had a specific gravity of 1017, and was of a light-brown colour; there formed on its surface, in the course of three or four days, a thick, greasy-looking, soft scum, consisting of vibriones, and very many large and fine crystals of triple phosphate; at about this time the scum became greyish-blue, lavender, bright blue, and finally, after three or four days more, of a deep indigo-blue colour, which was permanent."

Thus is explained the various colours and reactions of the urine that have been recorded by Gilchirst, Heller, Vogel, Schunck, Carter, and a number of others, who have, within the last few years, so enriched the literature of the subject. All these changes which occur in urohæmatin out of the body, as the effects of reagents or simple exposure to the air, are primarily due to its constitution having been altered in the body by the effects of disease. I have seen in diphtheria, in low fever, in phthisis, and in many other exhausting diseases where the vital powers were much reduced, and the arterialisation of the blood interfered with, hydrochloric acid throw down blue crystals of uric acid. Although there is sufficient blue urohæmatin ("uroindigo") to colour the uric acid crystals, there is often in these cases not sufficient to render the entire urine blue. Occasionally uric acid is deposited of a purple colour. In all such cases it will be found that whatever supports the vital powers tends to diminish the amount of uroindigo in the urine.

I must here warn beginners against falling into the error of mistaking the colours of the urine produced by remedies for those arising from disease. Thus santonine, picrotoxine, gamboge, rhubarb, and senna all cause the urine to become yellow; while turpentine turns it violet, and arsenuretted hydrogen and creosote make it black. So that one must always begin by asking what remedies the patient has been taking.

Most coloured remedies produce no effect on the colour of the urine.

Brown and Black Urine.—There are two entirely different diseased states in which brown and black urine are met with. In the one, the urine at the moment of being passed is of a deep straw colour, and perfectly transparent; but becomes gradually darker and darker in tint (without, however, losing its transparency) until it is as black as porter. In the other, the urine varies from a chocolate brown to a brownish-black hue at the moment of being passed. It is not usually transparent, and deposits a quantity of flocculent sediment, which, when examined with the microscope, is seen to be made up of brown or reddish-brown granular pigment, a few blood discs, and frequently a quantity of renal tube casts, together with crystals of uric acid, etc. In this last class of cases the dark colour of the urine is not due to an excessive metamorphosis of blood cells, and consequent increased elimination of abnormal urohæmatin, but to a local disorganisation of blood corpuscles, either in the kidney alone, or in the liver and kidney combined; but as the consideration of this condition more properly belongs to the chapter on hæmaturia, we must leave it for the present, and merely direct attention to that peculiar condition of the urine which is supposed to result from the presence of melanin.

In 1858, Dr. Eiselt, of Prague, called attention to the fact that in certain cases of disease the urine, although quite clear when passed, gradually becomes of a dark colour, in consequence of a process of slow oxidation going on. He further showed that by the employment of an active oxidising agent, such as nitric or chromic acid, the freshly-passed urine could be instantly made to assume a black hue. Moreover, he observed that in the three cases of this kind which fell under his observation, the patients all laboured under melanotic cancer, and I have myself added another to the list.(g). The presence, therefore, of melanin in the urine in obscure cases may occasionally help us to a correct diagnosis. It is, however, necessary to remark that a somewhat similar state of the urine, as here described, is occasionally met with in other examples of disease, besides that of melanotic cancer. Great care, therefore, must be taken not to confound them; for although black urine invariably indicates the existence of serious mischief, all the cases in which it occurs, either after the addition of reagents or of simple exposure to the air, are not necessarily hopeless; for just as we may have a green or a blue urohæmatin, so we may have a brown or a black one. There is nothing incomprehensible in this when we consider that melanin, like the other animal pigments, is a derivative of the colouring matter of the blood, and like it contains iron.

While working in Robin and Verdeil's laboratory in 1852, I prepared a quantity of pure melanin (h) from a melanotic cancer, and compared it with the brown pigments normally existing in the body—among others, with that of the choroid coat of the eye—and I satisfied myself that the normal and pathological, when perfectly pure, are not distinguishable from each other, either by their appearance or properties.

Hence one can readily understand why we should occasionally think we have got melanin in the urine in cases where no melanotic cancer exists. In the article on jaundice already referred to, a case is related of the kind which fell under my notice in 1850. The patient was a woman, aged 22, suffering from an attack of jaundice; the urine was slightly albuminous, and became black on being boiled with nitric acid. As she perfectly recovered in the space of six weeks, it is not at all probable that she laboured under malignant disease. Since

(e) I have met with one case, and several others have been published. See "Robin and Verdeil," vol. iii., p. 492.

(f) *Ibid*, p. 572.

(g) "On Jaundice and Diseases of the Liver and Pancreas," p. 68.

(h) "Chemie Anatomique," vol. iii., page 394.

then, three other cases of suspicious urine of this kind have fallen under my notice, and in all of them the urine was, as in the above, albuminous.

Although, then, it is no doubt quite possible to have albumen in the urine in a case of melanotic cancer, yet, as albumen is an almost invariable concomitant of the brown and black urine of other disease, while it is only exceptionally present in that of malignant affections, we may perhaps, as I shall afterwards show, be able to make use of its presence as a distinguishing sign, especially if it be in accordance with the history and other symptoms of the patient.

ORIGINAL COMMUNICATIONS.

SEA SICKNESS: ITS NATURE AND TREATMENT.

By JOHN CHAPMAN, M.D., M.R.C.P.

(Continued from page 249.)

Treatment.—The inevitable conclusion from all the facts and arguments of the preceding exposition is that the only scientific and really effective remedy for sea sickness must be one which has the power of lessening the amount of blood in the whole of the nervous centres along the back. This, as I have proved, can be effectually done by lowering the temperature of the spinal region by the application of ice. A formidable-looking remedy, I admit; but when it is judged of by the aid of experience it ceases to terrify, and, on the contrary, is found decidedly agreeable. Ice applied in bladders or by any of the ordinary methods would undoubtedly occasion great discomfort, would constrain the movements of the patient, compelling him to remain for the most part in one position, and, in fact, could not be so applied as to ensure success. It is necessary, *first*, that the ice be kept in contact with each region of the spine, the upper portion of the ice being prevented from falling down as the melting proceeds; *secondly*, that the application do not extend far on each side of the spinal cord, otherwise the patient will become cold; *thirdly*, that, having regard to the comfort of the patient, the mouth of the bag containing the ice be so effectually closed as to prevent the water from escaping as the ice melts; *fourthly*, that the mouth of the bag be as wide as the bag itself, in order that the bag may be easily and rapidly filled, and that, without any inconvenience to the patient, facility should be afforded for giving escape to the air which accumulates in each compartment of the bag as the ice melts.

After long consideration and many experiments I have succeeded in perfecting a bag which fulfils all the above requirements. It is made of india-rubber, and consists of several compartments — generally three. These compartments are separated from each other either by intervening brass clamps applied externally, or by internal india-rubber septa of different lengths. In all cases the mouth of the bag is closed by a clamp one side of which is so thin as when turned next the back to cause no inconvenience to the wearer of the bag, while the action of the clamp itself helps to keep the bag in its requisite oval shape. Loops are affixed to the outer side of the bag, by which it is sustained and secured in its place.

When about to apply the bag having internal septa I put ice (broken into pieces about the size of a small walnut) in the opening on the side nearest the loops until the contents of the lowest cell reach up to the bottom of the second cell. I then put ice in the middle opening until it reaches up to the bottom of the third cell, and, finally, having filled the top cell, close the bag with the clamp. *It is of the utmost importance that the bag be filled only in this manner;* otherwise there might in the middle third part of it be two, and in the upper third three, layers of india-rubber between the ice and the patient's back. I take care that each cell is not so filled as to cause it to become round, otherwise only a small portion of the bag will touch the back. A further precaution is necessary. As ice contains a considerable amount of air, this air, as the ice melts, accumulates at the top of the bag, and being a bad conductor of heat, prevents the still unmelted ice which it surrounds from exerting its intended influence. I, therefore, unscrew the clamp occasionally, and thus let the air escape; and if the bag is to be worn for a considerable time, replace the air by a little fresh ice.

In order to keep the bag in its position most securely, and at the same time to allow the patient to remain upright or to walk about, I pass an elastic band through the upper loops of the bag and then round the head. The bag is thus held close to the back of the neck. I then pass a long tape through the lower loop, carrying each half of this tape over the shoulders, crossing one over the other in the front of the chest, carrying them backwards round the waist in order to clasp the bag closely into the small of the back, and finally bring them forward, tying them in front. The bag will thus be sustained chiefly by the shoulders instead of by the head. This method of securing the bag is, however, not essential; it may be sustained in the case of men by buttoning the waistcoat and coat tightly over it; and in the case of women, by tightening their dress over it in like manner. Of course, when stays are worn, it is necessary to loosen them sufficiently to allow the bag to pass down between them and the back. But I know no way of keeping the upper segment of the bag in close apposition with the back of the neck equal to that by means of the elastic band used as described.(a)

Until ice shall be habitually kept on board passenger-vessels, persons liable to sickness must of course continue to suffer, unless they provide ice for themselves; to do so, except for short passages, would be difficult; but for passages of a few hours only each passenger may easily supply himself with the requisite amount of ice. Each bagful when applied to the back melts in about two hours, faster or slower, of course, according to the temperature of the weather. For the passage between Dover and Calais one bagful suffices; one will also suffice between Folkstone and Boulogne, unless in cases of peculiar severity. Between Newhaven and Dieppe three bagfuls are required; between Dover and Ostend two. As the Channel steamers do not yet carry ice, passengers who intend to use it between Dover and Calais or between Folkstone and Boulogne will save themselves trouble by having a bag properly filled in London, and then packed in a mat or carpet bag, or any other convenient vehicle, surrounded by an abundance of sawdust or several folds of a thick woollen rug or other woollen material. Shawls, flannel vests, or petticoats, and woollen coats, with which the traveller's carpet-bag may happen to be provided, will answer the purpose quite as well, and, if so used, the only addition to the luggage is the ice-bag with its contents. Thus packed a short time before the train starts from London, it may be conveyed to Dover or Folkstone ready for immediate use, the ice having melted very slightly meanwhile. For passages of several hours, unless two or three ice-bags were taken on board, prepared and packed as above, it is necessary to take a supply of ice packed in plenty of sawdust by the ice merchant, and an ice-breaker, by which it may be reduced to fragments as wanted. From two to three pounds of ice for every two hours the passage lasts would be the quantity required by an adult.

In the great majority of cases the treatment of sea-sickness need consist in nothing more than keeping along the centre of the back an ice-bag, constructed, prepared, and sustained as described, and extending throughout the cervical, dorsal, and lumbar regions, or from the top of the neck to the lower part of the hollow of the back. So long as the liability to sickness continues, cold must be applied as directed. The results of fifteen experiments made, chiefly under my direction, in the treatment of sea sickness in this manner induce me to believe that, as a general rule liable to few exceptions, the effect of this simple expedient will be the annihilation of all unpleasant symptoms: the sickness will stop; if diarrhœa is present, it will be subdued; if the patient is only threatened with it, the attack will be averted; if there be headache, with coldness of the forehead, the pain will vanish; the cold clammy sweat will cease to be exuded; the cold skin will resume its wonted warmth; the muscular system will regain its usual strength; the mind its energy and pleasurable interest in surrounding objects; and the sickly pallid features their expressive energy and healthy hue.

Persons differ, however, so greatly from each other in respect to their liability to sea-sickness, in respect to the parts of the nervous system most easily affected, and in respect to the facility with which the circulation may be influenced by cold applied along the back, that many cases of sea sickness in persons otherwise accounted healthy will demand special study and special treatment. Moreover, in cases of constitutional or

(a) The bags, as described in the text, have been patented in England and on the Continent, and may be obtained of C. Macintosh and Co., the manufacturers, 3, Cannon-street West, London; S. Maw and Son, 11, Aldersgate-street, London; John G. Gould, 198, Oxford-street, London; Thos. Chapman, 56, Buchanan-street, Glasgow; and also, by order, of all druggists.

local diseases, or even of mere functional disorder, additional knowledge of the physiological action of cold, when applied to the back on the various parts of the body, and additional care and precautions in prescribing it, will be essentially necessary.

Persons whose liability to sea-sickness is not extreme will, I believe, generally find that the malady may be wholly prevented by applying ice, as directed, as soon as they find themselves becoming ill. In such cases the degree of cold requisite for stopping the sickness will most frequently be obtained if the bag be placed outside the shirt or chemise, and in some cases even outside the flannel vest, when such garment is worn. I have satisfied myself, however, that *in all cases it is much the best to let the ice-bag come in direct contact with the skin.* The part seemingly most sensitive, and that corresponding physiologically to the stomach and bowels, extends from the lower angles of the shoulder-blades to the lower part of the hollow of the back. It is, therefore, of paramount importance that the lower segments of the ice-bag extend completely over this region and be pressed in close contact with it. If there be headache, and if the forehead be at the same time cold, the upper part of the bag must also be kept in close contact with the back of the neck. If, however, in exceptional cases, while the head aches, the forehead should be hot and the face flushed, the cold applied to the upper region of the spine must either be lessened or wholly withdrawn. It will be found in some cases most desirable merely to modify its intensity by placing a pocket handkerchief (a silk one is best), folded to the requisite degree of thickness, between the bag and the upper part of the spine. The handkerchief must extend along the whole cervical and the upper third of the dorsal vertebræ, or from the nape of the neck downwards to between the shoulders. Experience will teach those who use ice along the back that there seems almost as if there were a wonderful intelligence in the nervous centres of the whole spinal region, which denotes by quickly expressive and unmistakeable feeling the exact parts where the application of ice is most desirable, and where it should be omitted. I recommend all who use it to attend to these intimations as trustworthy oracles.

Patients of præternatural sensibility in the spinal region, or who are unusually liable to sea sickness, ought not only to apply the ice bag direct to the skin, but also for a considerable time—say an hour at least—before they go on board ship. When the patient is leaving an inland town for the coast with the intention of proceeding direct from the railway carriage on board the vessel, it will be best to apply ice while still in the railway carriage. In many such cases this preliminary application need be made to the lumbar and the lower part of the dorsal region only; but in all such, until the person goes on board, or rather till the movement of the vessel begins, I would urge that the feelings should be consulted, as to whether the ice should be extended along the upper part of the back or not. In these cases of præternatural sensibility, while the patient is on board the ship, should there be any motion and should the tendency to sickness have not completely subsided, it will be necessary that the ice be kept to the back without the intermission of even a few minutes, so speedily does the excess of blood recur in the nervous centres while the motion of the ship continues. In order to insure the unintermitted application of ice such sensitive patients ought to be provided with two bags, so that one can be replenished with ice and ready for immediate application before the other is removed.

Medical advisers of persons with tender lungs will have to urge upon them the need of taking special precautions in using ice in the manner here indicated. For reasons which I shall shortly mention they will often be able while on board a ship in motion to bear with impunity ice along the dorsal region, although, if on land, they might not be able to do so. Therefore, unless in very urgent cases, it would be well for them not to apply cold to the dorsal region until on board the ship in actual motion, and then that, if they should experience any unpleasant sensation whatever in the chest, they should restrict the application of the ice to the cervical and lumbar regions only. It will be necessary also to proceed cautiously in applying cold to the lumbar region of pregnant women, and of women during the period of menstruation. I have had as yet no experience in the treatment of such cases of sea sickness, but as I have demonstrated that ice to the lumbar region will both induce and increase the menstrual flow, and as, from *à priori* considerations, I believe it probable that ice so applied in the case of pregnant women will facilitate abortion, it is expedient, until experience has afforded positive knowledge in this matter, to proceed with great caution; to attend to the sensations of the patient sedulously; and, if the ice be applied to the lumbar region, to remove it immediately any unpleasant feelings are experienced. The same reason, however, which will allow persons with tender lungs to use ice with greater impunity on board ship than they could do on land, will also allow the two last classes of patients to do the same, and hence I anticipate that with the exercise of a due amount of prudence, aided by adequate physiological knowledge, all three classes of patients may, without injury, save themselves from sea sickness by the remedy in question.

In concluding these remarks on the treatment of sea-sickness, I may as well anticipate and answer the objections which have arisen, and which will no doubt long continue to arise in the minds of persons unacquainted either physiologically or experimentally with the remedy in question, not only to its long-continued use, but even to its use at all. Many persons shudder at the idea of having a column of ice placed along the back, and think were it continued there for a moderately short time that the discomfort would be extreme, and more injurious results by its continued use would speedily follow. In answer to the objection, that ice to the back in order to arrest or prevent sea-sickness must be so disagreeable as to make the remedy deserving to be characterised as worse than the disease, I shall simply appeal to the experience of patients. In the first place, such is the universally confessed misery of severe sea-sickness that it is difficult to conceive of any remedy being worse than the disease; but as the application of ice restores to a normal condition those nervous centres on which the healthy circulation and functions of the whole organism depend, it is reasonable to presume *à priori* that the process of this restoration must be agreeable, and, as a matter of fact, it certainly is so. The ship's motions having induced an abnormal amount of blood in both the spinal and ganglionic centres there is necessarily a greater evolution of heat there than is usual during health; and hence it is that cold along the whole spinal region is not only tolerable but positively pleasant. Indeed, patients not only find the cold pleasant, but crave that it should be more intense, and their feelings of the comparative agreeableness of the cold in different parts of the back are a very valuable guide to those particular points where, from constitutional peculiarities, the abnormal afflux of blood in the nervous centres is the greatest, and which, therefore, they instinctively desire should be rendered coldest.

It would, undoubtedly, be a great blessing to all persons travelling by sea, and who suffer from sea-sickness, to become possessed of some magical remedy which they might take once for all, and which would permanently charm away their sufferings. But, by an inexorable logic of nature, results unfortunately are continuously produced so long as their causes continue to operate. The ultimate cause of sea-sickness is the unstable sea, and as that cause is likely, with intervals of calm, to be everlasting, so will its results—sea-sickness—continue in each patient until his organisation has adapted itself to live on a moving surface; or unless that result is averted by a remedy as continuously active as the cause itself.

This subversion of those physiological conditions on which the derangement of the viscera constituting sea-sickness depends, can only be effected by a remedy, the operation of which can be continued as long as those conditions continue to be induced. Sufferers will have to choose between the continuance of their sufferings during uncertain lengths of time, and the slight trouble and inconvenience of wearing an ice-bag along the back, and of having it replenished each time the ice melts. I affirm confidently, however, that when they have once made their election in favour of the ice-bag, they will have no doubts afterwards as to the wisdom of their choice.

The objection to the remedy which possibly, but not probably, may prove really formidable is that, in cases of long continued sea sickness, the long continued use of ice may prove physically intolerable, as it may induce physiological or pathological conditions in the body of the wearer of a character more injurious and troublesome than sea sickness itself. I do not, however, expect this result. If ice were worn for many days consecutively by a person on land, it might be productive of grave consequences, the more so, of course, if the wearers were suffering from some constitutional malady which involved an abnormal diminution rather thau afflux of blood in the nervous centres along the back. In respect to a person at sea, however, in a vessel moving sufficiently to make him

sick, the case is widely different. An undue afflux of blood in the nervous centres along his back is produced by a cause continuously operative, and, therefore, ice applied along his spine does not reduce the amount of blood in those centres below the normal standard, but only prevents it from increasing beyond that standard, and so long as it only does this it can only do good. This being the case, I venture to predict that ice may be applied to the backs of otherwise healthy persons suffering from sea sickness, so long as they would continue to be sick if it were not thus applied; and that, for the same reason, ice to the dorsal region of persons with tender lungs, and to the lumbar region of pregnant and menstruating women, may also be applied with impunity, seeing that the unusual amount of blood brought into the different regions of the nervous system, just mentioned by the continuous motion of the vessel, operates as a shield against that special influence of the ice, which, in their case, might prove injurious were they on land.

OBSERVATIONS OF A DIRECT MITRAL OR TRICUSPID MURMUR.

By E. L. ORMEROD, M.D., F.R.C.P.,
Physician to the Sussex County Hospital.

In compliance with Dr. Gairdner's request, expressed in his note on the auricular systolic murmur (*Medical Times and Gazette*, August 20, 1864, p. 193), I have extracted from my case-books the following observations of a diastolic murmur at the apex of the heart. They are such as an analytical index of cases extending over five years allows me to turn to at once. The observations are copied almost verbatim from the notes taken at the bed-side. Probably they represent a greater frequency of this diastolic murmur than would be found in the cases of after years, for only three of which I have anything like a minute analytical index; for they were collected while I was working at auscultation during my Cambridge vacations, with unlimited leisure, and with the freest access to the wards of St. Bartholomew's Hospital. One case has been added, of recent occurrence, still fresh in the memory of my class at the Sussex County Hospital, as giving occasion for the frequent discussion of Dr. Gairdner's views.

I leave these recorded observations as they stand, each to bear its own interpretation, with only the general remark, that from these and such as these I have come to the conclusion that the murmur about which Dr. Gairdner and I differ is a regurgitant mitral murmur, the direct mitral being such in time and character as I have reported it here.

I believe this diastolic murmur at apex, this direct mitral or tricuspid murmur, to be the crucial test of the correctness of the explanation of the murmur which has called forth these remarks. I may be quite wrong in the explanation which I have preferred, but if ever refutation of a mistake could be pleasantly conveyed it could come in no more acceptable form than the kindly, courteous remarks of Dr. Gairdner.

1.—*Old Disease of the Heart.*

H. C. 16.; F., 18.—Jan. 5, 1844.—Loud chirping systolic murmur, intensely loud at apex, fading away towards the base; prolonged blowing murmur with first sound at base, also soft prolonged blowing diastolic murmur continued down over the cardiac region; both of these continued into the aorta. 6th.—All the previous auscultation confirmed, with the addition that there is a diastolic murmur at the apex.

2.—*Old Disease of the Heart.*

H. C. 29; F. 22.—June 28, 1844.—Loud systolic murmur at apex, fading away towards the base. To the right of the left nipple this murmur is musical; to the left it is blowing. Corresponding to the extent of the musical systolic murmur is a faint diastolic murmur; at base a systolic blowing murmur, prolonged more distinctly along the aorta than along the pulmonary artery. July 4.—The previous auscultation confirmed; only, the diastolic murmur at apex is less audible; and is there not a diastolic murmur also at the base?

3.—*Old Disease of the Heart.*

H. C. 30; F., 14.—Systolic murmur at apex, harsh and blowing; softer at base, and prolonged as such into the aorta and pulmonary artery. Diastolic murmur at apex, to be followed thence up the front of the heart for a short way; highest to the left of the nipple.

4.—*Old Disease of the Heart.*

H. C. 36; F., 39.—June, 1842.—Harsh systolic murmur at apex, followed up to the base, but not at all beyond; no murmur whatever in the aorta or pulmonary artery; within the same limits as this harsh systolic murmur a softer murmur accompanies the second sound of the heart.

5.—*Palpitation of the Heart.*

H. C. 41. F., 30.—October 31, 1845.—Systolic murmur at base, not notably prolonged in any direction. Double murmur at apex followed up to the left of the mamma. These murmurs are thus proportioned:—First, a long loud systolic murmur, equal in duration, say to 3; secondly, the short second sound of the heart transmitted from the base, say equal to 1. Then a long diastolic murmur, equal to 2,—thus, —3, 1, 2. December 17.—Systolic murmur continues at apex, but the heart's sounds here are so confused that it is impossible to say whether or no there be a murmur with the diastole.

6.—*Acute Rheumatism.*

H. C. 44. F., 23.—June 12, 1845.—At the apex, and more plainly a little to the left of it, the systole is accompanied by a loud blowing murmur; this is followed by a shorter sound, and this again by a blowing murmur. The length of these sounds might be expressed respectively as 3, 1, 2. At the sternal end of the third left costal cartilage the diastolic murmur ceases to be audible; but the systolic murmur becomes more distinct here. To the sternal end of the second right costal cartilage this systolic murmur is accompanied by a crackling sound; beyond this point, in the innominata and carotids, only a simple blowing murmur is audible. July 2, 1847.—Auscultation at apex the same in all respects. A loud, rough systolic murmur at base, extending into aorta.

7.—*Old Disease of the Heart.*

H. C. 45. M., 17.—July 16, 1846.—Loud double murmur at base—the systolic part the loudest,—fading away towards apex. At the apex, extending up to the left of the nipple, there is a very loud diastolic murmur, contrasting with the systolic murmur to the right of the nipple. Rumbling murmur in pulmonary artery; rough in carotids.

8.—*Old Disease of the Heart.*

H. C. 47; F., 29.—October 4, 1846.—Loud, harsh, systolic, with softer diastolic murmur at apex. Loud, harsh, systolic murmur at base extending into aorta.

9.—*Old Disease of the Heart.*

H. C. 49; M., 25.—July 30, 1842.—Loud systolic murmur at apex, confused about the fourth intercostal space, but clear again opposite the third rib, and followed thence across the sternum; murmur with the second sound loud at apex, confused about the fourth intercostal space, but again faintly audible at base; second sound almost absent at base; no morbid sound audible in the carotids.

10.—*Old Disease of the Heart.*

H. C. 60; M., 42.—September 12, 1845.—Loud, confused, systolic murmur at apex, clearer towards the right; here it is accompanied by a loud, harsh, diastolic murmur followed up the sternum to the base; loud, harsh, systolic murmur in the great vessels.

11.—*Old Disease of the Heart.*

H. C. 65; F., 41.—October 6, 1846.—Double murmur at base, audible in the aorta and down the right side of the sternum; double murmur also at apex; at the point of impingement the diastolic part is loudest; about an inch to the right of the nipple the systolic element prevails. October 5, 1848.—Died; rigid contraction of the tricuspid and mitral valves; contracted aortic valves, with permanent patency of the aortic orifice.

12.—*Cachexia—Pleuro-pneumonia.*

P. C., 24. F., 63.—February, 1845.—Diastolic murmur near apex; no murmur anywhere else. Died. Dilatation and softening of the left ventricle; an old adherent coagulum attached to the walls, presenting a distinct edge to the auriculo-ventricular opening; valves healthy.

13.—*Aneurism of the Abdominal Aorta.*

H. E., 1. F., 39.—September 12, 1843.—Double murmur at base, the diastolic being the longest and most blowing; double murmur also at apex, the systolic part following the confused first sound; the diastolic part rough, and almost cooing at times. Died. Valves generally small, opaque in spots, but only the aortic valves distinctly contracted.

14.—*Acute Rheumatism.*

S. C. H., 8, p. 341. M., 15.—January 28, 1864.—At the apex there is a distinctly double sound—two blowing mur-

murs; blowing, not frictional. A short, somewhat rough sound immediately precedes the radial pulse, almost terminating with the first sound of the heart with a distinct snap: this is the first murmur. Then comes a short, sharp sound, not a blowing murmur, but probably the second sound transmitted to this point as a faint tick. Then there is a prolonged, soft murmur, most audible just over the left nipple, which is quite lost at the base of the heart: this is the second murmur. January 30.—Over the left nipple there is a distinct, soft, blowing murmur immediately following the second sound of the heart as transmitted from the base. This is lost on ascending to the base, where nothing more than a systolic murmur and a clacking second sound are audible. February 17.—First sound prolonged at base into a soft blowing murmur; elsewhere the sounds are clearer than before; only at apex the first sound seems reduplicated. This is now the only representative of the anomalous sounds previously noticed at this point. May 27.—Loud, rasping, systolic murmur at apex, ending abruptly with a snap; no notice of a diastolic murmur.

Brighton.

ACUPUNCTURE IN FACIAL NEURALGIA.

By WILLIAM CRAIG, L.F.P.S.

I PUBLISHED a treatise in 1859 entitled, "On the Influence of Variations of Electric Tension as the Remote Cause of Epidemic and other Diseases." An effort is there made to establish the identity of nervous and electric fluid. The treatment I adopt in facial neuralgia forcibly illustrates the truth of this position.

I have long believed that the essential cause of facial neuralgia is a superabundance of nervous fluid in the nerve affected, and that the proximate cause, in the great majority of cases, is a congestion of the nerve, bearing some analogy to capillary congestion in inflammation. I came to the conclusion that the treatment for the one form of disease should bear some analogy to that employed for the other; that as depletion is requisite in capillary congestion, so depletion ought to be beneficial in nervous congestion. I considered that, as nervous power and electricity are identical, when a conductor is presented or brought nearly into contact with a nerve, the overcharge ought to escape, and with it the pain, just as a charged Leyden-jar is discharged by a conductor brought near it. Full of this idea, when on my way to a case of facial neuralgia about twelve years ago, I considered it a good opportunity to test my principles. The patient had been suffering from a severe throbbing pain shooting in the direction of the branches of the supra-orbital nerve. He had slept very little for some nights previously. I thereupon procured sewing needles, and inserted two or three of them near the place where the nerve issues above the eye. The pain went away immediately, and the patient was asleep shortly after. The pain has not since returned (August 28, 1863).

Since the above period I have treated a very large number of cases of this affection by the same means, and with the same success. I have taken notes of a few of them only, as there is little variety in the character or development of this affection, and none in the treatment.

Case 1, May 6, 1852.—J. R., aged 42, states that he has been subject to attacks of severe pain over and under the right eye for several years. The attacks generally continued for a month or six weeks in spring. He has now been ill for eight days, during which the pain has continued with very little intermission, and he has obtained scarcely any sleep. I applied the conductors above and below the eye, and the relief was immediate. He fell asleep in ten minutes afterwards. He told me he could not express the agony experienced at the onset of a paroxysm. In June, 1860, the pain had not returned.

Case 2, September 4, 1856.—Miss A. has been for four years subject to attacks of neuralgia during each winter. Each attack continued about six weeks. She now complains of a severe pain of a burning and shooting character over the right eye and right cheek. "She has been obliged to go up and down stairs all night, unable to find a resting-place." She has had various internal remedies without effect. The conductors were inserted, and the pain left immediately. June, 1864.—It has not returned up to the present time.

Case 3, June 28, 1857.—Miss Mc J. complains of a severe darting pain on the right side of the back of the neck and head. She has been suffering from it for a fortnight. The pain extends from a point two inches behind the ear to the crown of the head, at the situation whence issues the occipitalis major nerve. She has had no sleep for some nights. The conductors were inserted, and the pain went off immediately. June, 1864.—Miss Mc J. states that she has not been troubled with pain since.

Case 4, March 12, 1858.—W. H. has during each winter for the last ten years been affected with neuralgia of the left side of the face of such severity as to prevent him from working. He has tried very many medicines and has had the nerves above and below the eye divided, the cicatrices being quite distinct. He has found no benefit from these means. When first seen his head was enveloped in several layers of flannel, and he was surrounded with awnings to prevent the slightest current of cold air from reaching him, as this immediately induced an intense paroxysm. It was with great difficulty that the treatment could be adopted, on account of the extreme sensitiveness of the skin of the face, but as soon as the needles were applied he was partially relieved. March 13.—He is considerably better, but very weak. He gradually got stronger, and was soon at his work again. May 23, 1860.—He has remained quite well for the last two years, and has been exposed to all kinds of weather.

It must be admitted that every case of facial neuralgia which I have met has not been cured by this means. But this admits of easy explanation; for in diseases of the nerves, as in those of other structures of the animal economy, there is sometimes inflammatory action and change of structure, producing neuralgic pain, in which case little benefit can be expected from acupuncture. In a case in which the mental nerve had been the seat of neuralgia, which had continued for ten years, the treatment by conduction was nearly fruitless. For twelve hours after the first insertion of the needles, the pain had completely gone, but afterwards it returned as before. In Case 4, however, which was very much of this character, the cure was complete. Cases which have little or no intermission, and which have existed for years, seem to be amenable to no form of treatment; at the end of so long a time there may be a change of nervous structure. It is necessary to allow the needles to remain applied for ten or twelve hours. In a case from the country about a month ago, the patient required to leave town in three hours; in two days the pain returned, but on the reinsertion of the conductors it was removed. After twelve hours he left, and did not return. It seems to be necessary not only to draw off the quantity of nervous fluid which produces the paroxysm, but also to take off for a time its normal supply, in order to break off the tendency to a return of the paroxysm. That this is the case may be concluded from the fact that sometimes the textures for a small space around the situation occupied by the conductors are benumbed, as if the cutaneous nerves had been for the time deprived of their proper supply of nervous fluid. It has been found that electricity passes from the free ends of the needles during acupuncture. Dr. Dantu states that a patient, immediately on the insertion of a needle, felt a gentle electric spark affect the tissues in the vicinity of the needles. M. Schwerger has observed the same phenomenon attend his operation as electricity was made appreciable by the deflection of the electric multiplicator. These electric phenomena, though not sought after to support preconceived opinions, but related as mere matters of fact, are exactly what might be expected from the principles here advocated. According to this fact—viz., that electricity escapes from the needle in acupuncture, thereby relieving the nervous congestion which causes tic—the induction of an electric current into a nerve subject to neuralgia would be followed by an aggravation of the pain. This happened in cases reported by Dr. Althaus (*Medical Times and Gazette*, August, 1858). He states that Duchenne recommended to cause a strong revulsion by producing Faradisation with the metallic brushes, conveying a very powerful electro-magnetic current through the part affected. But the pain by this proceeding was, according to Duchenne himself, "so atrocious," that after applying it to several cases he was obliged to desist. This result of the experiments of Duchenne is exactly what might have been expected from the principle here advocated. The atrocious pain was just the consequence of sending into the already congested nerve a stream of the same element, an over-supply of which was agonising the patient. Electricity in the form of current has been frequently applied in neuralgic affection, but, so far as I know, with no favourable result. These French observers state that the electric phenomenon immediately consequent on the insertion of the needles is the result of the

oxidation of the metal; but the effect is so instantaneous, the relief so speedy, that oxidation could not have begun before the cure was completed: the result is too great and too speedily effected to be accomplished by such a trifling amount of action, or, more correctly, no action at all.

For a considerable time after their insertion there is no impression of oxidation on that portion of the needle which is imbedded in the tissues, and long before that time the patient is cured.

It is no exaggeration that by this treatment the cure is immediate, as any one may satisfy himself by inserting a conductor of proper size in the proper place during a paroxysm in a pure case of facial neuralgia.

Illustrations of the method of applying the needles are given in the re-issue of Mr. Craig's work just published.

Ayr.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

CASE OF FRACTURED RIBS AND STERNUM IN WHICH THE INTERCOSTAL MUSCLES WERE EXTENSIVELY LACERATED.

(Under the care of Mr. HUTCHINSON.)

[Reported by Mr. WAREN TAY.]

THOMAS S., 51, carman, admitted July 29, 10·30 a.m. About an hour and a-half before, he had been driving a waggon under a beam of timber (part of a sort of bridge), and did not see that there was not height for him to go safely. The result was that he was knocked from his seat backwards on to the waggon, and his body was squeezed between the beam of wood and the back of the driver's seat. When admitted he was quite sensible; his friends said that he had lost a great deal of blood from his right ear just after the accident. There was no bleeding after he came in, but there was the mark of dried blood extending right down to the bottom of the meatus. He had fractured ribs on both sides, and considerable emphysema. Skin cool, breathing abdominal. The sternum was broken in the middle, and protruded so much when he sat up that it formed a large projecting angle; his tongue and lips were livid; pulse fluttering, feeble, and at least 120. He vomited some yellowish fluid as soon as they got him to bed. He died at 1·30 p.m. same day.

Post-mortem Nineteen Hours after Death.—Rigor mortis well marked; a big muscular man; forehead much mottled, as if from severe contusions; considerable emphysema on right side of chest and abdomen. There was a transverse fracture of the sternum, extending a little obliquely downwards to the left side at the part where the third ribs articulate—both these ribs were separated at their articulation; on the left side the fourth, fifth, and sixth costal cartilages were fractured about one inch and a-half from their articulation to the rib. In the right pleura was a considerable quantity of air, and the lung had contracted to half its bulk. The third, fourth, fifth, sixth, and seventh ribs on the right side were fractured close to the sternum, and the pleura and intercostal muscles were extensively lacerated; between the fourth and fifth ribs a laceration of the pleura and of both intercostal muscles extended from the articulation of the ribs behind almost to the position of the nipple in front. The fingers could be passed through the laceration into the subcutaneous cellular tissue, and by drawing up the rib above, the tear gaped widely. The left pleural sac contained blood to the extent of perhaps a pint, quite fluid and dark; the third, fourth, fifth, sixth, and seventh ribs were fractured on this side near to the spine. The right lung at its posterior part showed a small puncture into which the end of one's finger could be passed; the left lung did not appear to be wounded. The intercostal muscles on the left side were also lacerated, but not nearly so extensively as on the right. The heart was contracted and quite empty; there was blood in the cellular tissue of the mediastinum.

Mr. Hutchinson remarked that the chief feature of peculiarity in this case was the great extent of laceration of the intercostal muscles. He had often seen them torn in cases of injury to the chest, but he had never before seen a laceration involving almost the entire length of an intercostal space. It was easy to see how this had been caused. The poor fellow's body had been jammed under the beam; the lower part of his thorax would be crushed first, and then the sternum fractured by pressure on its lower part; next the beam would catch the upper ribs one by one and force them violently upwards whilst the body was being dragged onwards with the vehicle.

BIRMINGHAM GENERAL HOSPITAL.

CASE OF PRIMARY CANCER AT THE ROOT OF THE LEFT LUNG, SIMULATING ANEURISM.

(Under the care of Dr. JAS. RUSSELL.)

THE following case is of interest as presenting an illustration of primary cancer of the lung, commencing, as I believe is usual with that form of cancer, in the tissues around the root, and extending, by continuity of the fibro areolar tissue, over the exterior of the lung, and more tardily into its substance.

A second point of interest consists in the resemblance of the symptoms to those of intra-thoracic aneurism. Cancer and aneurism are the most common form of intra-thoracic tumour. Malignant tumours are those which are most likely to be mistaken for aneurism of the large vessels, since they may add to the ordinary symptoms of pressure, common to aneurisms with all other tumours, those physical signs which appertain more exclusively to aneurism—namely, pulsation and bellows sound.

The form of malignant disease which is most likely to create such a difficulty in diagnosis would be that which is observed in the present case, wherein the cancer forms a limited tumour on the outside of the lung, without, on the one hand, having invaded extensively the pulmonary substance, or, on the other, having spread widely into the pleural cavity.

This will be especially the case in the so-called primary cancer of the lung (a form, I believe, discarded by Dr. Wilks), in which the cancer begins in the root of the lung, as opposed to the disseminated cancer of the pleura and to secondary cancer, wherein the matter is infiltrated through the tissue of the lung, often in isolated nodules.

In the case which follows, the resemblance to aneurism was greatest in the early period, when I almost accepted the diagnosis of an aneurism: it lessened afterwards, as the deposit contracted the lung and tended to withdraw its surface from the ribs; but throughout the case I could only venture on a suspicion that the case was not one of aneurism. It is interesting to observe how closely the situation and progress of the disease were indicated by the general and physical symptoms during life. The pleurisy which attacked the patient a month after her admission was probably due to interference with the nervous supply to the lungs through pressure on the pulmonary plexus; it preceded the development of obvious constriction of the trachea, and, to a less extent, of the œsophagus also.

M. A. T., aged 30, servant.

Post-mortem Examination.—When the chest had been opened, the left lung was seen to be considerably retracted, entirely uncovering the heart; the right lung had advanced behind the sternum, and projected nearly an inch to the left of that bone. The left lung was universally and most closely adherent to every part and organ contiguous to it. A considerable amount of white cancerous matter surrounded the root of the left lung, and had drawn the left auricle into very close connection with it. It passed upwards in a layer of considerable thickness over the inner surface of the lung, and covered the apex, forming a cap of upwards of half an inch in thickness, which had, by its contraction, considerably compressed and condensed the tissue of the lung; from the apex the cancerous matter proceeded to cover, by a lamina of gradually diminishing thickness, a large part of the upper lobe. In taking the course described, the cancerous tumour adhered closely to the pericardium, surrounded and greatly compressed the left bronchus and the left pulmonary veins, the bronchus especially being nearly closed; it was simply attached to the aorta and innominata; the left carotid was surrounded by a thin layer, but the left subclavian was involved in the tumour. The left brachio-cephalic vein passed over the front of the tumour, and must have suffered slight pressure. Posteriorly, the tumour lay along the thoracic aorta and upon the trachea. It here also came in contact with the œsophagus. The connection of the tumour with the vagus in the lower part of its course could not be traced, but it was so situated as very probably to interfere with that nerve. The substance of the lung was greatly condensed, apparently by compression only, partly

by the cancer, and in great part by dense false membrane, as its tissue presented a normal character. The cancerous matter was gradually entering the substance of the lung along its large tubes; especially towards the apex it was identifying itself with the pulmonary tissue. The bronchial glands were infiltrated with cancerous matter. The cancerous matter consisted entirely of spherical and ovoid nuclei, the former from $\frac{1}{1250}$ inch in diameter downwards, the latter $\frac{1}{830}$ inch in their largest diameter. This juice was contained in fine fibro-areolar tissue. The right lung was perfectly healthy, excepting that it was dilated to compensate for the diminished size of the other lung. Every other organ in the body, the whole glandular system, the larynx, the mucous membrane of the stomach were perfectly healthy.

History.—She was admitted on May 6. Her illness commenced six months previously. The leading symptoms were severe pain in the epigastric region after food, sometimes attended by vomiting; violent cough, with expectoration of frothy mucus, which in the course of a month was intermixed with blood; short breath and palpitation after exertion. The patient then became subject to severe pain between her shoulders and in the left lateral region of the chest, extending down the inside of the upper arm and the posterior side of the forearm, especially aggravated by coughing or by any exertion. Hæmoptysis returned, the cough became more troublesome, and during the week preceding her admission the epigastric pain was at times so severe as to cause her to faint. She had been compelled to leave her place, but again returned, and worked with difficulty up to the period of her admission.

When she first presented herself her condition was as follows:—Good nutrition; some distension of the left external jugular; the pulsation of the right carotid was visible, whilst that of the left could not be seen; the expansion of the left side of the chest in breathing was very limited. Pulsation was visible to the eye in the left first intercostal space, by the hand it was felt very diffused between the first and third rib, and to within half an inch of the left edge of the sternum. Incomplete dulness existed on the left side between the clavicle and the second rib, each inclusive, and from the clavicle a dull strip half an inch wide ran parallel to the left edge of the sternum, as low as the third rib. In all other parts the chest preserved normal resonance. A rough systolic bellows sound was heard over the upper part of the chest, varying as to the point of chief intensity between the right and left subclavian space; it was also heard to the right of the second dorsal spine. The respiratory sounds were loud and very coarse over the right side, and this character of sound extended behind the sternum three-quarters of an inch to its left side. On the left side of the chest, in front, the respiratory murmur was hardly audible; posteriorly, where corresponding to the lower lobe of the lung, it was more distinct, but was more feeble than on the right side to a very marked degree. The pupils were quite natural, and continued so throughout the case.

The general symptoms were occasional stridulous cough, the voice being normal, and the movements of the arytenoid cartilages, as seen in the laryngoscope, natural;—the two kinds of pain mentioned in her history, the one in the left scapular and lateral space and in the arm, the other in the epigastric region, especially produced by the presence of food in her stomach, and accompanied with almost constant nausea, and sometimes with retching or vomiting; frequent inability to take food, on account of the suffering its presence induced; tranquil respiration and circulation.

In a fortnight after her admission it was observed for the first time that the left pulse was smaller than the right, and this symptom remained during the subsequent period of the case; also that the pulsation in the upper part of the chest had much diminished in intensity; the bellows sound, too, had become faint, the second sound of the heart, however, presenting a degree of roughness, soon converted into a short bruit.

A week afterwards the patient was attacked with pleurisy on the diseased side; the left side of the chest was universally dull, and the heart was displaced. Inspiration, when hurried, was now accompanied with some laryngeal stridor, and nutrition became invaded.

The dyspnœa and stridor increased, and laryngeal cough was superadded, the voice, however, remaining natural. In the space of a month all her symptoms had much increased in severity; but a permanent obstacle had now manifested itself to the entrance of air through the trachea, the effect of which was aggravated by frequent spasm of the glottis; and in addition the patient complained that she felt difficulty in swallowing her food, which seemed to lodge in the upper part of her chest. Her face was bathed in perspiration.

The physical signs, so far as examination could be endured, remained the same as when the pleurisy first announced itself. Her death was occasioned immediately by dyspnœa.

In reviewing this case the principal signs which might be supposed to militate against the opinion that an aneurism was present were,—1st. The diffused character of the pulsation, which did not culminate in any particular spot. 2ndly. A certain inconsistency in the symptoms. On the aneurismal hypothesis the situation of the dulness and of the pulsation pointed to the anterior part of the arch of the aorta on its left side as the probable seat of the disease; yet, on the one hand, the laryngeal fibres of the vagus were little affected until a late period, and on the other the left bronchus was compressed; the trunk of the vagus, below the origin of the recurrent nerve, was probably involved, producing the gastric distress, and also the pulmonary plexus, giving rise to the pleurisy. Later in the case the trachea and œsophagus were evidently subjected to pressure. 3rdly, The marked change in the physical signs, especially in the pulsation, and (what, however, is of less importance) in the intensity of the bellows sound. It may also be added that the much greater deficiency of respiratory sound in the upper than in the lower lobe of the left lung was not satisfactorily explained by the presence of an aneurismal tumour.

The last remark, however, referring to the alteration which took place in the physical signs of the disease as suggestive of other than an aneurismal tumour, requires to be made with caution, since even most marked physical signs of aneurism have entirely subsided, or undergone great change, without any cessation of the aneurismal disease. Dr. Stokes comments on this circumstance in more than one place; he gives ("Heart and Aorta," p. 577) a very remarkable illustration in the instance of an abdominal aneurism occasioned, probably, by a new chamber being formed for the blood at the expense of the bodies of the vertebræ.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.

LEAD PALSY CAUSED BY THE USE OF A COSMETIC.

(Under the care of Dr. WARD COUSINS.)

M. M., aged 20 years, the daughter of a tradesman, consulted me last November "for great weakness in her wrists." Her illness commenced fifteen months before that date with loss of appetite, constipation, and vomiting, followed by emaciation and general debility. She was then sallow and cachectic looking. Her appetite was very poor, and she complained of an unpleasant taste in her mouth, but there was no blue line on her gums. Her ankles were œdematous, and the legs covered posteriorly by many livid spots and superficial ulcerations. Her hands and arms presented all the characteristic symptoms of lead palsy—the wrists were dropped, and the power of extending the fingers almost lost, while the muscles composing the thenal and hypothenal eminences were remarkably atrophied.

From the history and symptoms I suspected that my patient had been poisoned in some unusual way by lead, and as her appearance indicated that she freely used some face-powder, I suspected that this was the channel by which the mineral had entered the system. After a little inquiry all doubt was soon removed. She told that she was in the habit of applying "pearl powder" to her skin; at the same time I learnt from a druggist in the neighbourhood "that he had supplied, for many months, both my patient and her sisters with carbonate of lead, which he believed was used as a cosmetic."

The treatment consisted in the administration of the iodides of potassium and iron with small doses of strychnia and cod-liver oil, and also local remedies to restore the nutrition and power of the faulty muscles—viz., daily friction, constant exercise, and Faradisation. The wrists were also supported by the elastic apparatus recommended by Dr. Charles Taylor, of Walton Lodge, near Liverpool.

June 1, 1864.—For some weeks my patient appeared to improve considerably, but when I last saw her, a few days since, the treatment had been neglected, and the disease is now unfortunately worse than ever. When the arms are extended, her hands hang helplessly down by their own weight, and the muscles of the forearm are wasted and shrunken.

Remarks.—No doubt that the whole train of symptoms in

this case was the result of poisoning by the lead, which was slowly introduced into the system through the skin. At the onset the usual intestinal disturbance was well marked, followed by emaciation, but the cause of the disease was not suspected until the characteristic paralysis became manifest. It is an interesting fact that the sisters of my patient escaped, although they used the same face powder,—fortunately for them they were in better health, and less susceptible of the poison; yet there can be no doubt, if the practice had been continued for a longer time, symptoms of the disease would likewise have appeared in them. The treatment proved unsuccessful in this case, and even under the most favourable circumstances, it is my experience that very little can be done for this form of local paralysis after twelve or eighteen months, for the affected muscles become shrunken and their tissue destroyed. There are numerous instances in which lead or its preparations, by contact with the skin, have been known to produce the usual results of lead poisoning; but I believe this is the only case of paralysis on record caused solely by the use of cosmetic.

A LARGE ABSCESS IN THE ABDOMINAL WALLS, COMMUNICATING WITH THE INTESTINE—RECOVERY.

(Under the care of Dr. WARD COUSINS.)

M. G., aged 48, a married woman, came under my care in September, 1863; she had then been ill fourteen months. At the onset a firm, hard swelling made its appearance, "like a boil," between the navel and the crest of the ilium. It was attended with great pain over the hip, and gradually increased in size. During the month of April it was lanced by my colleague, Mr. Knight, and a great quantity of fetid pus was discharged. Subsequently other tumours formed in the lower part of the abdomen, and opened spontaneously.

When the patient was first examined by me, there were eight fistulous openings in the lower half of the abdomen. The discharge of pus was profuse, mixed with thin feculent looking matter, and offensive gas was also constantly escaping. The general health was greatly reduced, countenance haggard and anxious, and emaciation and exhaustion extreme. Pulse very small and feeble, and bowels generally costive. The treatment consisted in chalybeates and cod-liver oil, with the occasional use of a gentle aperient.

July 1, 1864.—The patient has made a slow but steady recovery, and is now able to carry on her domestic duties. She has gained at least two stone in weight; her appetite is good, and she is free from pain. The induration and tenderness over the lower part of the abdomen have greatly diminished; four only of the sinuses remain open to the left of the umbilicus, and the discharge of pus is very scanty, on the average about two or three drachms daily.

Remarks.—On reviewing the case, it appears probable that the disease commenced with suppuration in the parietes. The inflammation of the intestine was secondary. From the position of the tumour, it seems likely that the transverse colon was the portion of the intestinal canal involved in the mischief. By local peritonitis and subsequent perforation, a communication was formed between that viscus and the cavity of the abscess; hence the profuse and feculent discharge and the large quantity of gas which escaped by the external fistulæ. Abscesses of the abdominal walls present great variety arising from difference in position and visceral complications, but in all the great principle of local treatment appears to be early incision, which will do much to prevent burrowing among the abdominal muscles, and the still graver injury arising from extension of the disease to the internal organs.

THE ANTHROPOMORPHOUS APES. — M. Gratiolet, in giving an account to the Academy of Sciences of his dissection of a new species of chimpanzee which he terms *Troglodytes Aubryi*, especially dwells upon the anatomy of the forearm and hand, as enabling him to "affirm with a conviction founded upon a personal and attentive study of all the known facts, that anatomy furnishes no basis for the idea so violently defended in our day of a near relationship between man and the ape. In vain are certain ancient crania, found by chance, and evidently monstrous, like that of the Neanderthal, invoked. Similar forms are found here and there, and belong to idiots. One of these, found some years ago by Dr. Binder, I have placed in the Museum, and in future it will count among the elements of that great discussion on the nature of man which now agitates philosophers and disturbs consciences, but whence one day the divine majesty of man will issue, consecrated by the combat, and henceforth inviolable and triumphant."

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Medical Times and Gazette.

SATURDAY, SEPTEMBER 10.

HOSPITALS AND THEIR STAFFS.

AT a late General Court of the Governors of St. Thomas's Hospital one of them brought several serious charges against the management of that charity, and he commenced his complaints by "noticing the very great disproportion of the Medical and Surgical staff to the number of patients, as compared with other Hospitals;" but he would not enlarge upon this particular grievance, he said, because the present number of beds was only a temporary arrangement. It is undeniable that the present Professional staff of St. Thomas's, with only 200 beds, is the same as it was when the Hospital had 500, and also that the reduction in the number of beds is only temporary, so that those governors who may think the staff at present outrageously large, can quiet their consciences with the belief that ere very long the number of beds will be, most likely, at least trebled. But, in the mean time, it may be worth while to consider whether the present staff is really too large; whether it is not a fact that the Medical staff of our Hospitals is in general much too small for the work to be done, rather than that that of St. Thomas's is too large?

What is the average number of beds under the charge of each Physician or Surgeon in the London Hospitals? This question is not very easily answered, we fear. At the Westminster Hospital there are 3 Physicians, 1 Physician-Accoucheur, and 3 Surgeons to 200 beds,—if we divide the beds equally amongst the staff, we get an average of about 30 beds each. At the Middlesex Hospital there are 3 Physicians, 1 Physician-Accoucheur, 4 Surgeons, and 1 Ophthalmic Surgeon to 305 beds, or, on equal division, 34 beds to each. At St. George's, the same sort of calculation gives an average of 39 beds to each of the staff; but this method is incorrect, and fails to give anything like a true result, for the beds are not equally divided: for instance, at St. George's 200 beds are allotted to Surgical and 150 to Medical cases; and at the London Hospital only about 135 to Medical, and 310 to Surgical cases, giving 100 beds to each Surgeon, and about 34 to each of the Physicians (including the Physician-Accoucheur), while the equal division method would give the staff about 60 beds apiece; and, again, we do not know exactly how the allotted number of beds is divided among each division of the staff; we believe that generally the Obstetric Physician and the Ophthalmic Surgeon have comparatively but few beds at their disposal, except, perhaps, at Guy's Hospital, where special obstetric and ophthalmic departments have long existed. We have the fullest information concerning St. Bartholomew's Hospital, where "the clinical practice comprises a service of 650 beds. Of these 227 are allotted to Medical cases, 20 to diseases of women, 322 to Surgical and ophthalmic cases, and 81 to the syphilitic," so that the four Physicians have 56 beds each, the four Surgeons 100, and the Physician-

Accoucheur 20 ; while at St. Thomas's, as at present constituted, there are 3 Physicians, 1 obstetric Physician, 4 Surgeons, and 1 ophthalmic Surgeon to 200 beds, and as no doubt more beds are allotted to Surgical than to Medical cases, it follows that no Physician has more than 20, and no Surgeon more than 25 or 30 beds. Which is the best arrangement, that the Medical officer shall have the care of from 60 to 100 beds, or of from 20 to 30? Is the staff in excess at St. Thomas's, or too small at St. Bartholomew's? We may be told that any attempt to answer this question would be mere waste of time, for the arrangement obtaining at the latter Hospital is the one sanctioned by time and custom, while that existing at the former of the two is purely temporary, and that as soon as the new St. Thomas's is built, its proportion of beds to Medical staff will, at least, equal that at St. Bartholomew's. We fear that there is some danger that this will be the case, but we must, nevertheless, ask, is it desirable? Looking at the work to be done, or the work that might, and ought to, be done, would it not be much nearer right that a man should have 25 or 30 beds under his care than from 80 to 100? To obtain an answer to this question it is necessary to inquire what Hospitals are for—with what purposes and intentions are they founded? Primarily and chiefly, unquestionably, for the cure or relief of sickness and suffering; and secondarily, for the education of Medical men and the advancement of Medical science. The first and most imperative duty, then, of the Physician or Surgeon is the cure or relief of his patients—their care the first call on his time and on his powers of mind and body—each one of them demanding from him, and having a claim to, a degree of attention as sedulous and minute as if he were a private patient; but is it possible that he can give this amount of care and attention to such a number of Hospital patients? Even had he nothing else to do, and gave up to them the whole of his time, the labour would be very great; but with other work to do, and the calls of private practice to attend to, it is simply impossible, and he is inevitably driven to depend very greatly on his Hospital assistants—that is, on his clinical clerks and dressers, and his House-Physician or Surgeon—men willing enough, and able enough, but as yet only learners themselves ; from the Assistant-Physicians and Surgeons he can look for no help : they are themselves overwhelmed with the out-patient practice. That our Hospital Physicians and Surgeons do strive most conscientiously and earnestly to do their duty by all their Hospital patients every one who knows anything of their labours must fully allow; but it must also be owned that there is a constant struggle between the calls of private practice and Hospital work; that the latter does, most unwillingly, and almost unwittingly, get hurried—we had almost said slurred—over ; and that the Medical officer is so overdriven and overworked that he can only meet the pressing demands of each day, and has neither energy nor time left for reflection and improvement. In the interests of all his patients, then, and for his own sake, is it not certain that it would be much better that a man should have charge of much fewer beds than is generally the case at present? that the proportion of beds to Medical staff now obtaining at St. Thomas's is much more right and just than that at St. Bartholomew's?

But if we now consider the secondary objects of our Hospitals, and look at them as schools for teaching and training Medical men and for the advancement of Medical science, it is still more clear that the Medical officers are overburdened and overworked. It is most deplorable what rich mines of science are left unworked; what stores of facts are wasted and lost for want of time to observe and record them ; what countless opportunities for the increase and growth of knowledge are thrown away from lack of trained and intelligent workers ; what scant use is made of the tide of disease ever flowing through our Hospitals ! It is simply impossible for a man to accurately watch and note the phases of disease when he has sixty or more cases to prescribe for. He is compelled to content himself with a comparatively hasty and superficial examination of each case, to rest on what is already known, or thought to be known, and taught concerning each disorder, instead of being ever on the watch to rectify or add to that knowledge ; and as to teaching others (!) clinical teaching becomes perforce almost a farce, except for the few students who are clinical clerks or dressers, and have therefore to get up the cases for the Physician or Surgeon. But give each Medical officer only twenty-five or thirty patients to treat, and he could then make every case a real study, and could teach its lessons to the students. We should not then have so many men leaving our Hospitals absolutely ignorant of bedside practice. We should not then hear so often of the superiority of foreign Hospitals as schools of observation, and research, and clinical instruction. That our schools do send forth admirably well-taught and trained Practitioners, and that some noble monuments of the value of our Hospitals as places of study and original research are produced we are not absurd enough to deny for a moment, nor are we much in love with the cuckoo-cry of "they manage these things better in France" or elsewhere abroad; but we do affirm that our schools turn out numbers of half-trained and half-educated men, and that a lamentably large amount of material runs to waste, and vast opportunities for the improvement and increase of knowledge are lost in our Hospitals ; and we further assert that all this is largely owing to the too great labours laid upon our Hospital Physicians and Surgeons. We have not drawn our illustrations from St. Bartholomew's Hospital because we think it an unusually flagrant example of what we complain of—on the contrary, we think the machinery for teaching fuller and less imperfect there than in many other schools ; but we possess the fullest details concerning its staff and divisions of beds, and it ranks so high as an Hospital and school of Medicine, that the faults and shortcomings of our Hospital system stand out more conspicuously there than in schools of less eminence ; and who will say that St. Bartholomew's, with its 5600 in-patients and 120,000 out-patients and casualties yearly, does all that it might, and ought, for the advancement of Medical science?

We have spoken only of the in-patients of our Hospitals, but our observations would apply also to the manner in which the crowds of out-patients are "seen." The phrase is true and expressive enough. From 200 to 300 or more attend daily at most Hospitals, and, as a rule, can be "seen" only. No exact diagnosis or recording of their cases is possible. (One Hospital—a small Hospital, with by no means a large staff—actually advertises that it "relieves"—that is the word, we think—about 4000 patients weekly, including on an average some 1300 new cases. Where they can come from ; what may be their claim to charity ; how they are "seen" and prescribed for, are among the things "no fellah can understand.") But every case that passes through our Hospitals ought to be so recorded as to be available for scientific and statistical purposes. Every Hospital ought to enrich our Professional literature with its annual "reports" of valuable facts and observations. Every Medical school ought to have its clinical classes, in which every student ought to be obliged to pass some months of his career. But before these things can be done, the Medical and Surgical staff of every Hospital must be largely increased in proportion to the number of patients. It would be too much, we fear, to hope for such a change at Hospitals long established and of fixed constitution and size, as St. Bartholomew's and Guy's ; too much, at least, to hope for the initiation of such changes from them. Custom and habit, and "vested interests," and various other bugbears would start up in opposition ; but where Hospitals are being altered, remodelled, and enlarged, it will be a shame and disgrace if, among other improvements, they are not improved in this point also. The managers of St. Thomas's and the London Hospitals have now such an opportunity before them ; and in the interests of their patients and of the Profession it is their duty not to let the opportunity slip. We will hope that when

they enlarge their Hospitals they will also have the sense and courage to increase the Medical and Surgical staff, so as to meet all the claims of the patients, of the students in their schools, and of Medical science.

THE WEEK.

THE SOCIAL POSITION OF THE ARMY MEDICAL OFFICER.

In the articles which have appeared in this journal on the Army Medical Department we have endeavoured to show what are the real grievances of the Medical officer. They are numerous and grave enough; their number does not require to be eked out by the invention of imaginary ones, nor does their colour require heightening by representations which are as untrue as they are derogatory to the Army Surgeon. A number of ridiculous letters have lately made their appearance in military and other papers about the way Medical officers are treated by their combatant brethren. It may be well questioned whether any Medical officer is treated as a snob unless he deserve it. If a man be a gentleman, and possess the qualities which would render his society agreeable or tolerable out of the service, he will always meet with good treatment in the service. Really there is a danger that the public will begin to believe that Medical men are snobs if they go on asserting it so strongly. Our experience of Army Medical matters is that in military society all officers are treated equally well. Of course, if a man be a snob he will get the consideration and treatment of one, and neither crimson, spurs, relative rank, nor the prefix of Field-Marshal will prevent it—nor should it. In our editorial comments on the state of the Department we have systematically endeavoured to steer clear of this sort of thing. Far too much has been said on the matter, and much of what is written about combatant and non-combatant officers may be included in the word "*bosh.*" No doubt there is a jealousy of the Medical officer as possessing rank, and it is quite true that every attempt has been made to neutralise the Warrant of '58. It is probable that if the Medical were made a separate Department, like the Royal Engineers, it would be better for the Profession, deeply as many Army Surgeons would regret the doing away with the present regimental plan. Such a measure would no doubt be unpopular at first, and for its ultimate success a really talented and high spirited head would be essential. Be this, however, as it may, the effusions which make their appearance, in the military journals especially, are ofttimes absurd, and are calculated to bring the Profession into derision with the combatant officer. The worst of it is that this kind of thing goes on increasing. The second and third class men, whom the authorities prefer, are the very men who make all this noise about their meeting with the treatment of snobs. We do not deny that the position occupied by the Medical officer in some regiments, at mess for instance, is bad, but it is the exception nevertheless. There are a great many fair and logical grievances in the Department, and it is enough to adhere to these. It would be useless to deny that some of the absurd and unfair restrictions imposed upon Medical officers by the War Office have resulted from the way in which certain of their number have acted. In the matter of diets, for instance, we have seen and heard of a carelessness and recklessness of expense enough to make more amiable men than War Office officials wrathful. These things will improve only by the admission of a set of good men into the Department—men really fond of their Profession, and this class will not enter so long as parades, inspections, clerk work, rifle practice, and the dead level landscape of slow promotion, protracted foreign service, and small pay, form the duties and prospects of the Army Surgeon. Still we maintain that the tone of the letters we have been criticising, and, we may add, of the articles of our facetious and well-meaning contemporary *Punch*, is hurtful to the standing of Army Surgeons as gentlemen, and grossly exaggerated. Army Doctors are not treated as snobs!

THE PENSIONS OF INDIAN MEDICAL OFFICERS UNDER THE NEW WARRANT.

To say that Sir Charles Wood's new scheme for the Indian Medical service has produced nothing but dissatisfaction would be to describe its effect in far too mild language. The whole of the Indian press is unanimous in condemning in no measured terms the unworthy juggle by which a British statesman has thought fit, under pretence of benefitting, to injure a devoted and honourable branch of the public service. We might fill our columns with articles from these papers and with the indignant letters of our Indian correspondents. We must, however, content ourselves at present with the following extract from a leading article in the *Bombay Gazette* of August 2, 1864, on the subject of the pensions granted under the new scheme, which, if the interpretation given it be correct, affords another remarkable commentary on the boasted "fairness" and "liberality" of the Government measure:—

"On the question of pensions, it is well that Indian Medical officers should guard themselves against the delusion of supposing that their invalid pensions have been increased by the late despatch to the scale granted to officers of the British Medical service by the Warrant of October 1, 1858, as nothing of the kind is intended by paragraph 15 of the despatch, which, however, is so ambiguously worded as to lead, at first glance, to the belief that such was its intention:—'Officers compelled to leave the service by ill-health and entitled to half-pay pensions under present regulations will be allowed the half-pay pensions of their relative ranks as laid down in the Royal Warrant of October 1, 1858;'—which does not mean that they are entitled to the scale of half-pay pensions laid down in that Warrant, but to half-pay pensions according to the relative ranks that have been assigned to them in that Warrant. The relative ranks and half-pay are as follows:—

Assistant-Surgeon as Lieutenant . .	£73 per annum.
After six years' service as Captain .	127 ,,
Surgeon as Major	173 ,,
Surgeon-Major as Lieut.-Colonel . .	200 ,,

"The disparity between these rates of half-pay pensions for the Indian service as compared with the very liberal scale that has been sanctioned for the British service is clearly represented in the following table. It is a sore disappointment to the Indian service that, notwithstanding all the remonstrances that have been made, and all the memorials that have for many years been forwarded praying for a revision of the scale of pensions, Sir Charles Wood should have set his face so determinedly against any improvement in this respect.

"*Table of Full and Half-Pay Pensions to Medical Officers of the Indian and British Services:—Note.*—(The full pensions are claimable by right after the periods mentioned, and the half-pay pensions on certified ill health compelling officers to retire from the service.)

Indian Service.			British Service.	
Years' Service.	Half Pay Pensions.	Full Pensions.	Half Pay Pensions.	Full Pensions.
	£		£	
Under 5 years . .	73	—	109	—
After 5 ,, . .	73	—	146	—
,, 6 ,, . .	127	—	146	—
,, 10 ,, . .	127	—	182	Asst.-Surg.
,, 10 ,, . .	173	—	200	Surgeon
,, 15 ,, . .	173	—	246	—
,, 17 ,, . .	—	191	246	—
,, 20 ,, . .	200	—	301 to 546	—
,, 21 ,, . .	—	250	301 to 546	—
,, 25 ,, . .	—	300	337 to 611	319 to 574
,, 29 ,, . .	—	365	—	—
,, 30 ,, . .	—	365	465 to 684	434 to 574
,, 32 ,, . .	—	500	—	—
,, 35 ,, . .	—	700	—	—

"The half-pay pension of a Surgeon-Major in the Indian service after twenty years is £200, or exactly the same as is given to a Surgeon of the British service after ten years!! In the grades of Inspector and Deputy-Inspector-General the pensions in the British Service are regulated by rank, while in the Indian service they are given by length of service only. The above is a good illustration of the method which Sir Charles Wood has taken (to use his own words) 'to place the two services on a footing of equality' and 'to remove all cause of complaint.'

"The Indian Medical service could not anticipate much from the liberality of Sir Charles Wood in the new organisa-

tion of the service; but they did expect their position to be improved, and the numerous grievances against which they have so long remonstrated to be removed. It was never dreamt that their pay would be reduced, and their grievances remain unredressed. It is not too much to say that a very few concessions made in a spirit of liberality would have satisfied them, and would have attracted a superior class of candidates to the service. It can be stated in a very few words what the Medical service did look forward to and what they would have been satisfied with; they expected to receive the effective pay of their relative ranks with a graduated scale of staff salary similar to that granted to military officers in the new organisation of the army; they also expected to be put on a footing of equality with Medical officers of the British service in regard to the commissions and pay of their deputy-inspectors-general as well as to have their pensions regulated by rank, as in the British service. If these expectations had been realised, the service would have been perfectly satisfied, and it is much to be regretted that the want of a little liberality on the part of the Secretary of State should have frustrated so desirable an end. If the despatch had been accompanied by a statement of how the Medical service in India was in future to be provided for, with some guarantee for the stability of their retiring funds (it being very evident that the present service is doomed to be gradually absorbed), the scheme would have been complete. Instead of this, for nearly six years it had been bandied about from Calcutta to England again and again, a great deal of valuable time and trouble has been expended in devising a most illiberal and deceptive measure, which satisfies no one, and which must signally fail in attracting any but a very inferior class of candidates to the service."

THE RECENT CASE OF FATAL POISONING BY THE CALABAR BEAN.

The chemical evidence given by Mr. J. B. Edwards at the inquest on the child who was poisoned by the Calabar bean at Liverpool is of considerable interest. It will be remembered that of between fifty and sixty cases in which poisonous effects were produced by the bean only one ended fatally. The deceased was a boy about six years of age. The post-mortem examination showed all the organs healthy with the exception of the lungs, which were somewhat tuberculous. The stomach and upper part of the small intestines contained a substance resembling slightly digested nuts. The following is Mr. Edwards' evidence as reported in the *Liverpool Mercury* of August 20, 1864:—

"Mr. John Baker Edwards deposed,—I am an analytical chemist and lecturer on Medical Jurisprudence at the Royal Infirmary School of Medicine, Liverpool. On Friday, the 12th instant, I attended a post-mortem examination of the remains of the deceased Michael Russell, and removed the stomach, intestines, and parts of the viscera of deceased in jars, which I conveyed to my laboratory at the Royal Institution for chemical examination. On the same day I received from Inspector Moore a parcel of beans, said to be similar to those of which the said Michael Russell had eaten. The beans are those known in Medicine as Calabar ordeal beans (*Physostigma venenosum*). I then proceeded to make an alcoholic extract of the beans, also of the contents of deceased's stomach, and of the contents of deceased's intestines. The stomach contained only five fluid ounces of fluid, consisting of a few fragments of the bean and the remains of a mustard emulsion which had been administered shortly before death. The quantity of alcoholic extract from the stomach was, therefore, very small, and its reactions were obscured by the mustard. After further purification by ether, an extract was obtained which caused marked contraction of the pupil in the eye of a rabbit when applied to it externally. From the intestines of deceased I obtained seventeen fluid ounces of an emulsive fluid, which, after digestion with the alcohol, yielded an extract, which was then purified by ether and evaporated. This etherial extract corresponded in its reactions with a similarly prepared extract of the beans under examination. The chemical reactions on a watery solution of the etherial extract are as follows:—1. A pink colour, struck by caustic potash, which gradually increases in intensity to a deep red, and when mixed with chloroform forms a deep red chloroformic solution, which separates from the clear yellowish supernatant liquor. 2. A red colour, struck by strong sulphuric acid, with separation of a resinoid coagulum. 3. A violet colour, changing to red by sulphuric acid and crystals of bichromate of potash. 4. A similar colour, with sulphuric acid and binoxide of manganese, retaining the purple colour for a long time. 5. A yellow precipitate, with solution of iodine in iodide of potassium. 6. A purple colour, with trichloride of gold and reduction of metallic gold. 7. A yellow colour, struck with caustic ammonia, which, exposed for some hours to light, turned green, and finally a deep blue. I applied a few drops of the aqueous emulsion of this etherial extract, obtained from the intestines of deceased, to a frog's back, by insertion under the skin. In a short time the animal manifested an indisposition to movement, and became very quiet. In the course of an hour it became unable to jump, or to remove the position in which its limbs were placed, and in about two hours it became perfectly flaccid, and insensible to any external irritation; although stimulated by strychnine, it was incapable of being roused to muscular exertion, and soon expired, having previously exhibited very irregular respiration and pulsation. A second portion of the emulsion was exhibited to a mouse, which became soon paralysed in its limbs, and died after a few hours. A third portion was introduced into the circulation of a mouse by the ear, and after twenty-four hours the poison operated fatally by complete paralysis of the limbs and senses, and the animal died by syncope. A fourth portion of the emulsion from the intestines of deceased applied to the eye of a rabbit caused strong contraction of the pupil after three-quarters of an hour. Similar results were obtained by an etherial extract of the bean itself."

It will be noticed that, according to the above experiments, Calabar bean produces the same play of colours with sulphuric acid and bichromate of potash as does strychnia. This is an important fact in a Medico-legal point of view, and curious, considering the physiological effects of the two poisons. The courtesy of Dr. Cameron, Physician to the Southern Hospital, Liverpool, under whose care the greater number of the little patients were, enables us to promise our readers ere long a full Medical report of the cases.

TYPHUS FEVER IN GLASGOW.

The following is a summary of the more important points in a valuable paper by Dr. I. B. Russell in the July number of the *Glasgow Medical Journal*, entitled "Analysis of Three Hundred Cases of Typhus." The localities from which the people came were of course some of the lowest in Glasgow, but, nevertheless, "privation" was not a remarkable characteristic of them, the majority of those admitted appearing well nourished. On the other hand, overcrowding and want of personal cleanliness were remarkable characteristics. He tells us of from five to fifteen persons of both sexes sleeping in one apartment, and observes, truly enough, that it is not surprising that under such circumstances the necessary ablutions were not performed. In fact, the skin is to such people virtually lost as an organ, being coated with the accumulated excretions of years. Not a few, it appears, had no idea how their illness arose, although the majority traced it to some form of contagion. The danger of sleeping with patients recently dismissed from Hospital seems to have become recognised among the poor. The author then passes on to describe what he observed as the mode of invasion, which was usually marked by severe constitutional symptoms, in many instances preceded by malaise, the health seeming to be gradually broken down by successive doses of the poison, until at last the nervous centres became functionally deranged, and the pyrexia were established. The cases where the rigors were severe and recurrent and the muscular and cutaneous hyperæsthesia great, proved severe and protracted. As a rule, he found the eruption present at all ages, although in children it sometimes existed only as a muddiness of the skin, which rarely became ecchymosed. He concludes that the only crucial symptom in the diagnosis of enteric fever and typhus is dependent on the lesions in the lower part of the small intestines, and that though the typhus eruption may have various of the attributes of the enteric in different cases, it never was noted to have that of

successive crops. Dr. Russell's experience does not confirm the remark of Murchison, that "abdominal pains and tenderness are rarely complained of," as they were present in forty out of fifty-two cases; when local they were commonly substernal and apparently hepatic, and if well marked were usually accompanied by a tendency to yellow diarrhœa, the symptom being relieved by purges of calomel and rhubarb. Speaking of the blood dyscrasia, he says that in one case the corpuscles showed no disposition to aggregate in rolls, but seemed to have sustained a softening of their cell wall, and they were mis-shapen. Urea was sought for in the blood in four fatal cases, and in all successfully. As respects crisis, he describes a critical paroxysm in which the acmé, mostly marked by lesion of the circulation, frequently bears no proportion to the severity of the phenomena on the previous day, and in which there would seem to be a deadly close between the strength of the disease and the strength of the patient's system. The day of crisis was noted in 142 cases, and from the 11th to the 16th were the favourite days, the 14th being the most usual. His remarks upon the treatment are very valuable and important. The first step on admission is to cleanse the skin by a bath, and the primæ viæ by an emetic, followed by a calomel and rhubarb purge. A spontaneous diarrhœa serves, he thinks, as a vicarious discharge in the elimination of urea, and should merely be kept in hand, not stopped. On the morning after admission the patients got a mixture containing one of the mineral acids with five grains of nitre or twenty drops of ether, with about a drachm of juniper in water, every two or four hours. The nitro-muriatic acid and nitre were given to cases with marked hepatic tenderness, with good results. He found turpentine (fifteen to twenty drops every two hours) a valuable remedy when the lungs were engorged with bronchitic mucus. In convulsions he prefers as the most hopeful procedure purging repeatedly with croton oil. For bed sores he uses chloroform and gutta-percha solution. The state of the pulse and eruption were the guiding data for the use of stimulants, which he found most advantageous just before the crisis and during the critical paroxysm. Out of 323 cases, 198, or 61·3 per cent., were treated successfully without any stimulants at all, those patients above 15 years of age required stimulants in little more than half the cases, while those below it, as a rule, required none at all. Dr. Russell furnishes, at the close of his paper, a table which shows how the necessity for stimulation increased with each decade in the age of the patients.

FROM ABROAD.—THE EXPERIENCE OF THE NEW YORK FEVER HOSPITAL—M. CLAUDE BERNARD ON THE PROPERTIES OF OPIUM.

THE *American Medical Times* furnishes some account of the experience derived from the Fever Hospital recently established at New York, this being the first attempt made there to isolate typhus from the other Hospitals. Fever wards had, indeed, been set apart at Bellevue Hospital, but no rigid quarantine was established, and when typhus prevailed it always extended to patients in other parts of the house. "The greater number of Medical officers and superintendents of Hospitals have acted on the theory that typhus is not very contagious, and the efforts to isolate it have not been very strenuous. This is not surprising when we find such an authority as Florence Nightingale advocating the plan of distributing typhus patients through general wards. But whatever theoretical speculations may have been entertained heretofore, no candid observer can doubt that during the recent epidemic in Bellevue Hospital the question of the propriety of the complete isolation of fever from general patients has been definitely settled. It was only after a large number of patients and resident Physicians had been attacked, and the death of several of the latter, that sufficient interest was awakened to lead to decisive action. If any further evidence were needed of the intense contagiousness of typhus than that furnished by the past history of fever in Bellevue, we have it in the records of the Fever Hospital during its short existence. The fever cases are at present placed in tents on Blackwell's Island. On entering the Hospital the patient is bathed and supplied with a clean Hospital-shirt, his own clothing being removed and washed. The tents are near the water's edge, the sides are raised, and the sweep of fresh air is constant and generally very strong over the floor and beds. No perceptible odour is ever noticed in or around the tents, nor does there seem to be the slightest difference between the internal and external air. And yet no less than six unprotected attendants, who did not even sleep in the tents, have contracted the disease within this short (two months) period. Such an argument in favour of the complete isolation of typhus is unanswerable. It would be apparently quite as rational to distribute small-pox through the general wards of a Hospital where the patients were unprotected as to distribute typhus. Another lesson we may learn from the above fact is this, that fever attendants should always be protected by having once had the disease. It is wrong to allow nurses and friends who have not thus been rendered exempt from the disease to attend upon, or even visit, the sick. The second fact of interest developed by the fever-tents is the immense value of the open-air method of treatment. The exposure of the patients to the fresh air is as great as it would be if they were placed under the shade of a tree in an open field. The following facts are obtained from the records for the month of July:—The number of cases treated was 85, of which 5 died and 81 recovered, giving a mortality of 1 in 16·2, or 6·1 per cent. Of the 5 fatal cases 1 died fifty hours after admission, 1 had chronic cystitis, and 1 had pneumonia. The cases were, on an average, of a severe type, the eruption was always present and profuse, and convalescence rarely began before the sixteenth day. The treatment consisted in nourishing broths, sponging, etc., without stimulants or other forms of medication, except simple remedies to meet symptoms. This remarkable percentage of recoveries seems justly attributable to the open-air method of treatment. For, if we compare the mortality in the same class of cases, when treated only a month or two before in the fever wards of Bellevue, we find that 1 in 9, or 11 per cent., died, a mortality nearly two-fold greater. The writer goes on to show that, contrasted with the treatment of typhus in Britain, where, according to Dr. Murchison, the mortality is one in five of those attacked, these results of the open-air treatment are, indeed, remarkable; and he concludes that the lessons taught by the Fever Hospital may be stated to be—1st, the necessity of quarantine in typhus; 2, the importance of removing it from general Hospitals; 3, the necessity of excluding all attendants, nurses, and Physicians who have not become protected by having had the disease; and, 4, the value of open-air treatment.

At the last meeting of the Academy of Sciences, M. Claude Bernard read the first part of a memoir upon the physiological properties of opium and its alkaloids. He has experimented upon morphine, narceine, codeine, narcotine, papaverine, and thebaine, and he states that the three first only are soporific, inducing sleep each after its own manner. The three latter are toxical. From this it results that opium is a mixture of a great number of substances, the properties of which, as regards the economy, are not alike. It is more than probable that these six substances are not the only ones contained in opium. The experiments were performed by the hypodermic injection of a centigramme of the hydrochlorate of these alkaloids, various animals, as dogs, cats, rats, guinea-pigs, etc., being employed. Morphine has been found to induce deeper sleep than codeine, narceine occupying the mean position between them. This last substance, as yet, has not been administered to man, but MM. Debout and Béhier have been engaged in an investigation of its action on the human economy, which will soon be published. All the derivates of opium are toxical, but in different degrees. Thus, thebaine is the most highly so, and then comes codeine; whence it follows, contrary to the general opinion, that the gummy extract is more dangerous than morphine. Practitioners, too,

are wrong in prescribing codeine in a larger dose than morphine, for two or three centigrammes of codeine injected into the veins of a dog rapidly killed it. With the exception of thebaine, all the alkaloids of opium induce convulsions; but animals poisoned with thebaine die in a condition of relaxation. Thus, we may conclude that the same plant may contain very dissimilar medicinal substances.

*** The *Medical Times and Gazette* of September 24 will contain a full and faithful report of all physiological papers and discussions at the Bath Meeting of the British Association for the Advancement of Science.

SCURVY IN THE MERCANTILE MARINE.

(*From a Correspondent.*)

The Medical Report of the Privy Council for the past year is probably the most important as yet issued, in that it reveals to the public eye glaring evils and foul diseases flourishing in the midst of us, the most of which are preventable. Scurvy holds a chief place in Mr. Simon's Report; and it is a disease so utterly inexcusable in the present progressive state of sanitary science, that it should claim at once the serious attention of the Legislature. The importance of its thorough eradication from our mercantile marine cannot be exaggerated, when we consider that, apart from the interests of humanity, the safety of a ship, with her cargo, passengers, and all belongings may mainly depend on the presence or absence of this disease. Thousands are spent annually in providing for our metropolis inspectors of health and improving in every possible way the drainage and sanitary arrangements of our streets and dwelling places. But it appears to be totally forgotten that the very class on whom the commercial prosperity of London depends have received no benefit whatever from sanitary legislation—are herded together in the same uncleanly fashion, and subsist upon the same beef and biscuit as in the days of our forefathers, when the forest of masts that now adorns our river and its precincts was a very little plantation indeed. The public will be surprised to learn, from the statistics of the *Dreadnought* Hospital ship, that, during the last twelve years, the entries on account of scurvy have remained at a fixed average; that eighty-six cases were admitted last year; that Liverpool ships take unenviable precedence in sending the largest number; and that fifty-four are already entered on the books of the *Dreadnought* for the present year. Inquiry has also elicited the following particulars:—That many vessels have no lime-juice on board; that in many more the lime-juice is so bad as not to be drinkable; that from 30 to 70 per cent. of the crews of vessels are frequently disabled from scurvy, so as to reduce the manual power at least one-half; it being, too, tolerably well known that most ships are undermanned. *Apropos* of bad lime-juice, we are told by a letter from a Liverpool correspondent in the *Times* of August 29 that a large proportion of so-called lime-juice shipped at that port contains no juice of the lime or lemon at all. Two cases of scurvy have, during the past week, been received on the *Dreadnought* from a vessel that assisted to swell the number of admissions from this disease last year, and similar instances could be quoted by which ships have gleaned a reputation (?) for scurvy. In thus briefly remarking upon this Report, we have but to remind our readers that for many years the Royal Navy has been entirely free from this malady, and that two or three lines of ships, sailing from the port of London, would, in the persons of their owners and captains, deem it almost an insult to be asked if cases of scurvy ever existed among their crews. It never occurs on these ships, and they finish a voyage to and from India and China with their men in as healthy a state (*in re* scorbutic diseases) as when they started from Gravesend outward-bound. These facts show very clearly indeed that there is ample scope on this head for the exertions of our sanitary reformers. The work would be good in every way, for it would soon obliterate from our sick returns a disease the existence of which is a national disgrace, and it would lessen, in a superlative degree, the severity of other ills to which flesh is heir, and the causes of which are beyond the control alike of the Physician and health officer. But the law must aid this cause as it has aided others; the remedy can, and ought to be, so effectual that cases of scurvy would be almost unknown, and we should then establish a sanitary prestige for our mercantile marine.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF BIRMINGHAM.—(*Continued.*)

THE WORKHOUSE.

In my last report I made reference at the close to the Workhouse and the Workhouse Infirmary of Birmingham. In regard to the sanitary state of the building, I may add that, large as the House is, it seemed to me to be much crowded in parts, and to be open to considerable improvement. This was specially the fact in the female wards in which cases of syphilis are treated. The ventilation of the House is by shafts from the ceiling, and the warming is effected by passing steam through iron pipes and by open fire-grates. The drainage is considered effective, but the sewage is lost by being allowed to pass into the canal.

The schools for the children are very commodious, and both the boys and girls are taught useful arts. The boys learn shoemaking, tailoring, carpentry, tinwork, and even engineering; the girls are instructed in needle-work, knitting, washing and ironing, house cleaning, and cooking. The girls' kitchen in which cookery is taught is fitted up in the most simple manner; there is no artificial apparatus allowed but a plain open fire-grate, a bottlejack, and a hastener. The girls learn in this way the plainest art, such it is supposed as they will require when they first enter service, or have to cook in after life for their own families.

The church connected with the institution is beautifully fitted up; and in addition to the church there is a chapel, in which ministers of all sects are permitted to preach to their respective flocks. Here the Roman Catholic priest throws open his altar and performs mass; and when he has finished and closed his altar door, here, also, the Wesleyan minister, or minister of other denominations, wheels forward his rostrum and goes through his simpler service. Thus during the whole of Sunday services are progressing; and the inmates, whatever may be their faith, find the ministrations of it at hand. In America such freedom of worship is by no means uncommon, but I have heard of no other example of the same kind in this country.

I spoke of the schools a moment ago, and must return to them to state, in a line or so, that there are two probationary schools, conducted on the reformatory system, which are found to be of great service.

The girls are very neatly attired, the blue overdress common to almost all workhouses being replaced by a dress of Holland cloth—a small but striking improvement. The boys are not so nicely attended to in the matter of habiliment.

At the time of my visit there were in the establishment—

Old and infirm men and women	975
Able-bodied men and women	107
Children	654
Imbeciles	126
Tramps	220
Total	2082

The visitor to Birmingham who is interested in social, sanitary, and Medical questions will do well to visit this great Workhouse, in which he will find everything open to his inspection; for the people of Birmingham have learned the great political lesson that to conceal is to court the worst censure, and that faults and defects are least odious when they are most freely exposed to view.

In conclusion, I would take the opportunity of thanking the Master and Mistress of the Workhouse for the attention which they showed to me in the course of my long visit.

PAROCHIAL MEDICAL PRACTICE.

The Birmingham Union is divided into six districts, held as follows:—

District.	Medical Officers.	Yearly salary.
1	C. R. Suffield, M.D.	£155
2	W. Hoare, Esq.	155
3	C. B. Suckling, Esq.	155
4	E. White, M.D.	155
5	G. Hawkesford, Esq.	155
6	J. Darwen, Esq.	155
Workhouse	E. Robinson, M.D.	240

The arrangements of the parochial affairs in Birmingham

are of the most perfect order. Under the able guidance of Mr. J. Corder, the clerk to the guardians, every minute respecting the poor is recorded with the most perfect accuracy, and in no department more than in the Medical. In this portion of the administration a weekly summary is printed, showing at a glance the whole of the diseases which have been observed, and the mortality of these diseases. This summary is drawn up in the following manner :—

Summary of Medical Relief Cases and Deaths.

Medical Officers.	District.	Cutaneous Diseases.		Fever (Mild)		Fever (Typhus and Typhoid.)		Fever (Scarlet).		Measles.		Small-pox.		Small-pox after Vaccination.		Erysipelas.		Whooping Cough.		Diarrhœa.		Consumption.		Other Cases.		Total Cases.	Total Deaths.	Medical Relief Orders Issued.	No. of New Cases included in the preceding Columns.
		Cases.	Dths.	Cases.	Dths.	Cases.	Dths.	Cases.	Dths.	Cases.	Dths.	Cases.	Dths.	Cases.	Dths.	Cases.	Dths.	Cases.	Dths.	Cases.	Dths.	Cases.	Dths.	Cases.	Dths.				
Dr. C. R. Suffield	No. 1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	..	4	..	60	2	69	2	17	18
Mr. Wm. Hoare	„ 2	..	..	9	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	3	..	4	..	115	2	134	2	22	20
Dr. C. B. Suckling	„ 3	..	..	12	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	87	3	103	3	30	35
Dr. Ed. White	„ 4	..	..	1	..	..	..	1	..	3	..	..	..	..	..	1	..	1	..	2	1	8	..	188	4	205	5	59	55
Mr. G. Hawkesford	„ 5	..	..	1	..	1	1	..	..	..	..	..	..	..	..	1	..	4	1	4	..	5	..	95	..	111	2	16	15
Mr J. Darwen	„ 6	..	..	1	..	..	..	4	..	..	..	..	..	..	..	..	..	2	..	1	..	1	..	92	..	101	..	17	22
Dr. E. Robinson	Workhouse	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	11	..	..	..	9	2	580	3	604	5	..	30
	Total	4	..	25	..	1	1	6	..	3	..	..	..	..	..	2	..	21	1	14	1	34	2	1217	14	1327	19	161	195

Clerk's Office, Paradise-street, January 1, 1864. JAMES CORDER, *Clerk to the Guardians.*

These important papers, kept now for many years past, afford materials for an analysis of current diseases in Birmingham that admit of being turned to the most useful account in the study of the etiology. Were the facts relative to the prevalence and course of disease drawn up by every parish in the same careful manner, and transmitted regularly to the Registrar-General's office to be analysed and reported upon, as the certificates of death now are, we should have a registration of disease of England such as is possessed by no other country. On two occasions, some years ago, I took the initiative in drawing the attention of the Profession and of the Government to a plan having this object in view, and some day the plan must, I think, be carried out. It may be predicted without any hesitation that in the absence of a method of research as comprehensive as is here designed, no correct exposition can ever be obtained respecting the origin, course, and results of communicable disorders.

THE GENERAL INSTITUTION FOR THE BLIND.

The Institution for the Blind is now situated at Edgebaston, near to Birmingham. It was founded in 1848, and at first was placed in the town, in Broad-street. In 1851 the foundation-stone of the present asylum was laid by Thomas Goodman, Esq., and a neat building was soon erected. Since then the Institution has been in active operation, and has been of great value. I was so unfortunate as to find the building under entire repair when I called, so that it was impossible for me to see the pupils at work, but I learned that from seventy to seventy-five scholars reside in the Institution; that the males number from thirty to thirty-three, and that the remaining majority are females. The inmates come not only from the town of Birmingham, but from Warwick, Stafford, and other counties; about 33 per cent. are from the town. Besides the indoor teaching, there is an out-door branch, teachers being sent from the Institution to the blind of the surrounding districts, and nearly one hundred persons a-year are thus instructed. The instruction consists of various handicrafts and fancy works, of writing on Professor Leone Levi's system, of arithmetic, and of music. The last art is taught with considerable success, nine male students from the Asylum having received appointments as organists during the last few years.

Medical Staff.—Dr. Bell Fletcher is Physician, and G. Elkington, Esq., is Surgeon to the Institution.

THE GENERAL INSTITUTION FOR THE INSTRUCTION OF DEAF AND DUMB CHILDREN.

Close to the Institution for the Blind is another kindred charity for the deaf and dumb. This institution has been in existence for fifty-two years. It affords an asylum for more than a hundred children, the boys and girls being nearly equally divided. The Asylum is beautifully situated, and the rooms, schoolrooms, and dormitories are large, light, and pleasant. With the exception of a short and sharp epidemic of sore throat in 1863, the health of the inmates has been at all times remarkably good.

The children are taught to read and to communicate by the sign language. The method of teaching conducted by the learned master of the Asylum, Mr. Arthur Hopper, B.A., differs somewhat in detail from that followed out at Brighton, and which I have already described. Mr. Hopper is specially careful in teaching the use of verbs in their various voices, moods, and tenses, and he has published an elaborate work consisting of a series of lessons in this branch, which work is held in great estimation. The pupils one and all were most co mmunicative, and went through various exercises with as much rapidity and precision as though they could hear and speak. At a breakfast at which I was present, one of the scholars delivered grace before meat in the sign language with as much ease as though he were a practised speaker, and the others followed him with almost equal fluency.

Idiotic children are not admitted into the Asylum, and the test between idiotcy and deaf mutism is found to be easily conducted. In some few cases the children could catch certain sounds, and in response could give utterance to other sounds in words: but these also acquired the sign language, and found it most ready and convenient. The causes of deafness were described to me almost in the same terms as at Brighton. Congenital deafness and acquired deafness, mainly through scarlet fever, were assigned as the chief causes. The children were all well made, and I could detect no marked case of deformity or malformation amongst them, deaf mutism, of course, being excepted.

I gleaned from Mr. Hopper his experience as to the period of life at which words are remembered and retained, in instances where deafness has come on in those born with every sense perfect. He tells me that if in persons so afflicted the deafness is complete in the fifth year, they are virtually deaf and dumb. Although they may have heard and may have spoken, they are sure to forget sounds and to become obliged to make themselves understood by signs only. This is an important prognostic fact for the Medical practitioner, and one which he would not be likely to learn from his own experience, in a few isolated cases.

In his last report, Mr. Hopper has drawn from the works of the Abbé de l' Epeé a graphic and clear description of the method of teaching the deaf and dumb; and as in remote districts it might, without derogation, be an useful and profitable task to a Medical man to teach some afflicted child how to communicate with his fellows, I place, without a word of apology, these rules of the distinguished Abbé before the reader.

Lessons of the Abbé de l'Epée on the Method of Teaching the Deaf and Dumb.

It is not by the mere prounciation of words in any language that we are taught their signification. The words *door*, *window*, etc., etc., in our own, might have been repeated to us hundreds of times in vain; we should never have attached an idea to them had not the objects designated by these names been shown to us at the same time. A sign of the hand, or of the eye, has been the sole means by which we have learned to unite the idea of these objects with the sounds that struck our ear. Whenever we heard these sounds the same idea arose in our minds, because we recollected the signs made to us when they were pronounced.

Exactly similar must be our measures with the deaf and dumb. Their tuition commences with teaching them a manual alphabet, such as boys at school make use of to hold conversation at one end of a form with their companions at

the other. The various figures of these letters strike forcibly the eyes of the deaf and dumb persons, who no more confound them than we confound the various sounds that strike our ears.

We next write (I say *we*, because in the operations with my deaf and dumb pupils I frequently have assistance) in large characters, with a white crayon upon a black table, these two words, "the door," and we show them the door. They immediately apply their manual alphabet five or six times to each of the letters composing the word "door" (they spell it with their fingers), and impress on their memory the number of letters and the arrangement of them; this done they efface the word, and, taking the crayon themselves, write it down in characters, no matter whether well or ill formed; afterwards they will write it as often as you show them the same object.

It will be the same with respect to everything else pointed out to them, the name being previously written down.

The pupil will obtain in very few days a knowledge of all the words which express the different parts of our frame, from head to foot, as well as of those that express the various objects which surround us, on being properly pointed out to him as you write their names down on the table.

We are not even in this early stage to confine ourselves to this single species of instruction, amusing as it is to our pupils. . . . We guide their hands to make them write down, or we write down for them ourselves, the present tense of the indicative of the verb to carry.

Several deaf and dumb pupils being round a table, I place my new scholar on my right hand. I put the forefinger of my left hand on the word *I*, and we explain it by signs in this manner: showing myself with the forefinger of my right; I give two or three gentle taps on my breast. I then lay my left forefinger on the word carry, and taking up a large quarto volume, I carry it under my arm, in the skirts of my gown, on my shoulder, on my head, and on my back, walking all the while with the mien of a person bearing a load. None of these motions escape his observation.

Having explained his manner of teaching his pupils the remaining persons of the singular, and the three persons of the plural number, he proceeds as follows:—

It is unnecessary to say how much our new student is delighted with this operation. Nevertheless, we have to obviate a small difficulty. I set him to go through all he has seen me do with regard to the persons of the singular and plural. He begins; and falls into an error at the outset, although he cannot be said to be in fault. Having his left forefinger upon "I," he carries his right to my breast, thinking that my name was I, as he had seen me several times designate myself by that word.

To correct this mistake, I immediately desire five or six of those who just now made up the parts of the "we," the "you," and the "they" to join us; each of these, as soon as he is opposite the table, points first to himself, having a finger upon "I," next to the one he looks at, and to whom he turns, having a finger upon "thou," and lastly to a third, whom he does not look at and to whom he does not turn, having a finger upon "he:" our student forthwith learns to denominate himself "I," as other people do; and no further difficulty remains.

* * * * *

He must of necessity comprehend us, if not as destitute of intellect as a horse or as a mule; and he will henceforth understand what he writes, when upon the model of the verb "to carry" he is made to conjugate "I draw, thou drawest," etc., "I drag, thou draggest," etc.

Medical Staff.—Dr. Wade is Physician, and Alfred Baker, Esq., is Surgeon to the Birmingham Institution for the Deaf and Dumb.

SOCIAL FACTS, INCLUDING A COMPARISON OF BIRMINGHAM WITH OTHER LARGE TOWNS.

Mr. Bunce, one of the able and energetic editors of the *Birmingham Daily Post*, has recently made a careful analysis of those social facts which refer to the amount of crime in this great manufacturing town. He has been so generous as to place the results of his inquiries at my disposal, and I take this course of placing them before the Medical reader, because they are not only most valuable subjects of general information, but are also, when thoroughly understood, of service as indicating the connexion that exists between crime and disease.

Numbers of the Criminal Classes.

The following abstract by Mr. Bunce shows the numbers of the criminal classes in Birmingham, and in eleven other towns the populations of which are above 100,000:—

	Known Thieves.	Receivers.	Prostitutes.	Suspected Persons.	Vagrants.	Total.
Birmingham .	829	126	527	789	1283	3554
Bristol . .	155	35	403	30	142	774
Liverpool .	369	70	2017	98	348	2892
Manchester .	752	244	1067	528	858	3449
Salford . .	173	65	104	151	10	503
London (City)	61	9	31	35	3	139
Metrop. dist.	2580	234	5550	2020	2713	13,097
Newcastle .	157	28	384	114	341	1024
Bradford .	63	8	129	130	505	835
Leeds . .	289	59	318	296	493	1455
Sheffield .	104	46	131	52	91	424

So far as Birmingham is concerned, this table, as compared with the returns for 1862, shows a decrease of 94 thieves, 65 receivers, 74 suspected persons, and 369 tramps and vagrants, but an increase of 99 prostitutes. The total decrease of the criminal classes is 523. We are, however, by no means satisfied that the numbers of known thieves and that of vagrants are to be relied upon. The returns are evidently not made on the same principle for the whole country, for, while Birmingham with its 300,000 has nearly 1300 vagrants, the Metropolitan district with over 3,000,000 people has only 2700 vagrants. Again, while the 752 "known thieves" of Manchester committed 5957 indictable offences, the 829 "known thieves" in Birmingham committed only 883 offences of this class. Similar discrepancies exist in the comparison of other towns; and it therefore seems evident that the number of known thieves reported is valueless for purposes of comparison. Presently, however, we shall arrive at more solid ground, by taking the number of offences committed, and ascertaining what proportion they bear to the population. By way of completing this branch of the statistics, a return is added of the number of houses of bad character in each of the places above named:—

	Receiving houses.	Public houses, etc.	Brothels.	Tramps' lodgings.	Total.
Birmingham .	127	367	210	235	939
Bristol . .	34	96	172	26	328
Liverpool . .	46	421	765	164	1396
Manchester .	200	272	431	307	1210
Salford . .	39	64	18	21	142
London (City) .	9	45	11	10	75
Metrop. district.	185	403	1314	420	2322
Newcastle. .	29	90	82	62	263
Bradford . .	8	28	54	52	142
Leeds . .	59	151	46	37	293
Sheffield . .	30	50	88	20	188

In Birmingham, Liverpool, Manchester, Salford, London, the Metropolitan district, and Bradford these houses have decreased as compared with 1862. In the other towns there has been a slight increase.

We now come to the offences committed; and following the arrangement of the judicial returns, these are divided into the two great classes of indictable offences and offences summarily decided by the magistrates:—

Indictable Offences.

	Crimes committed.	Proportion to Population.	Apprehended.	Committed for trial. M.	F.
1 Bristol . .	331	1 in 496½	291	138	46
2 Sheffield. .	374	1 in 495	323	157	40
3 Leeds . .	457	1 in 453	400	194	75
4 Newcastle .	302	1 in 361	83	54	6
5 Birmingham .	883	1 in 335¼	600	376	79
6 Bradford .	334	1 in 318	269	100	53
7 Metrop. dist.	12,824	1 in 242	4984	2874	874
8 Salford . .	793	1 in 129	171	80	45
9 Liverpool .	4,490	1 in 98¾	2438	690	437
10 London (City)	1,212	1 in 92½	783	338	46
11 Manchester .	5,957	1 in 57	1736	454	183

In 1862, Birmingham stood fourth in this list, Bristol, Sheffield, and Bradford being superior to it. This year, Bristol takes the highest place, and then come Sheffield, Leeds, and Newcastle. Birmingham has to content itself with the fifth place; and, as in 1862, Manchester holds the lowest rank of all, the indictable offences committed there being in the remarkable proportion of one to every fifty-seven of the population. In regard to the next class of offences—those punishable by summary decision, Manchester somewhat

redeems its character, as will be seen from the following table:—

SUMMARY JURISDICTION.

	Total Charges.	Proportion to Population.	Discharged.	Convicted.
1.—Bradford	1,862	1 in 57	772	987
2.—Salford	1,872	1 in 54½	455	1,164
3.—Metrop. district	83,373	1 in 37¼	36,672	46,801
4.—Sheffield	4,976	1 in 37	855	4,121
5.—Leeds	5,903	1 in 35	2,290	3,163
6.—Manchester	9,907	1 in 34	2,363	7,544
7. Birmingham	9,272	1 in 32	4,862	4,110
7. Bristol	4,788	1 in 32	2,782	2,006
8.—Newcastle	3,638	1 in 30	1,069	2,599
9.—London (City)	7,667	1 in 14½	2,117	5,318
10.—Liverpool	35,384	1 in 12½	15,124	20,260

Birmingham has gone down considerably so far as this table is concerned. In 1862, it stood third in the list, only Bradford and Salford being superior. It is now obliged to divide with Bristol the doubtful honours of the seventh place. The total number of charges in Birmingham in 1862 was 6923; in 1863 the total was 9272. From inquiry at the Police Office we find that the difference is to a large extent accounted for by the assault cases on summons having for the first time been included in the returns. The number of these cases may be estimated from the fact that while in 1862 the assaults were returned as only 813, the return for 1863 amounts to 2248. Such omissions as this should be looked to at the Home Office, for if they occur in the returns from other towns, the laborious work performed by the statistical department may prove to be untrustworthy to a very serious extent. Taking both classes of offences together—indictable and summary, the comparison stands as follows—Birmingham, we regret to say, going down from the third place to the seventh:—

	Offences, indict. and summary.	Total.	Population.	Proportion.
1.—Bradford	334			
,,	1,862	2,196	106,218	1 in 48
2.—Salford	793			
,,	1,872	2,665	102,449	1 in 38½
3.—Sheffield	374			
,,	4,976	5,350	185,172	1 in 34½
4.—Leeds	457			
,,	5,903	6,360	207,165	1 in 32½
5.—Metrop. district	12,824			
,,	83,373	96,197	3,104,923	1 in 32¼
6.—Bristol	331			
,,	4,788	5,119	154,093	1 in 30
7.—Birmingham	883			
,,	9,272	10,155	296,078	1 in 29
8.—Newcastle	302			
,,	3,638	3,940	109,108	1 in 27½
9.—Manchester	5,957			
,,	9,907	15,864	338,772	1 in 21½
10.—London (City)	1,212			
,,	7,667	8,879	112,063	1 in 12½
11.—Liverpool	4,490			
,,	35,384	39,274	443,938	1 in 11

In order to complete the series of tables, a statement is rendered of the more serious classes of offences committed under the head of indictable offences:—

	Burglaries.	Breaking into shops, etc.	Highway Robbery.	Larceny.	Offences against Person.
Birmingham	281	79	14	272	41
Bristol	59	12	2	111	16
Liverpool	90	188	17	3216	416
Manchester	315	404	167	4322	114
Salford	14	37	6	600	13
London (City)	22	27	2	830	13
Metrop. district	333	72	143	9415	562
Newcastle	14	12	6	238	8
Bradford	8	20	6	254	9
Leeds	23	62	20	277	22
Sheffield	27	34	3	230	15

As compared with 1862, this return shows in regard to Birmingham the large increase of 114 burglaries, and an increase of 11 offences against the person. Cases of breaking into shops decreased by 20, and there was a decrease of 16 in the cases of highway robbery, and of 40 in those of larceny. It is a notable and almost inexplicable circumstance that while in Birmingham burglaries increased so largely, in Manchester they decreased in a very marked degree, the number for 1862 being 524 as against 315 for 1863. With one more table, showing the two principal offences disposed of summarily by the magistrates, this series comes to a close:—

	Assaults.	Drunk and Disorderly.
Birmingham	2,248	1,281
Bristol	1,849	672
Liverpool	3,266	13,914
Manchester	2,114	3,206
Salford	384	590
London (City)	358	309
Metropolitan district	17,034	18,789
Newcastle	875	978
Bradford	633	153
Leeds	1,668	1,584
Sheffield	840	1,025

The return for Birmingham in 1862 was—Assaults, 813; drunken cases, 1226. The latter, it will be seen, have increased very slightly; the great increase in the former is accounted for by the cases heard on summonses being included for the first time."

THE GAOL.—POLICE.

The Gaol, the Asylum, the Workhouse, and the Hospital for the sick are the four estates of crime in our large towns. According to my observation, it may be stated that, in point of sanitary condition, the Gaol and the Asylum always hold the first place. In Birmingham, certainly, this rule is strikingly presented. I have described the Asylum, and, turning to the Gaol, I may fairly say that, for purity of atmosphere, for perfect cleanliness, and for order, it is unexceptionable. The Gaol was built in 1848, at a cost of £50,000. It is constructed of brick, and will contain 350 prisoners. The amount of sickness is at a minimum, and epidemic disorders are almost unknown. Dr. Alfred Hill is the Surgeon.

The number of police in the Borough is 377, and the total cost of the force is £25,289; towards which the Government supplies the sum of £5508, according to the returns for the *current* year.

I had hoped this week to have completed the Medical History of Birmingham, but as there still lie before me for description the sanitary state of the town, the Medical schools and museums, the Medical libraries, and the Medical biography, I must even crave patience for one chapter more.

REVIEWS.

Entoptics; with its uses in Physiology and Medicine. By JAMES JAGO, M.D. Oxon., A.B. Cantab., Physician to the Cornwall General Infirmary and to the Truro Dispensary. London: Churchill and Sons. 1864. Pp. 188.

IF it were only that this book opens up a field of entertaining research and unveils some curiosities in optics, we should recommend its perusal. But it has a higher aim than rational entertainment, since its object is to point out what may, under certain conditions, be discovered by the eye itself as to its own internal structure. This is entoptics; and its scientific importance to the anatomist is this—that it is available "for the solution of certain points of ocular structure of too delicate a nature for the microscope or other usual means of investigation," and to the physiologist "for determining important questions of function." But besides this, it is important to the pathologist, inasmuch as it offers an explanation of accidental phenomena of vision which, under the ordinary designation of "muscæ," are often a source of anxiety, more or less, in accordance with individual temperament; and such as, occurring in patients of failing health, is apt to impede their recovery. "In retaining the term *muscæ volitantes* in the vocabulary of symptoms, it is of great moment that we should be able to discriminate between pathological and physiological ones. In times past, the images just discussed—an accident of the essential structure of all human eyes—have oftener been called by that name than images of morbid products in the eye or morbid impression upon some portion of the nervous system."—P. 107.

In order further to commend the book to our readers, we may say that we have ourselves repeated the experiments

which Dr. Jago details, and have not only experienced much delight from doing so, but are thus enabled to testify to the general accuracy of the pictorial representations with which the book abounds. The whole thing is very easy, and the apparatus necessary for entoptical inquirers so simple that a few minutes suffice to place any one in possession of it. All that we mostly require is a minute ray of light which shall throw upon the retina a shadow of the objects which it meets with in its passage through the eyeball. There is an advantage in possessing two such pencils of rays, one being divergent and the other convergent. "The diffused light of day, from the sky, clouds, smooth sheet of water, white road or wall of a house, admitted into the eye through a fine puncture in a thick or black card, gives a good divergent pencil; though the convergent one, in this instance, lying in front of the puncture, is not available. Nevertheless, with light issuing from small luminous disks, we can readily command all such pencils as we need. We may, by means of the head of a pin or the surface of a convex lens, reflect into the eye, from the sun or a candle flame, very fine divergent pencils; or by rendering the rays from a small distant flame still more divergent, by allowing them to pass through a concave lens before entering the eye we may command a very efficient pencil of this kind, or we may use the image of the disk formed in the focus of a lens of short focal length for this purpose. If we look through a convex lens of an inch focal length towards a gas or lamp flame, remotely (as at the length of a long room) situated so that the image may be formed at or near the principal focus of the lens, that there may be yielded a rapidly convergent and therefrom divergent pencil, the eye may receive to more than half its depth, far enough for all practical purposes, a divergent or convergent pencil at pleasure. By approaching the disk we can introduce the focus deeper into the eye. In a word, we may consider ourselves equipped for the major part of our researches, if we are provided with an object-glass of a microscope of an inch focus. By fitting the holes in which the glass is fixed into another of card paper, we can slide one within the other so as to introduce the focus any *measured* distance into the eye." —P. 19. But our readers need not even take this trouble. Just let them look steadily through a minute puncture in a blackened card for a quarter of an hour, and they will have seen enough to create a curiosity as to what the objects they have viewed are, and what they indicate—a curiosity which they will forthwith endeavour to satisfy by means of Dr. Jago's interesting little volume. They will see—what they will see; for a man that will not take the trouble to look through a little hole that he can make as he reads this is not worthy of another word, and the man that will do so does not need it.

On the Variations of the Fertility and Fecundity of Women according to Age. By J. Matthews Duncan. (From the *Transactions* of the Royal Society of Edinburgh.) Edinburgh: Niell and Co. 1864. Pp. 16.

"In 1855, when the systematic registration of births in Scotland was established, the schedule used exacted from the public a variety of interesting details in connexion with each return—a circumstance which gives to the registers for that year an extraordinary value." From these registers Dr. J. M. Duncan has extracted the data for the communication the title of which we give above. He draws a distinction between fertility and fecundity. "By fertility, or productiveness, I mean the amount of births as distinguished from the capability to bear." "By fecundity, I mean the capability to bear children; it is measured by the number born, and it implies the conditions necessary for conception in the woman of whom its variations are predicated." As the question of fertility is chiefly interesting to the political economist, so that of fecundity is to the physiologist and Physician. We shall simply extract from the paper the conclusions of the author upon these two very interesting subjects. First, as to "*the actual fertility of our female population as a whole at different ages*," he concludes,—"1. That it increases from the commencement of the child-bearing period of life, until the age of 30 is reached, and then declines to its extinction with the child-bearing faculty. 2. That the actual fertility is much greater before the climax—thirty years—is reached, than after it is passed. 3. That at least three-fifths of the population are recruited from women not exceeding 30 years of age." Secondly, as to "*the comparative fertility of the female population as a whole at different ages*," he finds,—"1. That it increases gradually from the commencement of the child-bearing period of life until about the age of 30 years is reached, and that then it still more gradually declines. 2. That it is greater in the decade of years following the climax of above 30 years of age than in the decade of years preceding the climax." In discussing the question of "fecundity," he necessarily confines his inquiries to married females, comparing, not, as in the former question, mothers with women living, but wives-mothers with wives. As respects, then,—First, "*the comparative fecundity of the whole wives in our population at different ages*," he concludes,—"1. That it is greater at the commencement of the child-bearing period of life, and after that epoch gradually diminishes. 2. That the fecundity of the whole wives in our population included within the child-bearing period of life is, before 30 years of age is reached, more than twice as great as it is after that period. 3. That the fecundity of the wives in our population declines with great rapidity after the age of 40 is reached." Secondly, as respects "*the initial fecundity of women at different ages*," he furnishes a number of very interesting tables, showing the initial fecundity of women at different ages in the first year and in the first two years of marriage, and from these data concludes as follows:—"1. That it gradually waxes to a climax, and then gradually wanes. 2. That the initial fecundity is very high from 20 to 34 years of age. 3. That the climax of initial fecundity is probably about the age of 25 years." A further result of Dr. Duncan's observations is, that "the mass of younger women are not only more fecund at the outset of child-bearing, but after that time is past they continue more fecund than older women who have been married the same number of years." The original paper, of which we thus present an abstract, is worthy of study.

Delineations of the Brain in Relation to Voluntary Motion. By Joseph Swan. London: Bradbury and Evans. 1864. Pp. 65.

This is scarcely a book to be reviewed at length. It is absolutely what it professes to be—"a series of drawings proper for showing the motive centres in the brain and the back leading to their respective nerves." There are eighteen plates beautifully executed in lithography of dissections of hardened brain, most of them the size of nature, accompanied by descriptive letterpress, and the whole preceded by a brief anatomical and physiological treatise on the subject to which they relate. The volume altogether is well worthy of Mr. Swan's reputation as a laborious, painstaking, and accurate anatomist, and certainly is not the least valuable of his contributions to the science which he has espoused. It is a book which will find its place among standard works in every public library, and, from the importance of the subject to the Physician, we should hope also upon the shelves of the majority of Practitioners. It is not to be expected that all to whom this sort of information is of practical value should for themselves undergo the labour of such minute dissections as Mr. Swan has performed; but all may study his drawings, which he has evidently taken every means in his power to render clear and instructive.

A Treatise on Human Physiology; designed for the Use of Students and Practitioners of Medicine. By John C. Dalton, jun., M.D., Professor of Physiology and Microscopic Anatomy in the College of Physicians and Surgeons, New York, etc. Third Edition. With 273 Illustrations. Philadelphia: Blanchard and Son. 1864.

The first edition of this work appeared in 1859. That it has been accepted by the Profession in America is sufficiently testified by the fact that, by the close of the fifth year from its publication, a third edition has been requisite. This fact in itself absolves us from the necessity of much comment on the volume. But we may say this, that it appears to contain all that is most firmly established as physiological truth, and that what we observe to be omitted chiefly consists of observations the accuracy of which has been challenged, or opinions which have yet to obtain the sanction which time alone confers. The illustrations are well executed, and are sharp and diagramatic, as we hold they ought to be in an elementary work which it is intended to place in the hands of beginners. Such appeals to the senses, even if wanting in precise accuracy of delineation, yet if they illustrate distinctly what the writer desires to impress, and are, in the main, correct representations, are of infinite value in assisting the student to lay hold upon many points which he would otherwise be apt to fail in apprehending. We think that a book like this is about the best that a

student could read during the first year of his curriculum. It would serve as an excellent introduction to the more extended works which he must subsequently become familiar with. The art of writing for students, as of oral teaching, is not possessed by everybody, and often least of all by those whose knowledge of their subject is most extensive and minute.

Glaucoma, and its Cure by Iridectomy; being Four Lectures delivered at the Middlesex Hospital. By J. Soelberg Wells, Ophthalmic Surgeon to, and Lecturer on Ophthalmic Surgery at, the Hospital. Churchill and Sons.

The operation of iridectomy for the cure of glaucoma, as devised by Professor Von Graefe, and introduced into this country by Mr. Bowman, has excited an amount of discussion and elicited a display of feeling which shows, at all events, that the importance of the question is thoroughly recognised. The conclusion, apparently from exhaustion, of a somewhat lively controversy on the subject in the pages of a contemporary has appeared to Mr. Wells to be a fair opportunity to lay before the professional public a summary of the most modern and generally accepted doctrines on the nature, the pathology, and the treatment of this very intractable disease. No one is more capable than Mr. Wells of doing justice to the subject, and we may say at once that he has handled it with the clearness, moderation, and ability which characterise all his writings on ophthalmic topics. He is a strong advocate for iridectomy in suitable cases, his experience coinciding with that of, we believe, the immense majority of those who have actually performed the operation.

The first three lectures are mainly devoted to a description of glaucoma in its varying form and stages. He divides cases of glaucoma into two principal classes—I. Cases attended with inflammatory symptoms; II. Cases in which there are *apparently* no inflammatory symptoms present. He recognises four stages—1. A premonitory stage; 2. A stage in which the glaucoma is fully developed; 3. A stage in which quantitative perception of light has been completely lost for some time; 4. A stage in which the eye undergoes glaucomatous degeneration. Each of these stages is carefully described; the various symptoms have their relative value assigned to them; the great importance of appreciating the degree of tension is pointed out, Mr. Bowman's system of notation being adopted; and a ready method of mapping out the extent of the field of vision is suggested. The pathology of the disease is discussed in the third lecture, the views of Von Graefe, Hulke, and others as to its essentially inflammatory character being preferred to those of Donders, who believes that inflammation is not the integral part of the glaucomatous process, but only a complication. The last lecture contains the prognosis of the disease, and of the beneficial effects of iridectomy in its various stages. And here the great importance of operating early, before irreparable structural mischief has taken place, is strongly insisted on. The operation is most successful in the premonitory and very early stages. It is a mistake on the part of the opponents of iridectomy to suppose that its advocates claim for it the power of restoring vision to a disorganised eye. The book concludes with a minute description of the mode of performing the operation, rendered still more clear by several well-executed wood-cuts.

We cannot too strongly recommend this little work to the careful study of our readers. It contains in small compass, and in clear, well-selected language, all that it is absolutely necessary to know on this very important subject.

The Report of the House of Commons Committee on the Utilisation of Sewage.—This Report fully bears out all we have ever advanced on the necessity and possibility of using the sewage of towns for the purpose of manure. It can scarcely be shelved, and there is now some hope that the black floods carried down to Barking Creek and Erith by the Metropolitan tunnels may be stopped short of the Thames.

Queen's College, Birmingham.—At a recent meeting of the Professors of the College the following recommendations of gentlemen to vacant chairs were made to the Principal and Council:—Mr. Lloyd to the chair of Practical Anatomy, vacant by the appointment of Dr. Foster to the chair of Descriptive Anatomy; Dr. Norris to the chair of Physiology, vacant by the appointment of Professor Lawson to the chair of Physiology at St. Mary's Hospital. The Professors also recommend that the chair of Medicine and the office of Physician to the Queen's Hospital, both of which are now vacant, should be combined.

GENERAL CORRESPONDENCE.

SCURVY IN THE MERCHANT SERVICE.

Letter from Dr. Fleetwood Buckle.

[To the Editor of the Medical Times and Gazette.]

Sir,—In reference to your article in last week's edition "On Scurvy in the Merchant Service," the following case may be of interest:—The ship *Blank*, 756 tons, sailed from London for Hongkong in the spring of 1861, with a crew of seventeen hands, all told. Lime-juice was regularly served out to all alike, yet when the ship had been at sea some three months scurvy broke out, and before the end of the voyage every soul on board was more or less affected, except the second officer, a young man of 20, who had been taking small doses of Liq. potassæ for an affection of the stomach. He alone remained free. Supposing this lime-juice to have been adulterated as described in the anonymous letter to the *Times* of August 29, does not this case prove that the salts of potash are the true antiscorbutic agents? I am, &c.

Fleetwood Buckle, M.D., L.R.C.P. Lond.

King's Lynn, September 6.

CASE OF PLACENTA PRÆVIA TREATED BY EXTERNAL VERSION.

Letter from Mr. Thomas Joyce.

[To the Editor of the Medical Times and Gazette.]

Sir,—The recent discussion at the Obstetrical Society may, perhaps, render the following case of placenta prævia treated by "the combined version," of some interest to your readers:

On the 12th inst., at 3 a.m., I was asked by a friend to see with him the case of Mrs. A., seven and a-half months advanced in pregnancy. At 6 p.m. on the previous day she had had a sudden hæmorrhage, which continued with hardly any pains up to the time I saw her. I found her blanched, with a steady pulse, the uterus not acting. Upon examination the os was high up, dilated to about the size of a florin, completely covered by the placenta. I was unable to make out what part of the child presented, but upon introducing two fingers of my left hand, I recognised the head anteriorly, and as upon an external examination my friend and I agreed we could feel the breech on the left side, we concluded the child was in the first position.

The uterus being high up, I introduced my left hand into the vagina, then, with two fingers inside the os, I detached the placenta anteriorly. I could then reach the forehead of the child, which I pressed upwards and forwards simultaneously with my right hand, pressing the breech over to the right side. I soon found the head rise in the uterus, and after a little more manipulation at the breech I was able to feel the head above the pubes externally; I then, with my right hand, manipulated the head upwards, and was soon able to feel a foot. I next endeavoured to rupture the membranes, but they were so lax, there being no uterine action, that I could not succeed, but I was able to get hold of a foot and bring it down about two inches into the vagina without rupturing the membranes; I then tore them with my fingers and brought the foot down to the orifice of the vagina.

We kept up sufficient traction of the foot to keep the breech firmly applied over the os, there being now no hæmorrhage, and the uterus not acting, we resolved to give a dose of secale and wait for uterine action. It commenced soon after, and the child was expelled about an hour after version, the liquor amnii not escaping until the head entered the vagina. There was no further hæmorrhage, and the placenta came away without any difficulty; the woman has since had no bad symptom, and is progressing very favourably. The child made some feeble attempts at respiration for an hour after birth and then died.

This case affords an illustration of the great value of Dr. Hicks' new mode of version, especially in cases of placenta prævia, for there can be no question as to the importance of being able to complete version, and even in this case to bring a foot down into the vagina without rupturing the membranes or forcibly dilating the os, and by bringing the breech down we were enabled by a slight traction of the foot to restrain all further hæmorrhage. I am, &c.

Thomas Joyce.

1, Berkeley-gardens, Campden-hill, Kensington.

THE MEDICAL PROVIDENT FUND.

Letter from Mr. R. B. Carter.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have addressed the enclosed letter to the many gentlemen with whom I was in communication last year on the subject of the Provident Fund. I send copies to your contemporaries, and beg leave to place one at your disposal also.

I am, &c., R. B. Carter.

Stroud, Sept. 4.

"Stroud, Gloucestershire, Sept. 1, 1864.

"Dear Sir,—The time has at length arrived at which I can make to you a definite report on the subject of the proposed Medical Provident Fund.

"In the summer of 1863, I had already obtained the necessary statistical information, and hoped to see the fund speedily established, when I was informed that Dr. Richardson, at the annual meeting of the British Medical Association, was about to move for a Committee to inquire into the whole subject. In consequence, I attended the meeting at Bristol, and my name was added to the list of the proposed Committee, which was directed to report to the next meeting of the Association at Cambridge.

"Feeling sure that affiliation to the British Medical Association would be highly beneficial to the Provident Fund, and feeling also that the report of the Committee would deservedly carry far more weight than the labours of any individual, I willingly ceased from independent action in the matter, and gave all the assistance in my power to the framing of the Committee's report. With that report I am well satisfied in all respects but one; with regard to which I appended my individual protest against the views of my colleagues. The report and protest have been published in the Medical journals, and have doubtless already fallen under your notice.

"The report was adopted by the Association; and Dr. Richardson was appointed Chairman by the vote of the annual meeting. At an early meeting of the Committee of Council, the Council Directorate will be chosen, and the various branches will be called upon to elect their directors. When this is done, the Board will be fully constituted; and will be in a position to admit members, with a view to the commencement of sick payments in July, 1865.

"The first duty of the Board, however, will be to decide points left open by the report, and consequently left open by the vote of the annual meeting. First among these questions will be the subject of my protest—namely, Shall the Provident Fund be open to all members of the Profession, or shall it be limited to members of the British Medical Association?

"The majority of the Committee, who were and are in favour of the limitation, regarded the matter from an Association point of view. I mean that they are old members of the Association; that they have laboured for it in various ways for many years; that they are proud of its progress and hopeful of its future. They think that it will become an important political engine for the elevation of the Profession, and a power that the Circumlocution Office will not be able to ignore. They think that the Provident Fund will strengthen the Association; and they therefore welcome it for the sake of the Association rather than for the sake of the men who will chiefly need its help. I, on the other hand, and those who think with me, while we should rejoice to see the most sanguine anticipations of the friends of the Association realised, yet feel that there are many Practitioners whom sickness would render destitute. There are men of small capital striving to establish themselves; there are qualified assistants who aid in maintaining widowed mothers or younger brothers and sisters; and there are established Practitioners who, from local circumstances, are almost precluded from earning incomes sufficient for their needs. I conceive that it would be an act of cruelty to call upon such men to subscribe an annual guinea to the British Medical Association before admitting them to become members of the Provident Fund.

"But as many of my colleagues in the Committee differ from me, and think that such a call ought to be made, I am tempted to ask what return the guinea will bring. The political and other anticipated benefits are not yet realised. The meetings, and speeches, and dinners are necessarily limited to men in comparatively easy circumstances; and the less affluent members receive for their subscription only a copy of that journal upon which about ten-elevenths of the income of the Association are expended, and which must always, from the operation of commercial laws, be inferior to its contemporaries that are maintained by private enterprise. The present deplorable position of the Journal, and its recent advocacy of superficial attainments and of trading greed, although they cast some reflected discredit upon the Association, are yet mere accidents, due to causes that are temporary, or, at least, that admit of being removed. Still the fact that such accidents are possible, that they have occurred, and may recur, increases the hardship of asking any man to pay for a publication that may offend his taste and judgment in every number, and that he cannot discontinue without forfeiting his right to obtain provision during sickness.

"I apprehend, however, that the organisation of the Association, apart from the Journal, would be of great value to the Provident Fund, and I think that the subscribers to the fund should be prepared to pay for the use of that organisation. I would suggest, therefore, that every subscriber to the Provident Fund should contribute two shillings a-year to the executive expenses of the Association generally—that being rather more than the proportion of the ordinary subscription that is not absorbed by the Journal—and that the Board of Directors should be applied to, as soon as formed, to admit subscribers upon such a basis.

"That such a proposal may be acceded to, those who are in favour of it must bestir themselves. They must endeavour to procure the election, by the branches in their respective neighbourhoods, of directors who will support it at the Board; and they must seek to obtain the names of Practitioners who wish for admission on the terms proposed. I should like the directors to consider the question of limitation under the pressure of 200 or more applications from gentlemen who are not members of the Association, and who are prepared, in the event of being refused, to establish a separate fund of their own. From all such I shall be most happy to receive communications.

"I have observed in the journals some letters criticising the report of the Committee, and suggesting various improvements. To all these letters there is one reply. The suggestions of the writers are usually practicable—at an increased rate of subscription. There is no reason why the Provident Fund should not extend its operations in many ways, but it is best to begin cautiously, and to wait for experience before attempting too much. "I am, dear Sir,

"Yours very faithfully,

"Robert Brudenell Carter, F.R.C.S."

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, September 1, 1864:—

Benjamin Lamb Powne, Billingboro', Lincolnshire; William Samuel Britton, Acacia-road, St. John's-wood; Thos. Greville Thursfield, Broseley, Salop; Chas. John Grellet, 7, Lloyd-street, Lloyd-square; David Hughes, Charing-cross Hospital; Sykes Bramhall, Clifton; William Foster Vise, Spalding, Lincolnshire; James Hickenbotham, Birmingham.

The following gentlemen, also on the same day, passed their First Examination:—

Henry Cripps Rogers, St. Bartholomew's Hospital; Arthur Henry Pitcher, St. Thomas's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Brook, Charles, M.R.C.S. Eng., has been appointed Surgeon to the Lincoln County Hospital.

Gayton, Wm, L.R.C.P. Edin., has been appointed to the No. 4 District of St. Matthew's, Bethnal-green.

Hawthorn, F. J., M.R.C.S. Eng., has been elected House-Surgeon to the Poplar Hospital.

Heckford, Nathaniel, M.R.C.S. Eng., has been appointed Resident Medical Officer to the Metropolitan Free Hospital, Devonshire-square.

Parry, Evan, M.R.C.S, Eng., has been elected Medical Officer for the Crickhowel Union Workhouse.

Rae, Matthew J., M.D. Glasg., has been appointed Physician to the Infirmary, Blackburn, Lancashire.

Soper, Robert W., M.R.C.S. Eng., has been appointed Assistant House-Surgeon to the General Infirmary, Sheffield.

DEATHS.

Bernard, Charles Edward, M.D. Aberd., at Weston-super-Mare, on August 21, aged 54.

Palmer, Henry T. T., at Woodstock, Oxfordshire, on August 21, aged 64.

Robertson, William, M.R.C.S. Eng., at Fochabers, Morayshire, on August 17, aged 57.

APPOINTED to the Army of Paraguay on the nomination of Professor Laycock:—*Surgeon*—James Rhind, M.D. Edin. *Assistant-Surgeons*—James Wilson, M.D. Edin.; William M. Banks, M.D. Edin.

THE EX-SURGEON-GENERAL OF THE FEDERAL ARMY.—A telegraphic message in the *Times* of September 3 contains the following:—"Ex-Surgeon-General Hammond has been found guilty by a court-martial at Washington of the grossest frauds and peculation while in office in the matter of supplies for the sick and wounded soldiers, and declared for ever disqualified to again hold office under the Government." In the absence of all information as to the evidence brought forward at the court-martial, we abstain from comment.

MUNIFICENCE.—The funds of the Stafford Infirmary and the Northern Dispensary, Euston-square, have been augmented by the munificent sums of £200 each, bequeathed to these institutions free of legacy duty by William Salt, Esq., of Park-square, Regent's-park, the well-known banker of Lombard-street.

ARMAMENTARIUM CHIRURGICUM.—The Academy of Medicine of St. Petersburg has just received a very interesting addition to its museum, the donation of Dr. Bonialsky, who commemorated his fiftieth anniversary of service in the Russian army by presenting to the museum his valuable collection of Surgical instruments, formed with skill and perseverance during half a century, and containing more than 3000 objects. The whole forms a remarkable museum, where the progress made during the present century in Surgery can be studied with advantage.

TRICHINOSIS IN NEW YORK.—Dr. Krombein reports that this disease has been met with in the western part of the State of New York. On examining portions of the muscles of some patients who died of what seemed to be an anomalous form of rheumatic fever, he found in them numerous trichinæ. In cases occurring to other Practitioners, the trichinæ were also found, as well as in the sausages which had been eaten. In the muscles the parasites were free; in the sausage, encysted. —*American Jour. Med. Science*, July.

JUBILEE BANQUET TO WILLIAM TURNBULL, ESQ., M.D., OF HUDDERSFIELD.—The members of the Medical Profession of Huddersfield, supported by several of the leading inhabitants of the neighbourhood, and by gentlemen from a distance, assembled at a sumptuous banquet, at the George Hotel, on Wednesday, August 31, to do honour to their esteemed and venerable fellow-townsman, Dr. Turnbull, on the occasion of his having attained his fiftieth year of active practice in that town. The assembly was presided over by Mr. J. T. Bradshaw, surgeon, of Huddersfield; and the vice-chair was occupied by Mr. G. W. Rhodes, of Huddersfield, Surgeon, by whom the testimonial had been actively promoted. Our space will not permit us to publish a full report of the proceedings, but we extract the following from the chairman's speech, in proposing Dr. Turnbull's health:—"You are all aware that we are assembled on the present occasion to celebrate the fiftieth anniversary of the coming to this town of our worthy senior Physician, Dr. Turnbull. Gentlemen, fifty years have elapsed since that occurrence, and what a number of changes must have been witnessed by the Doctor during that time, both in the aspect of the town and district, and amongst our Medical men. I believe there are very few at present in existence who were living when he first came here. After fifty years' active service, we should naturally imagine that time and age and infirmities would have made some inroads into the Doctor's constitution. But no! He is both mentally and bodily as active, I believe, as he was twenty years ago. I believe he would kill many a young one yet. There is another virtue which the Doctor possesses—he always keeps his engagements. His punctuality is proverbial. For the last twenty-three or twenty-four—ay, for the last thirty years—if I have wanted the Doctor, I have merely had to go to the Infirmary between eight and nine o'clock, and in nineteen cases out of twenty I have been sure to find him there, prescribing for the objects of your benevolence who are the in-patients of the Infirmary, and whose cases require the continued *surveillance* of the Medical gentlemen. On Monday mornings at seven o'clock may the Doctor even at the present time be seen wending his way towards the Infirmary, where he is engaged from one to two, and even to three o'clock, attending to the cases of the numerous out-patients who come to see him, alleviating their wants and prescribing for their complaints. Gentlemen, after fifty years' service in such charitable deeds, ought we not to think highly of the man? and I do hope that he will not only now, but in all future time, be esteemed as he deserves to be beyond the majority of his fellow-men. How he stands with regard to his Medical brethren this present assembly testifies. Upwards of forty Medical gentlemen have come from various parts of the country—two of them from Manchester—in order to do honour to the Doctor, and with regard to the gentlemen of the district who have honoured us with their company, we are extremely obliged to them, for they have added a zest to the meeting which has been peculiarly acceptable."

DELIRIUM TREMENS A CONSERVATIVE SURGEON.—Our readers may derive some amusement, during this dull season, from the following reading of the surgical practice at one of our London hospitals. Mr. Cole, proprietor of a public-house, brought an action against a man for savagely assaulting him, on his turning the man, who was drunken and riotous, out of his tavern. Mr. Bowater John Vernon, house surgeon at St. Bartholomew's Hospital, said, about eleven o'clock on the night of the 7th of May the prosecutor was brought to the hospital. His left leg was broken in two places below the knee. Both bones were broken, and the whole leg was very much bruised. Mr. Cole was quite sober. For some days after he was very ill, and for a week his life was in danger. He remained in bed in the hospital until the 15th of July, and then he was discharged a cripple. He was for a portion of the time suffering under delirium tremens. It would be some time before he would recover, and one leg would be shorter than the other for the rest of his life. In cross-examination by Mr. Collins he said that the broken leg would still be a very useful one, but it would always be a little shorter than the other. The prosecutor had delirium tremens, and but for this his leg would have been amputated. Mr. Collins: Then it was a very good thing for him that he had delirium tremens, as it saved his leg? Mr. Vernon: In his case it did, for if he had not had it his leg would have been amputated. —Then delirium tremens saved his leg? Had he not have had it, his leg would have been cut off?—Most probably his leg would have been cut off.—Then do you cut off people's legs if they do not happen to have delirium tremens?—We should have endeavoured to save the man's life by cutting off his leg. Mr. Collins said in such a case he would advise persons who might have a broken leg never to go to St. Bartholomew's Hospital, or they would have it cut off, unless they had got delirium tremens. This was the case for the prosecution. Mr. Collins, for the prisoner, said it appeared, according to the evidence of the surgeon of St. Bartholomew's Hospital, he would have cut off the leg of the prosecutor, therefore it was fortunate for him that he had that dreadful malady. Under such circumstances, the learned counsel would advise people to be very shy in putting themselves under the care of this surgeon of St. Bartholomew's Hospital if they had a broken leg, and unfortunately did not have delirium tremens. Mr. Collins' remarks on the house surgeon's evidence are ingenious, and not unfair as from the counsel for the defence.

THE HOSPITAL CONVENTION.—The International Congress, which has been sitting at Geneva with a view to regulate the position of Hospitals and wounded in time of war, has terminated its labours. Ten resolutions have been adopted and signed, under reserve of ratification, by the representatives of Belgium, Baden, Denmark, Spain, France, Hesse, Italy, the Netherlands, Portugal, Prussia, Switzerland, and Würtemburg. The resolutions differ considerably from the programme first issued; they are as follows:—

"Art. 1. Ambulances and Military Hospitals are regarded as neutral, and, as such, protected and respected by the belligerents (as long as they contain sick or wounded). The neutrality would cease should such Hospitals have a military guard.

"Art. 2. All *employés* of the Hospital, including the almoners, carriers of the wounded, etc., will enjoy the benefits of this neutrality as long as there are wounded to be attended to.

"Art. 3. The persons designated in the above article may, even after occupation by the enemy, continue to perform their duties in the Hospital or ambulance to which they may be attached, or withdraw to join the division to which they may belong.

"Under these circumstances, when their functions shall have ceased they will be escorted to the enemy's outposts by the army in occupation.

"Art. 4. As the *matériel* of military Hospitals comes under martial law, the persons attached to those Hospitals may not, on leaving, take away with them anything except what is their own personal property.

"Under the same circumstances, however, an ambulance preserves its *matériel*.

"Art. 5. Inhabitants of the country who give help to the wounded are respected and remain free. The generals of the belligerent Powers are called upon to forewarn the inhabitants of the call made upon their humanity, and of the neutrality consequent thereupon.

"Any wounded man taken into a house will be its safeguard. Any inhabitant who has taken in the wounded will not be billeted upon or submitted to war contributions.

"Art. 6. The wounded or sick are taken care of, no matter to what nation they belong.

"Those will be sent back to their homes, who, after being cured, are deemed incapable of further service.

"The others may also be sent home, but on the conditions of not resuming arms during the war.

"The escorts on this service are to be respected as neutrals.

"The Commanders-in-Chief have the power to hand over to the enemy's outposts the wounded during the combat when circumstances permit it, and with the consent of both parties.

"Art. 7. A distinct flag and uniform is adopted for the Hospitals, ambulances, and escorts. On all occasions the national flag must accompany it.

"A badge may also be allowed to denote a neutral, to be granted only by the military authorities.

"The flag and badge will bear a red cross on a white ground.

"Art. 8. The general details of these regulations will be settled by the commanding officers of the belligerent Powers, according to the instructions from their Governments."

Article 9 calls the attention of other Governments to this Convention, inviting them to join it. Article 10 states that the ratification of the Convention is to take place at Berne within four months, and earlier if possible.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

E. R. B.—Consult your family Medical adviser on the subject.

Native Use of the Calabar Bean.—The following is an extract from a letter by the Rev. W. C. Thompson, formerly Missionary to Calabar, published in the *Liverpool Mercury* of August 20, 1864 :—

"The Calabar bean as an ordeal is given in various quantities—from below a dozen to over a hundred—but a very small portion—less than half—of a bean is sufficient to destroy life, while, on the other hand, entire dozens of the bean have been taken with impunity, being quickly rejected by the stomach and bowels. One being halved between a brace of infatuated duellists has cut both off, and a woman who was tried for witchcraft some years ago, and who must have taken some dozens in the process, was still living, and in vigorous health, last year. When used by duellists it is customary for the challenger to bite a bean in two, consume his half, and hand the other to his opponent, who is obliged to eat it up. This is said to be a common thing among the Ibebios. When it is administered in public trial, the accused is compelled to eat up a few beans just as you see them, while others were being pounded to pulp in his presence. This is afterwards well mixed with water, and one part of the mixture given as a drink, and the other administered in the form of an enema. If the poison so irritates stomach and bowels as to be completely ejected, which is often the case, the party escapes and is pronounced innocent; if not he dies, and is therefore guilty. The plant grows to a large size, one plant climbing sometimes over several trees, and almost entirely enveloping them in its foliage. It is often to be met with on the banks of the Calabar river. The flower is not unlike that of the sweet pea."

Poor-law Medical Relief.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I shall feel obliged by your giving insertion to the following correspondence, which will inform the Poor-law Medical officers that there is a prospect of some relief being yet afforded them; whether that relief will be of a substantial character or not, time will disclose. A liberal measure on the part of the Poor-law Board may tend to allay much of the present dissatisfaction which prevails amongst their Medical officers; the reverse will most certainly drive us to lay our grievances before the House of Commons next session, and woe betide those members at the general election who turn a deaf ear to our complaints. I have votes in two counties and a borough, and it is my intention to give my support to those six members only who will promise their aid to an equitable adjustment of the system of Poor-law Medical relief. If all the Medical men would do the same the grievances of the Poor-law Medical officers would quickly vanish. I am, &c.

12, Royal-terrace, Weymouth, September 3. RICHARD GRIFFIN.

"12, Royal-terrace, Weymouth, August 22, 1864.

"MY LORDS AND GENTLEMEN,—On the 11th of last March the Select Committee on Poor Relief recommended 'that in future cod-liver oil, quinine, and other expensive medicines shall be provided at the expense of the Guardians, subject to the orders and regulations of the Poor-law Board.' As some months have elapsed since the recommendation was made, I take the liberty to ask the favour of your informing me if it is your intention to issue any order on the subject, or whether you propose to bring the recommendation of the Committee before Parliament next session. I make this inquiry on public grounds, as many Poor-law Medical officers have written to me respecting the recommendation.

"I have the honour to be, my Lords and Gentlemen,

"Your obedient servant,

"The Poor-law Board." "RICHARD GRIFFIN.

"Poor-law Board, Whitehall, September 2, 1864.

"SIR,—I am directed by the Poor-law Board to acknowledge the receipt of your letter of the 22nd ultimo, and to inform you that the subject to which you refer has been under their consideration; but that they have not yet come to a decision as to the measures which it may be desirable to recommend the Guardians of the different unions to take with reference to the resolution of the Select Committee on Poor Relief as regards the supply of expensive medicines.

"The question, however, will receive the attention of the Board forthwith. "I am, Sir, your obedient servant,

"H. FLEMING, Secretary.

"Richard Griffin, Esq., 12, Royal-terrace, Weymouth."

Oxalate of Cerium and Compound Tincture of Valerian in Sea Sickness.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The value of the above combination in sea sickness is worthy a trial, I having found it remarkably successful; two grains of the former and one drachm of the latter invariably gives great relief. I have given a fair trial to the usual remedies, and find the above successful in most cases, more especially with females, whose sufferings are often very distressing. It may be administered at intervals of thirty minutes, few cases requiring a third dose. I am, &c.,

CHAS. H. WALSH, Surgeon Steamship "*Iowa.*"

The St. Andrews' Degree.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—There is something so "waspish" about Mr. D. P. Morris's last letter in your journal that it would seem to be only a righteous judgment if a number of the bees of St. Andrews' hive were to set upon and sting him according to his true desert. To make charges of bumptiousness, and resort to abuse where argument fails is a line of conduct that is, happily, now-a-days, valued at what it is worth; and I would suggest to Mr. Morris that the next time he favours us with an onslaught he should be prepared to prove his allegation that St. Andrews is not a *bonâ fide* University, and also to tell us when "his time at Edinburgh" really was, in order that we may endeavour to satisfy ourselves of the truth of his statement that "no man of good reputation did at that period venture on the degree." I am, &c.

September 6. W. F. CLEVELAND, M.D.

The Griffin Testimonial Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following subscriptions have been further received on behalf of the above fund :—

George May, Esq., Reading, 5s.; W. H. Moxhay, Esq., Reading, 5s.; I. Harrison, Esq., Reading, 10s.; J. W. Workman, Esq., Reading, 10s.; T. L. Walford, Esq., Reading, 5s.; F. Workman, Esq., Reading, 5s.; W. B. Young, Esq., Reading, £1 1s.; Jas. Taylor, Esq., Wargrave, 10s. 6d.; Joseph Hinton, Esq., Bath, 10s. Amount previously announced, £57 1s.; received at the *Lancet* office, £3 11s.

Erratum in last impression—Read "E. Richardson, Esq., 10s. 6d.," instead of "10s." I am, &c.

ROBERT FOWLER, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, September 7.

Recent Cases.—Smithyman *v.* Wilson.—Turning in Accidental Hæmorrhage.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I wish to make remarks upon two cases adverted to in your number for August 27—first that of "Smithyman *v.* Wilson." A man came to me some time ago who had fallen from a ladder and having dislocation of the shoulder, which I put in place and supported by bandage and sling. After several weeks, on getting liberty of his arm, he found the shoulder drop, and showed it to another Surgeon, who told him it was out even if it had been reduced. Being on good terms we met, used the pullies, and the Surgeon putting his shoulder under the axilla heaved up the head of the humerus, which appeared to go in with a crack. "There," said he, "it is in; you heard it." It was bound up, and the man came to me afterwards: it had apparently got out again.

I then discovered, from moving it about, crepitation, and that, in fact, the neck of the scapula was broken. Now it struck me from reading the case you report, that if we, the two Surgeons, had not been on good terms I might have been made a similar victim in my case, although if any mistake were made both of us made it alike.

Second.—The case of "Accidental Hæmorrhage" reported by "A Subscriber." Having had much midwifery practice in my time, I remember one case in particular, fearing the woman would die, treating and turning somewhat summarily in the way mentioned. The woman did die, and it gave me a caution for the future to sustain and promote strength by comfortable things, etc., until I could rely on some rallying from impending dissolution to allow of turning. I would also beg to observe in reference to the plan of another correspondent who induces on all occasions immediate separation and removal of the placenta, that my own experience is against it, and especially that the feeling of woman is most strongly and fearfully against hasty or sudden removal of the after-birth.

August 30. I am, &c. AN OLD SURGEON.

The Duty of Medical Officers on Board Convict Ships.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The letter signed "M.D.," and headed "Acting Assistant-Surgeons," which appears in your journal of this day's date, concludes with the following paragraph :—

"Now, Sir, I beg to draw attention to the Queen's Regulations for the Army :—'Regulations to be Observed by Detachments of Troops Embarked on Board Convict Ships,' paragraph 4, it is laid down 'that the Surgeon is to apprise the convicts of this order to the soldiers,'—an order having no earthly reference to a Surgeon's duties. Why should not the officer in charge apprise the convicts himself?"

I have not a copy of the Queen's Regulations at my hand at this present moment, but without stopping to inquire what is the exact wording of paragraph 4, I think I can satisfactorily reply to your correspondent's concluding inquiry.

The convicts in all our convict ships are given into the charge of a naval Surgeon, and the master of the vessel and all on board are pretty much under his rule and guidance. But of the convicts especially he has sole and undivided charge, and very considerable powers are vested in him for the purpose of maintaining discipline amongst them. The order your correspondent refers to must be in support of the Surgeon's authority. And the Surgeon is very properly directed to apprise the convicts of the order, that they may know the penalties that would result from any wilful disobedience of that authority. The duties of a naval

Surgeon in charge of convicts are more administrative than Medical, and his authority greater than any other officer on board the ship in which convicts are embarked.

I am, &c.

London, September 3. MEDICUS.

The New Indian Warrant.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—No doubt by this time you have received many communications from India condemning the new Medical Warrant, will you also kindly allow me, as an officer of nearly ten years' service, to express the sad disappointment which is universally felt by both services at the very unfair treatment which we have received. By it the juniors, on first arriving in this country, and those of twenty years' service and upwards, will benefit, but those of the intermediate grades will suffer greatly, as all staff allowances and head money have been taken away. I annex a table showing in round numbers the aggregate amount of pay drawn during the first ten years' service by an Assistant-Surgeon in the Indian Army under the old and under the new rules, by which it will be seen that he will be a loser of 4176 rupees. It must also be particularly borne in mind that under the old rules an officer had frequently an opportunity of drawing head money for any extra charge or duty imposed upon him; whereas, now he may be required to take charge of several hundred men besides those of his own corps, and yet receive no allowance for the extra duty, however laborious it may be.

Amount of Pay and Allowances under the Old Rules.

1 year on half batta at rs. 225 per mensem	Rs. 2,700
9 years on full batta in charge of a native regiment at rs. 416 do.	44,928
Aggregate amount drawn in ten years' service.	Rs. 47,628

Amount of Pay under the New Rules Warrant of 1864.

1 year on half batta at Rs. 286 per mensem	Rs. 3,432
4 years on full batta at 317 „	15,216
1 year on ditto at 335 „	4,020
4 years on ditto at 433 „	20,784
Aggregate amount of pay drawn in ten years' service	Rs. 43,452

Note.—Formerly an officer generally received charge of a regiment after twelve months' service.

That most unjust system of "half batta" is still persisted in; by it combatant and Medical officers are mulct to a heavy extent if they happen to be stationed within 200 miles of the presidency.

The covenanted and uncovenanted civil services, the public works, telegraph, and all other departments are exempt from this unfair and heavy imposition! Thus much for the new Medical Warrant as it affects officers up to ten years' service.

I am, &c.,

Bengal, July, 1864. AN ASSISTANT SURGEON.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—A very small share of justice is to be expected from the Secretary of State for India, and a Parliamentary guarantee is in his estimation of even less value than is a Royal Warrant in that of the Horse Guards'. To give but one instance of how the Indian Medical service has been dealt with, the case of Assistant-Surgeons over ten years' service may be taken. This class, constituting no small proportion of the Indian Army Medical officers, has been most severely handled, having had 105 rupees, or, in English money, ten guineas, deducted from the monthly salary of each individual comprising it.

How very differently the combatant officers have fared will be evident from an examination of the scale of staff pay, in addition to the proper pay of rank, which Sir C. Wood has assigned to them in the late reorganisation of the native army. It is as follows:—

Native Cavalry Regiments.

	Rupees.
Commandant, staff salary per mensem	700
Second in command, do.	300
Senior squadron officer, do.	210
Junior squadron officer, do.	180
Adjutant, do.	250
Doing duty officer, do.	150

Native Infantry Regiments.

	Rupees.
Commandant, staff salary per mensem	600
Senior wing commandant, do.	270
Junior wing commandant, do.	230
Adjutant, do.	200
Quartermaster, do.	150
Doing duty officer, do.	100
Medical officer, do.	0

Hitherto, the commandant of a regiment alone had a staff salary of 400 rupees; adjutants and quartermasters had allowances about equivalent to what they have under the new rule. Medical officers, if Assistant-Surgeons under ten years' service, 165 rupees per mensem; if over ten years, or Surgeons, 300 rupees. Surely if the services of combatant officers appointed to native regiments, whose duties are of an ordinary routine character for the most part, are considered to be so very valuable, it is but scant justice to Medical officers, whose duties are as responsible as they are indispensable, to have their staff allowances abolished. It may be remarked that, as a rule, te which the exceptions are few, commandants of native regiments, whether cavalry or infantry, are only regimental majors, some of them brevet lieutenant-colonels, and squadron and wing officers entirely regimental captains, some of them brevet majors.

I shall only add, in conclusion, that the object Sir C. Wood appears to have had in view in framing his Medical "scheme," was to give increased pay (more apparent than real, however) to Assistant-Surgeons under six years' service, and to Surgeons-major, for the purpose of entrapping young men from the schools to enter the service, and of stagnating promotion by retaining the old gentlemen in it. Apologising for this trespass on your time,

I am, &c.

ONE PRESENTLY AND PROSPECTIVELY INJURED BY SIR C. WOOD'S DESPATCH.

Yellow Fever in Peru.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As far back as October, 1857, I took occasion to address to you a note, which you were then pleased to publish, on the subject of recent Andine epidemics, as made known to me by the reports of others at the time, and further investigation made by myself directly when in Peru, in the years 1859-60, has confirmed the opinion I then hesitatingly expressed, that these epidemics were really of the nature of yellow fever.

A few days ago there came accidentally to my hands a volume which contains several explicit references in connexion with the above subject, and approved by the Peruvian Government, as the party most concerned in the civil administration and commerce of the country. I therefore hope you will accept this additional contribution to the geography of yellow fever.

I am, &c.

ARCHIBALD SMITH, M.D. (late of Lima).

8, Buckingham-terrace, Edinburgh, August 26, 1864.

Notices from Paz Soldan on the Yellow Fever of the Peruvian Andes.

An interesting book, full of most valuable statistical information, entitled "Geografia del Peru," by Dr. D. Mateo Paz Soldan, and edited by his brother, Don Mariano Felipe Paz Soldan, has been published in Paris in 1862 at the expense of the Peruvian Government.

In Vol. I., p. 281, of this work we have the following observation by Dr. Paz Soldan:—

"The climate of Lima has at all times been celebrated as healthy and benign; but in the present day it is not so. No doubt the frequent and rapid communication with Panama, the immense ingress of Chinese and other ultra-marine people, have occasioned some remarkable atmospheric change. Consequently, since the year 1851 the population has been afflicted by the frightful epidemic yellow fever and black vomit, which attacks almost all strangers. And it is deserving of notice that this pestilence, which is proper to hot and marshy climates, did not spare the Andine hill-lands (*Sierraneas*), but almost depopulated the province of Conchucos, and also certain other provinces in the department of Cuzco."

It is highly probable that the great influx of immigrants (and strangers from the upland provinces of Peru itself, as well as from Europe) within the last fifteen years, may have deteriorated the local atmosphere of the Peruvian capital, in which, notwithstanding the mildness of its climate, dysentery, typhoid, and intermittent fevers have always been prevalent diseases. Humboldt remarks that people of a colder climate, when transported into the torrid zone, are readily affected by a hot and vitiated atmosphere, of which the natives scarcely feel the bad effects; and in illustration of the fact, he mentions that the great epidemics of Panama and Callao (the seaport of Lima) used to be signalised by the arrival of ships from Chile, one of the healthiest countries on earth. (Essai Politique, tome iv., ch. xii., pp. 503-4.)

Again, at page 437, vol. i., of the "Geografia del Peru," Dr. Paz Soldan observes that Pocsi is a Cordillera village, five leagues south-east of Arequipa, both cold in climate and poor in cultivation. "It is, however, noteworthy that here, as in Chihuata, yellow fever committed great devastation in 1855. This is a phenomenon of difficult explanation."

It will much facilitate the explanation of this phenomenon to bear in mind that this inland fever, though propagated to the Sierra, did not originate at Pocsi or Chihuata, at the elevation of 9676 feet above the sea, and in the vicinity of the snow-capped "Misti," which rises to the height of 20,000 feet. Not to speak of the precursory "peste" of 1851 and 1852, the Peruvian yellow fever of 1853 (when the yellow skin and black vomit symptoms first appeared) commenced in the capital in the hot months, and at a high point of atmospheric temperature, and spread thence to the interior provinces of every gradation of elevation and temperature. In tracing the march of this epidemic from the shores of the Pacific, at Islay, to the banks of the Apurimac, in Cuzco,—that is, from 400 to 500 miles,—the disease assumes different modifications from differences in climate and atmospheric rarefaction; and yet, at the elevation of from 7000 to 8000 feet in the intercordillera and malarial valley of Abancay, where the pestilence reigned supremely, the climate is quite as hot and tropical as on the coast of Peru.

When once this pestilence became generally diffused in Upper Conchucos in 1853-54, and in Ayacucho, Puno, and Cuzco in 1855-56, it carried desolation over Andine populations at the elevation of from 12,000 to 13,000 feet above the sea, as, for example, in Puno, Lampa, Pucara, and Azangaro in South Peru, all of which places (according to Markham—"Travels in Peru and India") enjoy a mean temperature of about 52° from the latter end of March to the middle of April. It is just at this time the yearly transition from the wet to the dry months takes place in those highlands. In the wet season there is no frost, and the temperature in-doors is more uniform. In the dry season there is frost at night at such high elevations, though by day the sun is bright and scorching even on the Cordillera.

According to Dr. J. Kill-Krist (Forbes' "Encyclopælia of Practical Medicine") fresh cases of yellow fever soon ceased to appear in Spain and America, at a temperature of about 50° Faht.; and Andral, in his "Pathologie Interne," states, on the authority of Dr. Daviste, that yellow fever is not arrested in its propagation by cold until the temperature of the air falls below 8° Centigrade. But when Andral says that yellow fever is nowhere seen at an elevation above 2000 metres, this statement is quite at variance with the history of the recent Andine epidemics recorded in the Peruvian geography of Paz-Soldan. In the city of Cuzco, situated in S. lat. 13, 30, 55, and at the altitude above the sea of 3468 metres, the yellow fever of 1855-56, as there observed and reported on to the Peruvian Government by competent Medical men, European and native, appears to have preserved the true typhus-icterodes type in the more aggravated cases, though the homogenous black vomit which was so fatal a symptom in 1854 and 1856 in Lima—especially among foreigners and the white race—seems to have been in a great measure substituted by vomiting of dark blood in the Sierra generally, though in Cuzco some cases are recorded of what appears to have been genuine black vomit.

For fuller particulars concerning this yellow fever of the Peruvian Andes, see a paper by Archd. Smith in the *Transactions* of the Epidemiological Society.

Professional Puffing.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIS,—The enclosed scrap has been going the round of the local papers in this county (Pembrokeshire), and as it is not the first of its kind, people will be tempted to infer that its insertion is connived at by the "bold" operators.

A few weeks ago one of the two "Medical gentlemen" removed a tumour from the temple of an old gentleman after other Medical men were stated to have declined to operate, and in the same newspaper announcing the fact was the card of the operator—"Mr. ——, Surgeon, —— Street, Haverfordwest."

The removal of cancer of the lower lip being a very common operation with Surgeons, with even a moderate country practice, the public in this case will not be gulled by this advertisement; but the habit of puffing cannot be too severely reprobated by the Profession at large, and, perhaps,

by thus giving publicity to cases as they occur you may succeed in putting a stop to the degrading custom. I am, &c.

DIGNITAS.

"SURGICAL OPERATION.—The following appears in *Potter's Electric News* of Wednesday last:—'A novel operation was performed last week by J. Dudley Phillips, Esq., assisted by G. Birch, Esq., on a poor man at Spittal, who was a martyr to cancer of the lower lip, the whole of which was removed, owing to the existence of a tumour, and the vacant place supplied by a piece of new flesh from the poor man's face. If this proves a success, which from report it seems likely to do, it certainly redounds to the credit of these gentlemen to have undertaken so bold and serious an operation when other Medical gentlemen had dismissed the case as incurable.'"

SYPHILOGRAPHY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Having interested myself in the elucidation of some points relating to syphilis, I have reflected that it is scarcely proper to withhold any little information I may have at hand at a conjuncture of time when the extension of this disease is attracting a certain amount of public notice, however conscious I may be that my observations can form but a trifling contribution to a subject the literature of which is already so extensive. It has suggested itself to me to ascertain the views of Portuguese Practitioners in the present day as to treatment. I hoped by communicating with them better to understand the essay of Dr. Fergusson of some fifty years' date, which (with others of a more ephemeral character by his colleagues) is still quoted in Surgical lectures in this country, and is adduced as evidence when this subject is under particular consideration.

Although I happen to have enjoyed the advantage of Dr. Fergusson's acquaintance, yet I confess, looking at the essay itself, I am unable to put any other practical interpretation on his views than that he would inculcate greater caution and moderation in the use of mercury than had been previously practised by him and others. His recorded statements are, however, quite of a nature to invite inquiry.

My curiosity has been equally interested on the subject of that immunity from severe forms of the disease which has been rather amply conceded to families, classes, and even nations in circumstances where the syphilis is common and where it is allowed to run its course unchecked.

I accordingly addressed myself to Dr. Marques, an accomplished author and Surgeon, editor of the *Escholiaste Medico*, the best known Medical journal, as far as I am informed, among those current in Portugal. Dr. Marques is a distinguished member of the Portuguese army, and conversant with these subjects. He informs me that we are far from those days when syphilis would be treated in Portugal without mercury; though he is far from affirming that there is an absolute uniformity in practice, yet such treatment does not find advocates in his country now; indeed, the prejudices and practice of Fergusson's time are quite gone by (*completamente banidos*). So generally received is the use of mercury among the population that there is a provincial Hospital—St. Mark's, at Braga—which has considerable repute for a particular method of employing mercury and consequently this Hospital receives a great accession of patients from its province (Minho), a great number of whom enter the Hospital with the view of subjecting themselves to such mode of cure. The method consists in mercurial inunction, an increased activity of the cutaneous functions being all along maintained by lying in woollen blankets. This routine has led to an occasional abuse of ptyalism, and it has occurred in Portugal as elsewhere that the distinction has not been accurately drawn between those sores which infect the constitution through the blood mass and those which have not that result. It was from being dissatisfied with the imperfect results which were the consequence of this neglect that Dr. Marques was induced to undertake the translation of Mr. Henry Lee's work, and he has endeavoured by other writings to introduce the Turkish bath into his country both for its own merits and as ancillary to Mr. Lee's plan of treatment.

Dr. Marques is of opinion that the explanation is erroneous which attributes the comparative mildness of syphilitic forms in Portugal to an immunity derived from foregone infection of parents, or to a general diffusion of the disease among the community. "We are," he writes, "to consider that the Portuguese military of Fergusson's time were mostly recruits from country districts in which syphilis is almost unknown;" and besides allowing, as Dr. Marques does, that such an immunity may, and does in fact, exist from the operation of previous infection and hereditary taint, a truth which none are more ready to admit than himself, yet, according to him, such influences cannot be taken into account in a general view of the disease in Portugal. The variation or contrast in the progress of the disease as seen in the English and Portuguese soldiery is fully to be accounted for on other and more obvious grounds. Indeed, among the Portuguese it is not syphilis and variola alone which, as observed by Fergusson, are of the mildest type and character, but other disorders also, and in a striking instance, scarlatina, which in that country is ever a very slight affection. To this I may add that ruddy and vigorous constitutions suffer most from the devastations of syphilis, the florid and light complexioned, according to Diday and other writers, quite particularly so. The English soldiers were recent arrivals, unaccustomed to the stimulus of a glowing clime with hot strong wines and full rations, and excited by the variety of scene and passionate thrill of warlike adventure. Perhaps they might not inaptly be compared with the German and Gallic legionaries of Vitellius, whose first acquaintance with the purlieus of Rome may be seen described in the pages of Tacitus, and they paid penalties apparently not dissimilar Whoever would see how far the dictary of the sober Portuguese differs from an English standard may find this in the *British and Foreign Med. Chir. Review*, April, 1863, page 395. It defies all comparison, and for meagreness of articles of subsistence is quite beyond our experience.

The extension and frequency of syphilis in Portugal, according to my informant, are maintained by the prevalence of dissipation in society, at the same time that they are limited by a certain degree of police control. In the military Hospitals of Lisbon there are two wards always reserved for this class of complaints. The two wards contain sixty beds, but it sometimes happens that only one ward is occupied. In the city of Oporto it is difficult to enforce the police regulations, and, as a consequence of their imperfect execution, the venereal cases comprise one-third of the soldiers in Hospital—or even a greater proportionate number. In Lisbon prostitutes who have been subject to inspection are referred, if diseased, to a particular Hospital. In the year 1862 the number of women so admitted were 1007, most of whom underwent a course of treatment. Sanitary precautions of this nature are no novelty in Portugal, having been instituted A.D. 1608 by a law of that date, some time previous to such regulations being in use among the French, who, if we may believe Parent Duchalet, only adopted them A.D. 1684.

A more recent law regulating the supervision and care of prostitutes dates from the year 1836, but it seems it is only recently that this law has been enforced. At the present time there is a registration (matricula) and two dispensaries where the women undergo examination once a week: indeed, it is chiefly by clandestine prostitution, such as occurs to some extent in all large cities, that syphilis at the present time keeps its hold on the community. The features of syphilitic disease in Portugal display every shade and variety modified by climate and by such causes as have already been referred to. Moreover, Dr. Marques affirms that the influence of climatic conditions, as regards the progress of the disease, is very plainly recognisable in the limited area of his own country,—tertiary symptoms showing themselves in far greater obstinacy and frequency under the influence of cold and damp. For indeed Oporto is a cold place when compared to Lisbon, and it is also in soil and atmosphere exceedingly damp, with fogs from sea and its magnificent river, scarcely less than those to which London is subject. This contrast impressed Dr. Marques with the importance of the dermic function in treatment, and was the occasion, in great part, of his attention being engaged by the endermic use of mercury in the management of the disease. I will here allude to a difficulty which has been known to exist in bringing certain patients under the constitutional influence of mercury in hot climates, which fact, though previously known to me, I have seen nowhere noticed but in Dr. Marston's communications to the Medical and Chirurgical Society, in regard to his patients at Malta. It affords a further reason for making so extensive an organ and chief enunctory as the skin available for treatment of syphilis in lower latitudes than ours.

It is worthy of observation that it was not in the armies of Portugal that Dr. Fergusson informs us he first encountered the assertion that mercury was little necessary in the treatment of syphilis, but this had occurred to him in other European armies. Whoever will consider the vast military movements of those times, and the rough and reckless way all that concerned war was carried on, will, I believe, be led to think that chancroïd, or soft suppurating chancre, probably existed among the soldiers in a greater proportion of the sores than is the case in the community among us at present, and the success of non-mercurial practice would be in that degree favoured. I allow that nothing can be more graphic than the description which Fergusson gives of the Portuguese soldier washing away the ointment with which he had been bedaubed under orders of a barbarous foreign Doctor; but I have known just such a *fracas* to arise in a respectable French family about a few grains of grey powder—a prejudice among his countrymen which, in regard to calomel, Trousseau has stigmatised as truly deplorable. Such behaviour is the expression of distrust and ignorance, and evidently not of experience, whether imparted or otherwise.

I would certainly avoid the appearance of undervaluing any kind of inquiry, but it appears to me a subject of regret that recent discussions on the use of mercury in syphilis have not taken a more practical turn. The question which, as it appears to me, lies most open for solution in the present day is whether mercury should be given concurrently with the existence of primaries, or withheld until the secondary symptoms appear. In favour of the first proposition, I will mention the fact insisted on by M. Diday of the existence of a well-marked anæmia which precedes and accompanies the secondaries. This symptom, as he avers, forbids the opportune administration of mercury until the constitution is improved by tonics and country air; and this admission seems to me to militate against such a delay in the use of mercury as is implied in his expectant method.

In considering the genesis of these enthetic diseases, or forms of disease, a hint may be drawn, I think, from the manner in which Dr. Marques has treated the subject of contagious army ophthalmia, or granular ophthalmia of armies, a disease which may be regarded as established in Europe in a degree only second to syphilis itself. He derives support from Desmarres and Mackenzie in demonstrating that a disease having a catarrhal origin and attributable to climatic influences, or what is called "Medical constitution," and other surrounding circumstances (circumfusa), can, in individuals not unsuited for its reception, become rapidly, violently, and extensively contagious. Similar views, he says, are supported by Auber in his "Philosophic Medicale." According to such a mode of reasoning we need not assume the existence of germs implanted in an almost passive organism, which, in their unswerving and exact proliferation, have their continuation from out of a definite species coeval with our race, still in their existence and operation ever foreign to the economy, not to say anomalous. We should, on the contrary, regard these diseases as constituted reactions of the system, and however distinct and communicable, partaking largely of a physiological character, any kind of vitality they may possess having arisen during the progress of time, and not to be thought of as bestowed in the beginning of time. If the symptoms of an acute epidemic are so little liable to deviation from a type, why may not the same occur in chronic complaints? The phenomena of measles are, perhaps, the results of a varied causation, and certainly those of ague are so. I venture, in illustration, to refer to an infectious catarrh, described by the historian in the siege of Saragossa (Southey's "Peninsular War"). This malady arose in the beginning of the siege from exposure to snow, frost, and wet; subsequently confinement in cellars, starvation, dirt, and desponding passions intensified it into a contagious, catarrhal, and pulmonary disorder of peculiar malignity.

The consideration of the origin of the non-specific forms of gonorrhœa lead us in the same direction. I must apologise for intruding so far on your space. I hope on some future occasion to place at your disposal some cases of pustular tertiary eruptions successfully treated in the Military Hospital of Lisbon by the use of arsenical preparations. I am, &c.

3, Westbourne-park. G. GASKOIN.

COMMUNICATIONS have been received from—

MR. SAMUEL ROWE; DR. DAVID FORBES; MR. C. F. MAUNDER; MR. J. HADDEN; DR. E. B. GRAY; DR. J. CAMERON; MR. CHARLES WELCH; DR. BARRON; E. R. B.; APOTHECARIES' HALL; DR. STEGGALL; THE UNIVERSITY OF ST. ANDREWS; DR. E. W. ROWDEN; PRIVY COUNCIL OFFICE MEDICAL DEPARTMENT; DIGNITAS; MR. R. GRIFFIN; MR. R. B. CARTER; MEDICUS; THE UNIVERSITY OF DURHAM; AN ASSISTANT-SURGEON; MR. THOMAS JOYCE; PROFESSOR STRUTHERS; DR. W. F. CLEVELAND; MR. E. W. TUSON; DR. H. LEACH; ONE PRESENTLY AND PROSPECTIVELY INJURED BY SIR C. WOOD'S DESPATCH; MR. J. H. EVANS; DR. FLEETWOOD BUCKLE; UNIVERSITY OF GLASGOW; MR. WILLIAM GAYTON; ST. THOMAS'S HOSPITAL.

BOOKS RECEIVED.

Remarks on Horses' Teeth, addressed to Purchasers. By William Miles, Esq. London: Longman and Co. 1864.

*** A large amount of information in a small space, but we question whether it would not be better for the ordinary public when purchasing a horse to consult a Veterinary Surgeon rather than Mr. Miles's little book. We can recommend it, however, to those who feel interested in the subject.

Medizinische Jahrbücher; Zeitschrift der K. K. Gesellschaft der Arzte in Wien.

The Medical Yearbook; the Journal of the Imperial Association of Physicians in Vienna. Heft. 1, 1864.

*** This journal enters on its 20th year, and shows no sign of decay in its youthful vigour. There is nothing in it, however, to demand special notice from us except the report of three cases, each by a different observer, of Addison's disease. It has been rather implied in some quarters lately that the Germans ignore or ridicule this disease, but a fresh proof that some of them, at least, are alive to its existence and importance is given by these cases. Ploss, Oppolzer, and Van der Corput each report an instance in all essential respects similar to those with which the Profession in England are now so familiar, and in which disease of the capsules having been diagnosed during life was found after death.

A Woman's Example and a Nation's Work. A Tribute to Florence Nightingale. London: Ridgway. 1864. Pp. 92.

*** This is briefly an account of the origin and labours of the Sanitary Commission of the United States—a voluntary Association, which, against many obstacles, chiefly official, has been acting the part of the good Samaritan during the civil war in America. It concludes with an appeal for British aid.

Society for the Encouragement of Arts, Manufactures, and Commerce. Report addressed to the Council by the Special Committee on the Statistics of Dwellings Improvements in the Metropolis. 1864. Pp. 48.

*** The desirableness of these improvements both for the moral and physical amelioration of the labouring classes everybody agrees in, whether these improvements consist in the erection of new buildings such as those raised by the philanthropic munificence of Miss Burdett Coutts and Mr. Peabody, or in the adaptation of old buildings to the reception of several distinct families. But—and here is the practical difficulty—so vast is the provision that has to be made, that all hitherto done, and all that benevolence is likely to do, scarcely makes any very obvious impression upon the mass of misery which this metropolis, to say nothing of every large town in our country, exhibits. Will it pay? This is the question. Is this sort of building and improvement such an investment of money as will produce a reasonable return? For if it cannot be brought within the scope of ordinary commercial enterprise, it can never be expected to become popular. The tables supplied in this report give some sort of answer to these questions. Some of the schemes have paid very well, others moderately well, and on some there has been a loss. It appears that the gain or loss does not depend upon the risks attendant upon letting the rooms so much as on the prudence with which sites are selected, and the outlay primarily requisite.

The Ophthalmic Review. A Quarterly Journal of Ophthalmic Surgery and Science. Edited by J. Zachariah Laurence, of London, and Thomas Windsor, of Manchester. Nos. 1 and 2.

*** Messrs. Laurence and Windsor consider that there is room for a new periodical on the subject of Ophthalmology, as "there is no English journal which displays to the Surgeon a complete account of what is going on at home and abroad in this important and interesting branch of Surgery." Their *Review* "is quite as much intended for the Profession at large as it is for Ophthalmic Surgeons, and has taken for its model the well-known *Annales d'Oculistique* and the more recent *Monatsblätter* of Zehender." We might have been pardoned for wishing that the editors had contributed their well-known talents to the pages of the already firmly-established *Ophthalmic Hospital Reports;* but since they have otherwise elected, we can scarcely regret a decision which has produced two numbers of such unquestionable excellence; and the more that they seem disposed to redeem their promise to give a much more full account of the progress of ophthalmology on the Continent of Europe than the general reader is likely to obtain elsewhere. In the two numbers there are—one paper by Professor Zehender, two by Professor von Graefe, one by Dr. Mooren, one by Mr. Moon, two by Mr. Windsor, one by Dr. Rosebrugh, of Toronto, and one by Mr. Laurence. There is also in each number a careful Retrospect of Ophthalmic Surgery at home and abroad, and various reviews on the current literature on this special subject, one of which, in the first number, is characterised by a vivacity which the editors may consider it expedient to modify in subsequent issues. If the succeeding numbers of the *Review* maintain the high standard of the two first, its success is certain.

Annual Report of Lunatic Asylums in Cumberland and Westmoreland, Somerset, Nottingham, Richmond Asylum, Dublin, N. and E. Ridings of Yorkshire, and Sussex.

*** We group all these together because they have much in common, in so far as they are issued to meet the requirements of the statute under which they are founded. We shall limit our remarks to a few observations respecting them. In the Sussex report Dr. Robertson details a case of mania with albuminuria, which he considers to have been cured by the Roman bath, some two months previous to which the patient had been subjected by Dr. Robertson to the hydropathic treatment of packing in the wet sheet. It appears that the Roman bath is regularly used in his treatment of patients at Hayward's Heath. The Medical superintendent of the Richmond Asylum furnishes a table of the "supposed cause of mental disease." It seems that out of 680 there were 465 in which it is stated to be "unknown." Nor do the items on the table furnish a much greater amount of useful information; for among them we find such "causes" as "Delirium," "Anger," "Fancy," "Idiocy," "Medicine," "Predisposition," etc. Why cannot the superintendents of Asylums take a little trouble in this important matter? for Richmond Asylum does not stand alone in this respect. Surely they could by inquiry properly conducted arrive at something like a rational etiology. At the Somerset Asylum there is a band which performs during dinner, and the commissioners report that an improvement has been effected by the decoration of the walls and the introduction of flooring planks, etc. Aviaries also are being constructed, and much is being done to improve the aspect and comfort of the Asylum. Dramatic performances have also been introduced, with good results. The Medical superintendent of the Cumberland and Westmoreland Asylum directs our attention to the diet table, which had been altered at his suggestion, so that "a saving has been effected without reducing the scale too low." We have no opportunity of knowing what the former diet table was, or we should have included it in our summary on a former occasion. We have now, however, to say that there are two "maigre days," when dinner consists of bread and broth, and that the amount of meat supplied on meat days is not so large as in the best conducted Asylums, but he adds that "the dinners have given universal satisfaction."

On the Advantages derivable to the Medical Profession and the Public from the Establishment of Village Hospitals; with General Instructions concerning Costs, Plans, Rules, etc.; and an Appropriate Dietary. By Albert Napper, Esq., M.R.C.S., L.S.A., Founder of the System, Cranley, Surrey. London: Lewis. 1864. Pp. 20.

*** The advantages which the poor derive from a Hospital apart from that of skilful Medical and Surgical attendance consists in the improved chances of recovery due to removal from a crowded house to a well-arranged ward, the relief from nursing and attendance afforded to the rest of the family, and the provision of an appropriate diet properly prepared and served. We say "apart from the question of Medical attendance," because it is a truth that there are to be found practising even in small towns and villages Medical men as thoroughly fitted to administer to the sick and wounded, as entirely competent to undertake the care of any diseased patient or to perform any operation in Surgery as could be found in a London Hosdital. We do not say that every village Doctor is of this stamp, but we know that such men, nevertheless, abound. We all know, too, that the issue of a case in recovery or death depends very much upon whether the circumstances about the patient are favourable or the reverse, and the nursing good or bad. Holding such views, we are desirous of seeing Mr. Napper's system tried more extensively than it yet has been. Its main features are these:—That every patient should pay a small weekly sum towards his maintenance, and he finds 5s. per week a practicable amount, which, in the case of destitute persons, might be guaranteed by the Union he belongs to. That admissions should be granted by the manager on consultation with the Medical officer. That the Hospital should be no larger than a single nurse (with occasional help) can attend to. That one Surgeon only should take entire charge of it, while the whole Medical communtity should render assistance in any cases in which they might be (any one of them) interested. He shows how such Hospitals may be economically conducted by the experiment instituted at Cranley, where the average cost per bed is £33 per annum. He thinks one bed for every 1000 of a population sufficient provision. The diet table appended is liberal. The "Cranley Village Hospital" has six beds.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 3, 1864.

BIRTHS.

Births of Boys, 970; Girls, 897; Total, 1867.
Average of 10 corresponding weeks, 1854-63, 1702·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	711	730	1441
Average of the ten years 1854-63	629·5	612·8	1242·3
Average corrected to increased population..	..	..	1227
Deaths of people above 90	..	..	5

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa
West ..	463,388	..	6	7	6	3	9	22
North ..	618,219	3	6	11	1	5	16	41
Central ..	378,058	..	5	8	3	4	7	22
East ..	571,158	1	33	18	5	6	30	46
South ..	773,175	3	8	18	3	5	25	49
Total ..	2,803,989	7	58	62	18	23	87	180

APPOINTMENTS FOR THE WEEK.

September 10. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

12. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

13. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

14. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

15. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

16. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

RULES AND REGULATIONS

OF THE

EXAMINING MEDICAL BODIES IN ENGLAND.

SESSION 1864—1865.

UNIVERSITY OF OXFORD.

TERMS REQUIRED FOR DEGREES IN MEDICINE.

Candidates for the Degree of Bachelor of Medicine are required to reside the same number of terms—viz., twelve, or three years—and to pass the same public examination as Candidates for the B.A. Degree; after which sixteen terms, or four years of Professional study, are necessary.

For a Doctor's Degree, three whole years after the Bachelor's are required.

EXAMINATIONS REQUIRED FOR DEGREES IN MEDICINE.

For the Degree of Bachelor of Medicine all students (besides undergoing the same examination appointed for Bachelors of Arts) must pass two Medical Examinations; the first (in Anatomy, Physiology, Chemistry, Botany, and Mechanical Philosophy) (a) after the expiration of *two* years; the second (in the Theory and Practice of Medicine, Materia Medica and Therapeutics, Pathology, Hygiene, etc.) after the expiration of *four* years, from the date of having passed the B.A. examination in one School.

For a Doctor's Degree in Medicine a dissertation upon some subject, to be approved by the Regius Professor, is to be publicly recited in the Schools, and a copy of it afterwards delivered to the Professor.

UNIVERSITY FEES.

At Matriculation.—For a Servitor, or Bible-Clerk, 10s. For Privileged persons (according to stat. tit. vi. 5, § 1), not claiming immunity, £5. For all others, £2 8s. And for non-Academicians, £1.

At Graduation.—For the Degree of S. Med., £7 10s.; for B. Med., £6 10s. For the Degree of M.D., £40.

Fees *comitatis causâ*, £1.

Fees at Examination.—All Undergraduates are called upon to pay fees on entering their names for their respective Examinations: viz., for Responsions, 20s.; the First Public Examination, 21s.; the Final Examination, 21s.; for admission into any second school, 10s.; for Examination in Medicine, 20s. An additional fee of £10 for the Examinations in Medicine is paid to Bachelors in that Faculty before admission to that Degree.

UNIVERSITY OF CAMBRIDGE.

REGULATIONS FOR DEGREES IN MEDICINE AND SURGERY.

For the *Degree of Bachelor of Medicine* five years of Medical study are required, except in the case of those who have graduated with honours as Bachelors of Arts, four years being then deemed sufficient.

Nine terms (three years) must be spent in the University, the first three in the study of Classics and Mathematics, and the previous examination in the additional subjects must be passed. The last six terms are devoted to Medical study. Four terms only of Medical study, however, in the University are required of a B.A. who has graduated with honours.

There are two Examinations. The first (after three years of Medical study) is in Chemistry, Botany, Comparative Anatomy, Human Anatomy and Physiology, Materia Medica and Pharmacy, Pathology, and selected portions of Celsus, Hippocrates, and Aretæus. Students who have passed in Chemistry, Botany, and Comparative Anatomy, in the examination for the Natural Sciences tripos, are not required to be again examined in them.

The second Examination (at the conclusion of the period of Medical study) is in Physiology, Pathology, and the Practice of Physic, Clinical Medicine, Medical Jurisprudence, and the Medical treatment of Surgical and Obstetric Diseases.

The Examinations are partly in writing, partly *viva voce*.

An Act has to be kept, which consists in reading an original Thesis, and a *viva voce* examination on the subject of the thesis, and on other subjects.

Previously to the first Examination, Lectures must have been attended on Chemistry (including manipulations), Botany, Comparative Anatomy, Human Anatomy, and Physiology, Pathology, Materia Medica, and Pharmacy; also Dissections for six months.

(a) Candidates who have already obtained a place in the first or second class in the Natural Science School, are excused these three last subjects.

Previously to the second Examination, Lectures must have been attended on the Principles and Practice of Physic, Clinical Medicine, Clinical Surgery, Medical Jurisprudence, Obstetrical Medicine; also Hospital Practice for three years.

The *Degree of Doctor of Medicine* may be taken three years after M.B. An Act has to be kept with *viva voce* Examination. A Master of Arts, proceeding to M.D., is required to produce the same certificates and pass the same Examinations as for M.B.

For the *Degree of Master in Surgery* the course is the same as for M.B., till the first Examination; and the first Examination is the same as for M.B.

The second Examination (at the completion of the period of study) is in Surgical Anatomy, Pathology, and the Principles of Surgery, Clinical Surgery (at the bed-side), Midwifery, and Medical Jurisprudence.

Previously to the second Examination, Lectures must have been attended on Human Anatomy (a second course), the Principles and Practice of Surgery, Clinical Surgery, Midwifery (with ten cases), Medical Jurisprudence; also a second season of Dissections, three years' Surgical, and one year's Medical Practice at a recognised Hospital, and a House-Surgeoncy or Dressership for six months.

Attendance at the Hospital and Lectures in Cambridge is recognised by the Universities of Cambridge and London, and (for one year) by the College of Surgeons and the Society of Apothecaries.

UNIVERSITY OF LONDON.

BURLINGTON HOUSE, W.

BACHELOR OF MEDICINE.

Candidates for the Degree of Bachelor of Medicine are required—

1. To have passed the Matriculation Examination of this University, or to have taken a Degree in Arts in one of the Universities of the United Kingdom.

2. To have been engaged in their Professional studies during four years subsequently to Matriculation or Graduation in Arts, at one or more of the Medical Institutions or Schools recognised by this University; one year, at least, of the four to have been spent in one or more of the recognised Institutions or Schools in the United Kingdom.

3. To pass the Preliminary Scientific Examination(a), and two Examinations in Medicine.

PRELIMINARY SCIENTIFIC EXAMINATION.

The Preliminary Scientific Examination takes place once in each year, and commences on the third Monday in July.

No Candidate is admitted to this Examination until he has completed his seventeenth year, and has either passed the Matriculation Examination or taken a Degree in Arts in one of the Universities of the United Kingdom; nor unless he have given notice of his intention to the Registrar at least *fourteen days* before the commencement of the Examination.

The fee for this Examination is Five Pounds.

Candidates are examined in the following subjects(b):—Mechanical and Natural Philosophy; Inorganic Chemistry; Botany and Vegetable Physiology; Zoology and Comparative Anatomy.

EXAMINATION FOR HONOURS.

Any Candidate who has passed the Preliminary Scientific Examination may be examined for Honours in (1) Chemistry and Natural Philosophy, (2) Biology. If in the opinion of the Examiners any Candidate of not more than twenty-two years of age who has passed either the Preliminary Scientific M.B. Examination or the First B.Sc. Examination possesses sufficient merit, the Candidate who distinguishes himself the most of all the Candidates who have passed either of the said Examinations, and who are not more than twenty-two years of age, in Chemistry and Natural Philosophy, and the Candidate who distinguishes himself the most of all the Candidates who have passed either of said Examinations, and who are not more than twenty-two years of age, in Biology, shall each receive an Exhibition of Forty Pounds per annum for the next Two Years, payable in

(a) Candidates who matriculated previously to January, 1861, will not be required to pass the Preliminary Scientific Examination in any other subjects than Chemistry and Botany; and they will be allowed to pass the Preliminary Scientific Examination and the First M.B. Examination in the same year, if they so prefer.

(b) Candidates who pass in all the subjects of the Preliminary Scientific Examination, and also in the Mathematics of the First B.Sc. Examination, are considered as having passed both the Preliminary Scientific Examination and also the First Bachelor of Science Examination, without the payment of any additional fee.

quarterly instalments (it being intended that one Exhibition only shall be given in each case among all the Candidates, although some of such Candidates may have passed the Preliminary Scientific M.B. Examination, and others the First B.Sc. Examination); provided that on receiving each instalment he declares his intention of presenting himself at the First M.B. Examination within three years from the time of his passing the Preliminary Scientific Examination, or at the Second B.Sc. Examination within two years from the time of his passing the First B.Sc. Examination.

FIRST M.B. EXAMINATION.

The First M.B. Examination takes place once in each year, and commences on the last Monday in July. No Candidate is admitted to this Examination unless he have produced certificates to the following effect:—1. Of having completed his nineteenth year. 2. Of having passed the Preliminary Scientific Examination at least one year previously.(c) 3. Of having, subsequently to having taken a Degree in Arts or passed the Matriculation Examination, been a Student during two years at one or more of the Medical Institutions or Schools recognised by this University, and of having attended a Course of Lectures on each of three of the subjects in the following list:—Descriptive and Surgical Anatomy, General Anatomy and Physiology, Comparative Anatomy, Pathological Anatomy, Materia Medica and Pharmacy, General Pathology, General Therapeutics, Forensic Medicine, Hygiene, Midwifery and Diseases peculiar to Women and Infants, Surgery, Medicine. 4. Of having, subsequently to having taken a Degree in Arts or passed the Matriculation Examination, dissected during two Winter Sessions. 5. Of having, subsequently to having taken a Degree in Arts or passed the Matriculation Examination, attended a Course of Practical Chemistry, comprehending Practical Exercises in conducting the more important processes of General and Pharmaceutical Chemistry; in applying tests for discovering the adulteration of articles of the Materia Medica, and the presence and nature of poisons; and in the examination of Mineral Waters, Animal Secretions, Urinary Deposits, Calculi, &c. 6. Of having attended to Practical Pharmacy, and of having acquired a practical knowledge of the Preparation of Medicines.

These certificates must be transmitted to the Registrar at least fourteen days before the commencement of the Examination.

The fee for this Examination is Five Pounds.

Candidates are examined in the following subjects:—Anatomy, Physiology,(d) Materia Medica and Pharmaceutical Chemistry, Organic Chemistry.

EXAMINATION FOR HONOURS.

Any Candidate who has been placed in the First Division at the First M.B. Examination may be examined for Honours in (1) Anatomy, (2) Physiology, Histology, and Comparative Anatomy, and (3) Materia Medica and Pharmaceutical Chemistry, and Organic Chemistry.

If in the opinion of the Examiners sufficient merit be evinced, the Candidates who distinguish themselves most in Anatomy; Physiology, Histology, and Comparative Anatomy; and the Candidate who distinguishes himself the most in Materia Medica and Pharmaceutical Chemistry; and in Organic Chemistry, shall each receive an Exhibition of forty pounds per annum for the next two years; provided that on receiving each instalment he declares his intention of presenting himself at the Second M.B. Examination within three years from the time of his passing the First M.B. Examination.

Under the same circumstances, the First and Second Candidates in each of the preceding subjects shall each receive a gold medal of the value of £5.

SECOND M.B. EXAMINATION.

The Second M.B. Examination takes place once in each year, and commences on the first Monday in November.

No Candidate is admitted to this Examination within two academical years of the time of his passing the First Examination, nor unless he have produced Certificates to the following effect:—

1. Of having passed the First M.B. Examination.

2. Of having subsequently to having passed the First M.B. Examination attended a Course of Lectures on each of two of the subjects comprehended in the foregoing list, and for which the Candidate had not presented Certificates at the First M.B. Examination.

3. Of having conducted at least twenty labours. Certificates on this subject will be received from any legally-qualified Practitioner in Medicine.

Any Candidate for the Second M.B. Examination who has passed the First M.B. Examination under the former Regulations, will be required to have also passed the Examination in Physiology at some previous First M.B. Examination carried on under the present Regulations; at which Examination he is not allowed to compete for Honours.

4. Of having attended the Surgical Practice of a recognised Hospital or Hospitals during two years, with Clinical Instruction and Lectures on Clinical Surgery.

5. Of having attended the Medical Practice of a recognised Hospital or Hospital during two years, with Clinical Instruction and Lectures on Clinical Medicine. N.B.—The Student's attendance on the Surgical and on the Medical Hospital Practice specified in Regulations 4 and 5 may commence at any date after his passing the Preliminary Scientific Examination, and may be comprised either within the same or within different years; provided that in every case his attendance on Hospital Practice be continued for at least eighteen months subsequently to his passing the First M.B. Examination.

6. Of having, subsequently to the completion of his attendance on Surgical and Medical Hospital Practice, attended to Practical Medicine or Midwifery, with special charge of patients, in a Hospital, Infirmary, Dispensary, or Parochial Union, during six months.

The Candidate must also produce a Certificate of Moral Character from a teacher in the last School or Institution at which he has studied, as far as the Teacher's opportunity of knowledge has extended.

These Certificates must be transmitted to the Registrar at least fourteen days before the Examination begins.

The fee for this Examination is £5.

Candidates are examined in the following subjects:—General Pathology, General Therapeutics, and Hygiene; Surgery; Medicine: Midwifery; Forensic Medicine.

Such Candidates only as are placed in the First Division shall be admissible to the Examination for Honours.

The Senate desire it to be understood that Bachelors of Medicine of the University of London have no right, as such, to assume the title of Doctor of Medicine.

EXAMINATION FOR HONOURS.

Any Candidate who has been placed in the First Division at the Second M.B. Examination may be examined for Honours in (1) Medicine, (2) Midwifery, and (3) Forensic Medicine. If in the opinion of the Examiners sufficient merit be evinced, the Candidate who distinguishes himself the most in Medicine shall receive £50 per annum for the next two years, with the style of University Scholar in Medicine. Under the same circumstances, the Candidate who distinguishes himself the most in Midwifery shall receive £30 per annum for the next two years, with the style of University Scholar in Midwifery. Under the same circumstances, the Candidate who distinguishes himself the most in Forensic Medicine shall receive £30 per annum for the next two years, with the style of University Scholar in Forensic Medicine. Under the same circumstances, the First and Second Candidates in each of the preceding subjects shall each receive a gold medal of the value of £5.

MASTER IN SURGERY.

The Examination for the Degree of Master in Surgery takes place once in each year, and commences on the first Monday in March. No Candidate is admitted to this Examination unless he have produced Certificates to the following effect:—1. Of having taken the Degree of Bachelor of Medicine in this University. 2. Of having attended a Course of Instruction in Operative Surgery, and of having operated on the Dead Subject. 3. Of having, subsequently to having passed the First M.B. Examination, attended to Practical Surgery, with special charge of Patients, in a Hospital, Infirmary, Dispensary, or Parochial Union, during six months.

These Certificates must be transmitted to the Registrar at least fourteen days before the Examination begins.

The fee for this Examination is £5.

The Examination includes Surgical Anatomy; performance

(c) See Note (a), p. 297.

(d) Any Candidate is allowed, if he so prefer, to postpone his Examination in Physiology from the First M.B. Examination at which he presents himself for examination in the remaining subjects until the First M.B. Examination in the next or any subsequent year; but such Candidate is not admitted to compete for Honours on either occasion; and is not admitted as a Candidate at the Second M.B. Examination until after the lapse of at least twelve months after having passed his Examination in Physiology.

of Surgical Operations upon the Dead Subject; application of Surgical Apparatus; and a report on Cases of Surgical Patients.

EXAMINATION FOR HONOURS.

Any Candidate who has passed the M.S. Examination may be examined for Honours in Surgery.

If in the opinion of the Examiners sufficient merit be evinced, the Candidate who distinguishes himself the most in Surgery shall receive £50 per annum for the next two years, with the style of University Scholar in Surgery.

Under the same circumstances, the First and Second Candidates shall each receive a Gold Medal of the value of £5.

DOCTOR OF MEDICINE.

The Examination for the Degree of Doctor of Medicine takes place once in each year, and commences on the fourth Monday in November. No Candidate is admitted to this Examination unless he have produced Certificates to the following effect:—1. Of having taken the Degree of Bachelor of Medicine in this University. 2. Of having attended, subsequently to having taken the Degree of Bachelor of Medicine in this University: *a*. To Clinical or Practical Medicine during two years in a Hospital or Medical Institution recognised by this University. *b*. Or, to Clinical or Practical Medicine during one year in a Hospital or Medical Institution recognised by this University, and of having been engaged during three years in the practice of his Profession. *c*. Or, of having been engaged during five years in the practice of his Profession, either before or after taking the Degree of Bachelor of Medicine in this University. One year of attendance on Clinical or Practical Medicine, or two years of Practice, will be dispensed with in the case of those Candidates who at the Second Examination have been placed in the First Division. 3. Of moral character, signed by two persons of respectability.

These Certificates must be transmitted to the Registrar at least fourteen days before the examination begins.

The fee for the Degree of Doctor of Medicine is £5.(f)

Candidates are examined in the following subjects:—Logic and Moral Philosophy. (Candidates who have taken a Degree in Arts or in Science in this University, or in a University the Degrees granted by which are recognised by the Senate of this University, are exempted from this part of the Examination).(g) Medicine.

If in the opinion of the Examiners sufficient merit be evinced, the Candidate who distinguishes himself the most at the Examination for the Degree of Doctor of Medicine shall receive a Gold Medal of the value of £20.

UNIVERSITY OF DURHAM.

REGULATIONS RELATING TO MEDICAL STUDENTS.

1. No one shall be held to be a Student in Medicine who has not been registered in a Register kept for that purpose. No one shall be so registered unless he has passed the Registration Examination, or such other Examination as the Warden and Senate shall deem equivalent.

2. No grace for a Licence in Medicine shall be granted unless the petitioner is of the age of twenty-one years, has spent four years in Medical study since his registration at one or more of the following places, namely, Durham, Newcastle-upon-Tyne, or in some other Medical School approved by the University, and has passed two public Examinations. No one shall be admissible to the first of these Examinations unless he has spent four years at least in Medical study as above prescribed. No one shall be admissible to the second of these Examinations unless he has spent four years at least in Medical study as above prescribed, and has passed the first Examination.

3. No grace for the Degree of Bachelor of Medicine shall be granted unless the petitioner is a Licentiate in Medicine, and is of the standing of twenty-one terms (seven years) at least from the date of his registration or matriculation. No one, who is not a Bachelor of Arts, shall be admissible to the Degree of Bachelor of Medicine, unless he has kept three terms by residence at Durham, and has passed both the final Examination for the Degree of Bachelor of Arts, or an equivalent to it, and also the Examination for the Degree of Bachelor of Medicine.

4. No grace for the Degree of Doctor of Medicine shall be granted unless the petitioner is a Bachelor of Medicine of twenty-four terms at least (eight years') standing from his registration or matriculation, nor unless he has performed such exercises as the Warden and Senate require. This regulation shall be held to apply to those who are already Bachelors of Medicine. These regulations shall not (except by the desire of Students themselves) affect any Students in Medicine who were matriculated before October 1, 1861. These regulations shall not interfere with the power of the University to grant Degrees by Diploma to persons of sufficient standing and approved merit.

5. No grace for the Degree of Master in Surgery shall be granted unless the person is of the age of twenty-one years, has spent four years in Medical and Surgical study since his registration as a Student in Medicine, in some one or more of the following places, namely, Durham, Newcastle-upon-Tyne, or other Medical School approved by the University, and has passed two public Examinations. The first of these Examinations shall be the first Examination appointed for Students in Medicine. No one shall be admissible to it who has not spent two years in Medical and Surgical study, as above prescribed. The second of these Examinations shall be partly the same as that appointed for Students in Medicine, and partly different from it. No one shall be admissible to it who has not spent four years at least in Medical and Surgical study, as above prescribed, and passed the first Examination.

Regulations relating to persons now Students in Medicine at the Newcastle-upon-Tyne School of Medicine:—

1. Any Student in Medicine who has pursued his Medical studies in the Newcastle-upon-Tyne College of Medicine before the 1st day of August, 1861, and has been matriculated at the University of Durham before the same date, shall be entitled to count the time thus spent at Newcastle as if it had been spent after registration, provided he passes one of the ordinary Registration Examinations before October 31, 1862.

2. Any Student in Medicine who has spent two or more years in Medical study at Newcastle-upon-Tyne College of Medicine before the 1st day of August, 1861, and has been matriculated at the University of Durham before the same date, shall be admissible to the second and final Examination for a Licence in Medicine, or for the degree of Master in Surgery, without having passed the first Examination, provided he has passed one of the ordinary registration Examinations before October 31, 1862, and has completed four years of Medical study since his admission as a Medical Student at Newcastle.

Order of Senate relating to the Registration of Students in Medicine:—

1. The name of every Student in Medicine shall be placed on a Register kept by the Registrar of the University of Durham.

2. No one shall be registered unless he has produced to the Warden the requisite Certificates of Examination and character.

The requisite Certificate of Examination shall be a Certificate of his having passed either the Registration Examination appointed by the University of Durham, or any one of the Examinations named in the Minutes of the Medical Council for England.

The Registration Examination in Sacred and English History, English Grammar, Arithmetic, Geography, Latin, Euclid, French, Greek (the last three at the option of the Candidate), will take place on April 25 and September 19, 1865.

ROYAL COLLEGE OF PHYSICIANS, LONDON,

PALL-MALL EAST.

EXTRACTS FROM BYE-LAWS AND REGULATIONS.

Members.

Members of the College are alone eligible to the Fellowship.

All Candidates for the Membership of the College who have commenced their professional studies after September, 1861, must satisfy the Censors' Board that previously to the commencement of their professional studies they have obtained a degree in Arts from some University of the United Kingdom or of the Colonies, or from some other University specially recognised by the Medical Council, or that they have passed examinations equivalent to those required for a degree in Arts. All other Candidates for Membership are, before admission to the Professional Examination, examined on the subjects of general education by the President and Censors of the College.

(f) This fee will continue to be £10 to all such as, having taken their M.B. Degree under the former Regulations, have not paid the fee of £5 at the Preliminary Scientific Examination.

(g) The Degrees in Arts of all Universities in the United Kingdom are recognised by the Senate for this purpose.

Any person who does not dispense or supply medicine, and who shall have satisfied the College touching his knowledge of Medical and general science and literature, and who shall comply with the Bye-laws and regulations of the College, may be proposed to the College to be admitted a Member of the College.

Every Candidate for Membership under the last Bye-law shall furnish proof that he has attained the age of twenty-five years.

Every such Candidate shall produce a testimonial from a Fellow or Member of the College, satisfactory to the Censors' Board, to the effect that, as regards moral character and conduct, he is a fit and proper person to be admitted a Member of the College.

(Section 8.)—Every such Candidate shall produce proof of having passed an examination in the subjects of general education; and in the case of Candidates who shall have commenced their Professional studies after September, 1861, the examination in general education must have been passed before they commenced their Professional studies.

(Section 9.)—Every such Candidate (except such as shall be admissible under the provisions of Section 18) shall produce proof of his having been engaged in the study of Physic during a period of five years, of which four years at least shall have been passed at a Medical school or schools recognised by the College.

(Section 10.)—Every such Candidate (except such as shall be admissible under the provisions of Section 18) shall produce evidence satisfactory to the Censors' Board of his having studied the following subjects:—Anatomy, with dissections; Physiology; Chemistry, with Practical Chemistry; Materia Medica and Botany; Morbid Anatomy; Principles and Practice of Medicine; Principles and Practice of Surgery; Midwifery, and the diseases peculiar to Women and Children; Forensic Medicine; of his having attended diligently, during three years, the Medical practice, and during one year, the Surgical practice, of an Hospital containing at least 100 beds, and of his having served the office of clinical clerk during at least six months.

Every such Candidate who has prosecuted his studies abroad, whether in part or to the full extent required by the preceding Bye-law (except such as shall be admissible under the provisions of section 18), shall, nevertheless, bring proof of his having attended, during at least twelve months, the Medical practice of an Hospital in the United Kingdom containing 100 beds.

No such Candidate shall be admitted to Examination who is engaged in trade, or who dispenses medicine, or makes any engagement with a chemist, or any other person, for the supply of medicine, or who practises Medicine or Surgery in partnership, by deed or otherwise, so long as that partnership continues.

Every such Candidate (except in cases specially exempted under Sections 17 and 18) shall have given proof of his acquirements by written answers to questions placed before him, and shall have been examined *viva voce* at three separate meetings of the Censors' Board, and shall have been approved by the President and Censors, or by the major part of them, at each Examination.

Except so far as otherwise provided by Bye-law, the Candidate for Membership shall be examined in Physiology, in Pathology, and in Therapeutics, in three separate Examinations, by written questions, as well as *viva voce*, at three meetings of the Censors' Board. At, or in connection with, the second examination before the Censors' Board, the Candidate's knowledge of practical medicine shall be tested, by requiring him to examine persons labouring under disease, and to describe morbid specimens. At the commencement of the first *viva voce* examination, the Candidate may, if he think fit, declare in writing what honours have been conferred upon him, in regard to his knowledge of Literature, Science, or Medicine; and such declaration shall, if it seem fit to the Censors' Board, be recorded in the annals of the Collge.

(Section 17.)—Any such Candidate who has already obtained the Degree of Doctor or Bachelor of Medicine at a University in the United Kingdom, wherein the courses of study, and the Examinations to be undergone by the Students previously to graduation, shall have been adjudged by the Censor's Board to be entirely satisfactory, shall be exempt (if the Censors shall think fit) from all or any parts of the Examinations hereinbefore described, except such as relate to Pathology and Therapeutics. Every Candidate for the Membership will, however, be required to translate into English a passage from a Latin author, and he will have the opportunity of showing a knowledge of Greek, or of one or more of the modern European languages.

(Section 18.)—If any such Candidate who has attained the age of forty years, but has not fulfilled all the conditions required by Sections 8, 9, and 10, shall produce testimonials, not merely satisfactory as to his moral character and conduct and his general and Professional acquirements, but further, showing that he has improved the art or extended the science of Medicine, or has at least distinguished himself highly as a Medical Practitioner; the Censors' Board, having well weighed and considered these testimonials, may, if they see fit, submit them to the Fellows at a general meeting, and it shall be determined by the votes of the Fellows present, or of the majority of them, taken by ballot, whether the Candidate shall be admitted to Examination, which shall, in every such case, be as full and complete as the Censors may deem sufficient.

REGULATION RELATING TO CANDIDATES FOR THE MEMBERSHIP.

In the case of Candidates for Membership, who shall have commenced their Professional studies after September, 1864, the first Examination, comprising Anatomy, Physiology, Chemistry, and Materia Medica, shall not be undergone until after the termination of two years of Professional study at a recognised Medical School or Schools. Testimonial of proficiency in the subjects comprised in the first Examination granted by any Corporation or University, after a course of study and an Examination satisfactory to the Censors' Board, will be accepted in lieu of the first Examination conducted at the College.

The second and third Examinations, comprising Pathology and Therapeutics, shall not be undergone until after the completion of the required course of Professional study, and at least two years after the Candidate has passed the first Examination.

LICENTIATES.

The College, under its Charter, grants licences (which are not to extend to make the Licentiates Members of the Corporation) to persons who shall conform to the following Bye-laws and Regulations:—

Every Candidate for the College Licence (except in cases specially exempted) is required to produce satisfactory evidence to the following effect:—1. Of having attained the age of twenty-one years. 2. Of moral character. 3. Of having passed a preliminary Examination in the subjects of general education. 4. Of having been registered as a Medical Student by one of the Bodies named in Schedule (A) of the Medical Act. 5. Of having been engaged in Professional studies during four years, of which the first two years and one other year shall have been passed at a recognised Medical School or Schools, and of having attended the Medical Practice at a recognised Hospital or Hospitals, during two years of that period; and the Surgical Practice during twelve months; and of having been engaged during six months in the Clinical Study of Diseases peculiar to Women. The last of the four years of Professional study must be passed at a Medical School, Hospital, Infirmary, or Dispensary recognised by the College. 6. Of having studied the following subjects:—Anatomy (with Dissections) during two Winter Sessions of six months each; Physiology during two Winter Sessions of six months each; Chemistry during six months; Practical Chemistry during three months; Materia Medica during three months; Practical Pharmacy during three months; Botany during three months; Morbid Anatomy during six months, or certified attendance in the Post-mortem Room during the period of Clinical Study; Principles and Practice of Medicine during two Winter Sessions of six months each; Principles and Practice of Surgery during six months; Clinical Medicine during one Winter Session and one Summer Session, or nine months; Clinical Surgery during six months; Midwifery and the Diseases peculiar to Women during three months. A Certificate must also be produced of having attended not less than twenty Labours; Forensic Medicine during three months. 7. Of having passed the Professional Examinations.

Any candidate, being a "Registered Medical Practitioner," whose qualification or qualifications shall have been obtained before the first day of January, 1861, having been, with the consent of the College, admitted a candidate for the Licence, will be examined on the Principles and Practice of Medicine, Surgery, and Midwifery; but he will be exempted from such other parts of the Professional Examinations as his qualifications may seem to the Examiners to render in his case unnecessary.

Any Candidate, who has already obtained the Degree of Doctor or Bachelor of Medicine at a University, approved and recognised by the College, after a course of Study and an Examination satisfactory to the College, or who has already obtained the Licence of the Royal College of Physicians of Edinburgh, or of the King and Queen's College of Physicians in Ireland, after a course of study and an Examination satisfactory to the Examiners appointed by the College, shall be exempt from the First Part of the Professional Examination for the Licence.

The fee to be paid for the Licence to practise Physic as a Licentiate of the College is fifteen guineas.

No Fellow, Member, or Licentiate of the College shall assume the title of Doctor of Medicine, or use any other name, title, designation, or distinction implying that he is a Graduate in Medicine of a University, unless he be a Graduate in Medicine of a University.

Licentiates of this College shall not compound or dispense medicines except for patients under their own care.

No Licentiate of this College shall, by virtue of his Licence, represent himself as being a Fellow or Member of a College of Physicians.

THE PRELIMINARY EXAMINATION.

The Preliminary Examination will be held at the College in March and September on the fourth Tuesday and Wednesday in each month. Tuesday morning, ten to one. English and Latin. Wednesday morning, ten to one. English History and Modern Geography. Wednesday afternoon, two to five. Mathematics and Natural Philosophy.

The Preliminary Examination must be passed previously to the time of commencing studies at a Medical School; but in the case of Candidates who have commenced the prescribed course of Medical studies before the first day of October, 1861, the Examination in General Education may be passed at any time before the Examination for the Licence.

Every Candidate intending to present himself for the Preliminary Examination must give fourteen days' notice in writing to the Registrar of the College, and before he is admitted to the Examination he must pay a fee of two guineas. Should he fail to pass the Examination the fee will not be returned, but he may be admitted to a subsequent Preliminary Examination without the payment of an additional fee.

Testimonials of proficiency granted by the National Educational Bodies, according to the following list, with such additions as may from time to time be made, will be accepted by the Examiners as satisfactory, in lieu of the Preliminary Examination conducted at the College:—A Degree in Arts of any University of the United Kingdom, or of the Colonies, or of such other Universities as may be specially recognised, from time to time, by the Medical Council. Oxford Responsions or Moderations. Cambridge Previous Examinations. Matriculation Examination of the University of London. Oxford Middle Class Examinations, Senior. Cambridge Middle Class Examinations, Senior. Durham Middle Class Examinations, Senior. Durham Examinations for Students in Arts, in their second and first years. Durham Registration Examination for Medical Students. Dublin University Entrance Examination. Queen's University, Ireland, two years' Arts' course for the Diploma of Licentiate in Arts. Preliminary Examinations at the end of A.B. course. Middle Class Examinations. Matriculation Examinations. First Class Certificate of the College of Preceptors. Examination in Arts at Codrington College, Barbadoes. Second Class in Literature and Science of the Cape of Good Hope. An Examination established by any of the Bodies named in Schedule (A) of the Medical Act, approved by the Medical Council.

THE PROFESSIONAL EXAMINATION.

Every Candidate, before he is admitted to examination, will be required to sign a declaration, stating whether he has or has not been rejected within three months by any of the Examining Boards included in Schedule (A) of the Medical Act.

The examination is divided into two parts.(a) The first part, or primary examination, will be conducted as follows:—On the first day, evening, from seven to ten, by written questions on Anatomy and Physiology. Second day, afternoon, from one to four, by written questions on Chemistry, Materia Medica, and Practical Pharmacy. Evening, commencing at seven o'clock, *viva voce*, on the subjects stated above. The second part, or pass examination, will be conducted as follows:—On the first day, evening, from seven to ten, by written questions on the Principles and Practice of Medicine. Second day, morning—The Candidate's practical knowledge will be tested, by requiring him to examine persons labouring under Disease, either at the College or in the Medical Wards of an Hospital. Evening, from seven to ten, by written questions on Midwifery and the Diseases peculiar to Women, and on the Principles and Practice of Surgery. Third day, morning—The Candidate's practical knowledge will be tested, by requiring him to examine persons labouring under disease in the Surgical Wards of an Hospital. Evening, commencing at seven o'clock, *viva voce*, on the subjects stated above.

The first part of the Professional Examination shall not be undergone until after the termination of two years of professional study at a recognised Medical School, and the second part not until after the termination of four years of professional study, and at least eighteen months after the Candidate has passed the first examination, except in the case of Students who have commenced their Professional Education before October, 1851.

Any Candidate who shall fail to pass any of these Examination will not be re-admitted to Examination until after the lapse of six months.

Every Candidate intending to present himself for Examination, is required to give fourteen days' notice in writing to the Registrar of the College, at the same time transmitting the following certificates:—*For the first part.*—Evidence of having passed an Arts Examination; of having been duly registered as a Medical Student; and of having completed two years of Professional Study. *For the second part.*—Evidence of having completed four years of Professional Study; of having attended not less than twenty labours; and of having attained the age of twenty-one years. A testimonial of moral character is required of every Candidate.

Blank forms of the required Certificates of attendance on Hospital Practice and on Lectures may be obtained on application at the College.

The fee for admission to the first part of the Examination is £5 5s.; the fee for admission to the second part of the Examination is £10 10s.; and there is no further fee for the Licence.

(a) Examinations of candidates for the College licence will take place as follows:—1864. First part, commencing Tuesday, October 4 and December 6. Second part, commencing October 11 and December 13.—1865. First part, commencing February 7, April 4, June 6, July 4, October 3, and December 5. Second part, commencing February 14, April 11, June 13, July 11, October 10, and December 12.

ROYAL COLLEGE OF SURGEONS OF ENGLAND,

LINCOLN'S-INN-FIELDS.

ADMISSION TO THE FELLOWSHIP BY EXAMINATION.

1. Except in the cases and instances hereinafter provided for to the contrary, every Candidate for the Fellowship, whether a Member of the College or not, is required to produce Certificates satisfactory to the Court of Examiners,—That he is twenty-five years of age. That he is (if found qualified upon examination) a fit and proper person to be admitted to the Fellowship, which Certificate must be signed by three Fellows. That he has passed the preliminary Examination in Classics, Mathematics, and French appointed by the Council; or that he has passed in the University of Oxford, or Cambridge, or London, the Examination in Arts required in those Universities, respectively, of Candidates for their Degrees in Medicine. That he has been engaged for six years in the acquirement of Professional knowledge in recognised Hospitals or Schools, and that not less than three Winter and three Summer Sessions thereof have been passed in one or more of such Hospitals in London. That he has studied Anatomy and Physiology by attendance on Lectures and Demonstrations, and by Dissections, during three Winter Sessions of not less than six months each, at a recognised School or Schools. That he has attended Lectures on the Theory and Practice of Medicine and on Clinical Medicine; and also on the Theory and Practice of Surgery and on Clinical Surgery, during two sessions of not less than six months each, at recognised Schools and Hospitals. That he has attended one course of Lectures on each of the following subjects, viz.: Chemistry, Materia Medica, Midwifery, with attendance on Cases, Medical Jurisprudence, and Comparative Anatomy, at one or more recognised School or Schools. That he has attended the Surgical Practice of a recognised Hospital or Hospitals during four Winter and four Summer Sessions, and the Medical Practice of a recognised Hospital or Hospitals during one Winter and one Summer Session. And that he has served the office of House-Surgeon or Dresser in a recognised Hos-

pital in the United Kingdom. He is also required to present Clinical Reports with observations thereon of six Surgical Cases taken by himself at one or more recognised Hospital or Hospitals in the United Kingdom, with satisfactory evidence of their authenticity and genuineness.

2. In the case of a Candidate who has taken by Examination the Degree of Bachelor or Master of Arts in any University in the United Kingdom, it will be sufficient to produce a Certificate that he has been engaged for five years (instead of six years) in the acquirement of Professional knowledge in recognised Hospitals or Schools, but in all other respects he must produce the Certificates of the foregoing Course of study.

3. Any person who was a Member of the College on the 14th of September, 1844, will be admitted to examination for the Fellowship upon the production of a Certificate signed by three Fellows, that he has been eight years in the practice of the Profession of Surgery, and that he is a fit and proper person to be admitted a Fellow, if upon examination he shall be found qualified.

4. Any person who shall have become a Member of the College after the said 14th of September, 1844, will, after the expiration of twelve years from the date of the Diploma, be admitted to examination for the Fellowship upon the production of a Certificate, signed by three Fellows, that he has been for twelve years in the practice of the Profession of Surgery, and that he is a fit and proper person to be admitted a Fellow, if upon examination he shall be found qualified.

The Preliminary Examination in Classics, Mathematics, and French is held in the month of October, and, if required, in the month of April; to which candidates are admitted upon having completed the eighteenth year of their age, and on the payment of the fee of Ten Guineas. The Professional Examination is held in the months of May and November, and occupies two days, either successive, or at such interval as the Court of Examiners may appoint. The subjects of the first day's Examination are Anatomy and Physiology; those of the second day, Pathology, Therapeutics, and Surgery: the Candidate has to perform dissections or operations on the dead body. A Candidate whose qualifications shall be found insufficient upon his Professional Examination, will not be allowed to present himself a second time until after the expiration of one year from such Examination.

The following are the Subjects of the Preliminary Examination of the Candidates for the Fellowship of this College during the year 1865, viz.:—

Classics.—Demosthenes, De Corona, down to the end of Chapter 205; Sophocles, Antigone and Ajax; Tacitus, Histories, Books I. and II.; Virgil, Æneid, Books V. and VI. Each Candidate is required to bring up one of the above Greek and one of the above Latin authors; one prose writer, and one poet.

Mathematics.—Arithmetic; Algebra, as far as to include the doctrine of Proportion; and Simple Equations with one or two unknown quantities; Euclid, Books I., II., and III.; Statics, Hydrostatics, Optics, and Acoustics.

French.—Translation and parsing of a passage in two of the following works, at the option of the Candidate: "La Henriade," Voltaire; "Etudes de la Nature," Bernardin de St. Pierre; "Les Girondins," Lamartine.

REGULATIONS RESPECTING THE EDUCATION OF CANDIDATES FOR THE DIPLOMA OF MEMBER OF THE COLLEGE.

I. *Preliminary General Education and Examination.*—Candidates who commenced their Professional education on or after January 1, 1861, will be required to produce one or other of the following Certificates:—1. Of Graduation in Arts at a University recognised for this purpose. The following are the Universities at present recognised—viz., Oxford, Cambridge, Dublin, London, Durham, Queen's University in Ireland, Edinburgh, Glasgow, Aberdeen, and St. Andrew's; Calcutta, Madras, and Bombay; Canada: McGill College, Montreal, and Queen's College, Kingston. 2. Of having passed an Examination for Matriculation, or such other Examination as shall, in either case, from time to time be sanctioned by the Council of this College, at a University in the United Kingdom, or at a Colonial or Foreign University recognised by the Council of this College. The following are the Examinations at present recognised under this Clause (No. 2)—viz., Oxford: Responsions or Moderations; Middle-Class Examinations, Senior. Cambridge: Previous Examination; Middle-Class Examinations, Senior. Dublin: Entrance Examination. London: Matriculation Examination. Durham: Examination of Students in Arts in their second and first years; Middle-Class Examinations, Senior; Registration Examination for Medical Students. Queen's University in Ireland: Two years' Arts Course for Diploma of Licentiate in Arts; Preliminary Examinations at end of B.A. Course; Middle-Class Examinations; Matriculation Examinations. Queen's College, Belfast: Preliminary Examination for non-Matriculated Students. Edinburgh: Extra Professional Examination for Graduation in Medicine. Calcutta, Madras, and Bombay: Matriculation Examinations. McGill College, Montreal: Preliminary Examination in General Literature. Queen's College, Kingston, Canada: Matriculation Examination; Preliminary Examination of Students in Medicine. University College, Toronto, Canada: Matriculation Examination. 3. Of having passed the Preliminary Examination of the Royal College of Physicians of London. 4. Of having passed the Preliminary Examination for the Fellowship of this College. 5. Of having passed the Preliminary Examination of the Royal College of Surgeons in Ireland. 6. Of having passed the Preliminary Examination of the Royal College of Surgeons of Edinburgh. 7. Of having passed the Preliminary Examination of the Faculty of Physicians and Surgeons of Glasgow. 8. Of having passed the Examination in Arts of the Society of Apothecaries of London. 9. Of having passed the First-Class Examination of the Royal College of Preceptors. 10. Testamur of the Codrington College, Barbadoes. 11. Degree of Associate of Arts granted by the Tasmanian Council of Education, with a certificate that the Student has been examined in Latin and Mathematics. 12. Candidates who shall not be able to produce one or other of the foregoing Certificates will be required to pass an Examination in English, Classics, and Mathematics, conducted by the Board of Examiners of the Royal College of Preceptors, under the direction and supervision of the Council of this College.

The following are the subjects of the Examination (No. 12) during the years 1864 and 1865—viz., Part I.—Compulsory Subjects.—1. Reading aloud a passage from some English author. 2. Writing from dictation. 3. English Grammar. 4. Writing a short English composition. 5. Arithmetic. 6. Geography. 7. Questions on the outlines of English History. 8. Euclid, Books I. and II. 9. Translation of a passage from the first book of Cæsar's Commentaries, "De Bello Gallico." Part II.—Papers will also be set on the following seven subjects; and each Candidate will be required to offer himself for examination on one subject at least, at the option of the Candidate; but no Candidate will be allowed to offer himself for examination on more than four subjects:—1. Translation of a passage from St. John's Gospel in Greek. 2. Translation of a passage from Voltaire's "Histoire de Charles XII." 3. Translation of a passage from the first two books of Schiller's "Geschichte des dreissigjährigen Krieges." Besides these Translations into English, the Candidate will be required to answer questions on the Grammar of each subject, whether compulsory or selected. 4. Mathematics. Algebra to Simple Equations inclusive. 5. Mechanics. The questions will be chiefly of an elementary character. 6. Chemistry. The questions will be on the elementary facts of Chemistry. Botany and Zoology. The questions will be on the classification of Plants and Animals. The quality of the handwriting and the spelling will be taken into account.

II. *Professional Education.*—I. Professional studies are not recognised prior to the date at which the Candidate shall have passed an Examination in General Knowledge in conformity with the Regulation in the preceding Section.(a)

II.—The following will be considered as the commencement of Professional Education:—1. Attendance on the Practice of a Hospital, or other Public Institution recognised by this College for that purpose. 2. Instruction as the Pupil of a legally qualified Surgeon, *holding the appointment of Surgeon to a Hospital, General Dispensary, or Union Workhouse, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council.* 3. Attendance on Lectures on Anatomy, Physiology, or Chemistry, by Lecturers recognised by this College. *The commencement of Professional study, otherwise than by attendance on Lectures in recognised Medical Schools, or by attendance on the Practice of recognised Hospitals, will not be admitted until a Certificate thereof shall be furnished to the Secretary for registration at the College by the Practitioner whose Pupil the Candidate shall have become, or by the Medical Superintendent of the Hospital or other Institution to the practice of which he shall have entered; and will, consequently, date only from the reception of such Certifi-*

(a) This Regulation applies to Candidates who commenced their Professional Education on or after October 1, 1862.

cate by the Secretary, the Certificate to be accompanied by proof of having passed the necessary Preliminary Examination in General Knowledge.

III. Candidates will be required to produce the following other Certificates—viz., 1. Of being twenty-one years of age. 2. Of having been engaged during four years in the acquirement of Professional knowledge. 3. Of having studied Practical Pharmacy during three months. 4. Of having attended Lectures on Anatomy, delivered not less frequently than four times in each week, during two Winter Sessions. 5. Of having performed Dissections during not less than two Winter Sessions. 6. Of having attended Lectures on Physiology delivered not less frequently than twice in each week, during two Winter Sessions. 7. Of having attended Lectures on Surgery during two Winter Sessions, *of which one Course must not be earlier than the third Winter Session at a recognised Medical School.* 8. Of having attended one Course of Lectures on each of the following subjects, viz., Chemistry, Materia Medica, Medicine, and Midwifery. 9. Of Instruction and Proficiency in the Practice of Vaccination. 10. Of having attended, at a recognised Hospital or Hospitals in the United Kingdom or Colonies, the Practice of Surgery, and Clinical Lectures on Surgery, during three Winter (a) and two Summer(b) Sessions. 11. Of having attended, at a recognised Hospital or Hospitals in the United Kingdom or Colonies, the Practice of Medicine, and Clinical Lectures on Medicine, during one Winter and one Summer Session. 12. *Of having subsequently to the completion of two years' Professional Education taken charge of Patients under the superintendence of a Surgeon during not less than Six months, at a Hospital, General Dispensary, or Parochial or Union Infirmary recognised for this purpose, or, in such other similar manner as, in the opinion of the Council, shall afford sufficient opportunity for the acquirement of Practical Surgery.*

N.B.—Blank forms of the required Certificates may be obtained on application to the Secretary, and all such Certificates will be retained at the College.

III.—1. Certificates will not be received on more than one branch of Science from one and the same Lecturer; but Anatomy and Dissections will be considered as one branch of Science.

2. Certificates will not be recognised from any Hospital in the United Kingdom unless the Surgeons thereto be members of one of the legally constituted Colleges of Surgeons in the United Kingdom; nor from any School of Anatomy and Physiology or Midwifery, unless the Teachers in such School be members of some legally constituted College of Physicians or Surgeons in the United Kingdom; nor from any School of Surgery, unless the Teachers in such School be members of one of the legally constituted Colleges of Surgeons in the United Kingdom.

3. No Metropolitan Hospital will be recognised by this College which contains less than 150, and no Provincial or Colonial Hospital which contains less than 100 patients.

4. The recognition of Colonial Hospitals and Schools is governed by the same Regulations, with respect to number of Patients and to Courses of Lectures, as apply to the recognition of Provincial Hospitals and Schools in England.

5. Certificates of Attendance upon the practice of a recognised Provincial or Colonial Hospital unconnected with, or not in convenient proximity to, a recognised Medical School, will not be received for more than one Winter and one Summer Session of the Hospital Attendance required by the Regulations of this College; and in such cases Clinical Lectures will not be necessary, *but a Certificate of having acted as Dresser for the period of at least Six months will be required.*

6. Certificates will not be received from Candidates who have studied in London, unless they shall have registered at the College their cards of admission to attendance on Lectures and Hospital Practice within fifteen days from the commencement of the Session; nor from Candidates who have studied in the Provincial Schools of England, unless their names shall be duly returned from their respective Schools.

N.B.—At the registration in October, Candidates who shall have commenced their Professional Education subsequently to the 1st of October, 1862, will be required to produce a Certificate of having passed one or other of the Preliminary Examinations in General Knowledge recognised by this College.

NOTE.—*The Regulations in italics apply to Candidates in the United Kingdom who commenced their Professional Education on or after the 1st of October, 1863; and to Candidates who shall commence their Professional Education in the Colonies on or after the 1st of October, 1864.*

7. Those Candidates who shall have pursued the whole of their studies in Scotland or Ireland will be admitted to examination upon the production of the several Certificates required respectively by the College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, and the College of Surgeons in Ireland from Candidates for their Diploma, together with a Certificate of instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied at least four entire years in the acquirement of Professional knowledge; and in the case of Candidates who shall have pursued the whole of their studies at recognised Foreign or Colonial Universities, upon the production of the several Certificates required for their Degree by the authorities of such Universities, together with a Certificate of Instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied at least four entire years in the acquirement of Professional knowledge.

8. Members or Licentiates of any legally constituted College of Surgeons in the United Kingdom, and Graduates in Surgery of any University recognised for this purpose by this College, will be admitted to examination on producing their Diploma, Licence, or Degree, together with proof of being twenty-one years of age, a Certificate of instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied at least four entire years in the acquirement of Professional knowledge.

9. Graduates in Medicine of any legally constituted College or University recognised for this purpose by this College, will be admitted to examination on adducing, together with their Diploma or Degree, proof of being twenty-one years of age, a Certificate of instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied at least four entire years in the acquirement of Professional knowledge.

IV. *Professional Examination.* — This Examination is divided into two parts. 1. The First, or Primary Examination, on Anatomy and Physiology, is partly written and partly demonstrative on the recently dissected Subject, and on prepared parts of the Human body. 2. The Second or Pass Examination, on Pathology, Surgery, and Surgical Anatomy, is partly written and partly oral. 3. The Primary Examinations are held in the months of January, April, May, July, and November, and the Pass Examinations generally in the ensuing week respectively. 4. Candidates will not be admitted to the Primary or Anatomical and Physiological Examination until after the termination of the second Winter Session of their attendance at a recognised School or Schools; nor to the Pass, or Pathological and Surgical Examination, until after the termination of the fourth year of their Professional education. 5. The fee of Five Guineas paid by each Candidate prior to his Primary Examination will not be returned, but will be allowed in the fee on his admission as a member. 6. A Candidate having entered his name for either the Primary or Pass Examination, who shall fail to attend the meeting of the Court for which he shall have received a card, will not be allowed to present himself for examination within the period of three months from the date at which he shall have so failed to attend. 7. A Candidate referred on the Primary Examination is required, prior to his admission to re-examination, to produce a Certificate of the performance of dissections during not less than three months, subsequently to the date of his reference. 8. A Candidate referred on the Pass Examination is required, prior to his admission to re-examination, to produce a Certificate of at least six months' further attendance on the Surgical Practice of a recognised Hospital, together with Lectures on Clinical Surgery, subsequently to the date of his reference.

(a) The Winter Session comprises a period of six months, and, in England, commences on the 1st of October, and terminates on the 31st of March.

(b) The Summer Session comprises a period of three months, and, in England, commences on the 1st of May, and terminates on the 31st of July.

THE SOCIETY OF APOTHECARIES.

BLACKFRIARS, E. C.

REGULATIONS, ETC.

Every Candidate for a certificate of qualification to practise as an Apothecary will be required to produce testimonials.

1. Of having passed a Preliminary Examination in Arts as a test of General Education.

This Examination must be passed before the commencement of Professional studies, which is defined by the Medical Council "to be the time of commencing studies at a Medical School."

2. Of having served an apprenticeship or pupilage of not less than five years to a Practitioner qualified by the Act of 1815. N.B.—This period may include the time spent in attending Lectures and Hospital Practice.

3. Of having attained the full age of twenty-one years:—As evidence of age, a copy of the baptismal register will be required in every case where it can possibly be procured.

4. Of good moral conduct.

5. And of having pursued a course of Medical study in conformity with the regulations of the Court.

COURSE OF STUDY.

Every Candidate whose attendance on Lectures shall commence on or after the 1st October, 1863, must attend the following Lectures and Medical Practice during not less than three winter and three summer sessions: each winter session to consist of not less than six months, and to commence not sooner than the 1st nor later than the 15th of October; and each summer session to extend from May 1 to July 31.

First Year.—Winter Session.—Chemistry; Anatomy and Physiology; Dissections. Summer Session.—Botany; Materia Medica and Therapeutics; Practical Chemistry.(a)

Second Year.—Winter Session.—Anatomy and Physiology, including Dissections and Demonstrations; Principles and Practice of Medicine; Clinical Medical Practice. Summer Session.—Midwifery and Diseases of Women and Children.(b) Forensic Medicine and Toxicology; Clinical Medical Practice.

Third Year.—Winter Session.—Principles and Practice of Medicine; Clinical Medical Lectures; Morbid Anatomy; Clinical Medical Practice. Summer Session.—Practical Midwifery and Vaccination;(b) Morbid Anatomy; Clinical Medical Practice.

Registration of Testimonials.—All testimonials must be given on a printed schedule, and the blanks therein must be filled up by the Lecturers themselves. Students will be supplied with schedules at the time of their first registration:—In London, at the Hall. In the Provincial towns, from the gentlemen who keep the Registers of the Medical Schools, and whose names may be known by application to the Secretary of this Court. All Students, in London, are required personally to register the several classes for which they have taken tickets; and those only will be considered as complying with the regulations of the Court whose names and classes in the Register correspond with their schedules. Tickets of admission to Lectures and Medical Practice must be registered in the months of October and May. Due notice of the days and hours of such registrations will be given from time to time. The Court also require Students at the Provincial Medical Schools to register their names, in their own handwriting, with the Registrar of each respective School, within the first fifteen days of October and first fifteen days of May.

Examination in Arts.—An Examination in Arts will take place at the Hall three times in the year, viz., on the last Friday and Saturday in the months of January, April, and September. N.B.—By order of the Medical Council, an Examination in Arts is compulsory on all gentlemen commencing their studies on or after October 1, 1861, and must be passed previous to registration. Testimonials of proficiency in General Education will be received, as exempting from the Examination in Arts at this Hall from the following National Educational Bodies, and also from any of the Licensing Bodies under the Medical Act of 1858, viz.:—The Royal College of Physicians, London; the Royal College of Physicians, Edinburgh; the King and Queen's College of Physicians, Ireland; the Royal College of Surgeons, England; the Royal College of Surgeons, Edinburgh; the Faculty of Physicians and Surgeons of Glasgow; the Royal College of Surgeons, Ireland; and the Society of Apothecaries, London. A Degree in Arts of any University of the United Kingdom, or of the Colonies, or of such other Universities as may be specially recognised from time to time by the Medical Council. Oxford Responsions or Moderations. Cambridge Previous Examinations. Matriculation Examination of the University of London. Oxford Middle Class Examinations (senior). Cambridge Middle Class Examination (senior). Durham Middle Class Examination (senior). Durham Examinations for Students in Arts, in their second and first years. Durham Registration Examination for Medical Students. Dublin University Entrance Examination. Queen's University, Ireland, two years' Arts' Course for the Diploma of Licentiate in Arts. Preliminary Examinations at the end of A.B. course. Middle Class Examinations. Matriculation Examinations. First Class Certificate of the College of Preceptors. "Testamur" granted by Codrington College, Barbadoes. Degree of Associate of Arts granted by the Tasmanian Council of Education, with a Certificate that the Student has been examined in Latin and Mathematics.

Professional Examinations.—The Court of Examiners meet in the Hall every Thursday, where Candidates are required to attend at a quarter before four o'clock. Every person intending to offer himself for Examination must give notice in writing to the Clerk of the Society on or before the Monday previous to the day of Examination, and must at the same time deposit all the required testimonials (as before specified) with the fee at the office of the Beadle, where attendance is given every day, except Sunday, from ten to four o'clock; Saturday, ten to two o'clock. The examination of Candidates is divided into two parts, and is conducted partly in writing and partly *viva voce*.

First Examination, which may be passed after the Second Winter Session, embraces the following subjects:—The British Pharmacopœia; Latin of Physicians' Prescriptions; Anatomy and Physiology; General and Practical Chemistry; Botany and Materia Medica.

Second Examination, after the Third Summer Session (the five years' pupilage being completed):—Practice of Medicine and Pathology; Midwifery, including the Diseases of Women and Children; Forensic Medicine and Toxicology.

The Court of Examiners have determined that all Graduates in Medicine of a British University be in future admitted to a practical Examination in the Practice of Medicine and Midwifery only.

The Examination of Candidates for certificates of qualification to act as Assistant, in compounding and dispensing medicines will be as follows:—In translating Physicians' Prescriptions; on the British Pharmacopœia; in Pharmacy and Materia Medica.

By the 22nd section of the Act of Parliament, no rejected Candidate can be re-examined until the expiration of six months from his former Examination; and no rejected Candidate as an Assistant until the expiration of three months.

Fees.—For a Certificate of Qualification to practise, six guineas; for an Assistant's Certificate, two guineas.

Students' Prizes.—The Society of Apothecaries annually offer two prizes for proficiency in the knowledge of Botany, and also two prizes for proficiency in the knowledge of Materia Medica and Pharmaceutical Chemistry.

The prizes consist of a Gold Medal awarded to the Candidate who distinguishes himself the most in the examination; and of a Silver Medal and a Book to the Candidate who does so in the next degree.

(a) By Practical Chemistry is intended a *specific* course of Instruction in the Laboratory, with an opportunity of Personal Manipulation in the ordinary processes of Chemistry, and of acquiring a knowledge of the various Reagents for Poisons.

(b) A Certificate of attendance on not less than twenty cases will be received from a legally qualified Practitioner.

ARMY MEDICAL DEPARTMENT.

WHITEHALL-YARD.

QUALIFICATIONS AND EXAMINATION OF CANDIDATES FOR COMMISSIONS IN THE ARMY MEDICAL SERVICE.

1. Every Candidate desirous of presenting himself for admission to the Competitive Examination required for the Army Medical Service must be unmarried. He must produce a birth certificate from the District Registrar, or a certificate of baptism in which the date of birth is stated; or if neither of these can be obtained, an affidavit from one of the parents, or from some other near relative who can attest the date of birth, will be accepted. The certificate or affidavit must show that the Candidate is not above 26 (a) nor under 21 years of age. He must also produce certificates of moral conduct and character, one of them from the parochial minister if possible.

2. The candidate must make a declaration that he labours under no mental or constitutional disease, nor any imperfection or disability that can interfere with the most efficient discharge of the duties of a Medical officer in any climate. He

(a) For the examination in February, 1865, the limit of age has been extended to 30.

must also attest his readiness to engage for general service immediately on being gazetted.

3. The Candidate must possess a Diploma in Surgery, or a licence to practise it, as well as a Degree in Medicine, or a licence to practise it in Great Britain or Ireland.

4. Degrees, diplomas, licences, and certificate of their registration in accordance with the Medical Act of 1858, and certificate of character, must be lodged at the Army Medical Department for examination and registry, at least one week before the Candidate appears for examination.

5. On producing the foregoing qualifications, the Candidate will be examined by the Examining Board in the following subjects :—Anatomy and Physiology, Surgery, Medicine, including Therapeutics, the Diseases of Women and Children, Chemistry and Pharmacy, and a practical knowledge of drugs. (The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of Surgical Apparatus, and the examination of Medical and Surgical patients at the bedside.) The eligibility of each Candidate for the Army Medical Service will be determined by the result of the examinations in these subjects only. Candidates *who desire it* will be examined in Comparative Anatomy, Zoology, and Botany, with special reference to Materia Medica, and the number of marks gained in these subjects will be added to the total number of marks obtained in the obligatory part of the Examination by Candidates who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of these branches of Science.

6. The names of Candidates who pass the Preliminary Examination of the Examining Board will be sent to the Director-General and communicated to the Professors of the Army Medical School. The names will be arranged in the following Classes :—

Class I.—Names of those who have passed a pre-eminently distinguished examination, arranged in their order of merit. Characters which distinguish the excellence of each. Fitness for special service.

Class II.—Names of those who have passed a creditable examination, arranged in alphabetical order. Statement of the topics in which each has individually excelled or fallen short.

Class III.—Names of Candidates who have passed the minimum examination, arranged in alphabetical order. Statement of the particular branches of science in which each has been found to be deficient.

This information will enable the Professors of the Army Medical School to carry out their instructions with a definite aim as regards each Class.

7. After passing his Preliminary Examination, every Candidate will be required to attend one entire Course of Practical Instruction at the Army Medical School before being admitted to his examination for a Commission, on (1) Hygiene, (2) Clinical and Military Medicine, (3) Clinical and Military Surgery, (4) Pathology of Diseases and Injuries incident to Military Service. These Courses to be of not less than four months' duration.

8. At their conclusion the Candidate will be required to pass an examination on the subjects taught in the School. The examination will be conducted by the Professors of the School. The Director-General, or any Medical officer deputed by him, may be present and take part in the examination. If the Candidate give satisfactory evidence of being qualified for the practical duties of an Army Medical officer he will be eligible for a Commission as Assistant-Surgeon.

9. During the period of his residence at the Army Medical School each Candidate will receive an allowance of 5s. per diem, with quarters, or 7s. per diem without quarters, to cover all costs of maintenance ; and he will be required to provide himself with uniform (viz., the Regulation undress uniform of an Assistant-Surgeon, but without the sword).

10. All Candidates will be required to conform to such rules of discipline as the Senate may from time to time enact.

The Assistant-Surgeon is subjected to three separate Examinations within the first ten years of his service, each Examination having a definite object. The first, to ascertain, previous to his admission into the Service as a Candidate, his scientific and Professional education, and to test his acquirements in the various branches of Professional knowledge. The second, after having passed through a course of special instruction in the Army Medical School, to test his knowledge of the special duties of an Army Medical Officer ; and the third, previous to his promotion, to ascertain that he has kept pace with the progress of Medical Science.

NAVY MEDICAL DEPARTMENT.

ADMIRALTY, SOMERSET HOUSE.

REGULATIONS FOR CANDIDATES FOR THE OFFICE OF ASSISTANT-SURGEON IN THE ROYAL NAVY.

A Candidate for entry into the Royal Navy shall make a written application to that effect, addressed to the Secretary of the Admiralty ; on the receipt of which application he will be furnished with the Regulations and a printed form, to be filled up by him, to show if he possesses the required qualifications.

As vacancies occur, the number of Candidates required will be ordered to attend at the Admiralty Office, bringing with them the requisite certificates, showing that they are fully qualified by age, Professional ability, etc., when they will be examined by a Board of Medical officers, to be named by their Lordships.

That no person be admitted as an Assistant-Surgeon in the Royal Navy who shall not produce a certificate of being registered under the Medical Act, and a Diploma from one of the Royal Colleges of Surgeons of England, Edinburgh, or Dublin, from the Faculty of Physicians and Surgeons of Glasgow, from Trinity College, Dublin, or from other Corporate Body legally entitled to grant a diploma in Surgery ; nor as a Surgeon unless he shall produce a certificate from one of the said Colleges, Faculty, or Corporate Body, founded on an examination to be passed subsequent to his appointment of Assistant-Surgeon as to his fitness for the situation of Surgeon in the Navy ; and in every case the person producing such Diploma and Certificate shall also undergo a further examination, touching his qualifications in all the necessary branches and points of Medicine and Surgery, both at the time of his entry and after serving three years to render himself eligible for Surgeon ; and that previously to the admission of Assistant-Surgeons into the Navy, it will be required that they produce proof of having received a preliminary classical education, and that they possess, in particular, a competent knowledge of Latin ; also

That they are of good moral character ; the certificate of which must be signed by the clergyman of the parish, or by a magistrate of the district.

That they have served an apprenticeship, or have been engaged for not less than six months in Practical Pharmacy.

That their age be not less than twenty years, or more than twenty-six years.

That they have actually attended a recognised Hospital for eighteen months subsequently to the age of eighteen, in which Hospital the average number of patients is not less than one hundred.

That they have been engaged in actual dissections of the human body twelve months, the certificate of which from the teacher must state the number of subjects or parts dissected by the Candidate.

That they have attended Lectures, etc., on the following subjects, at established schools of eminence, by Physicians or Surgeons of the recognised Colleges of Physicians and Surgeons, in the United Kingdom, for periods not less than hereunder stated ; observing, however, that such Lectures will not be admitted if the teacher shall lecture on more than one branch of science, or if the Lectures on Anatomy, Surgery and Medicine be not attended during Winter Sessions of six months each :—Anatomy 18 months ; or General Anatomy 12 months, and Comparative Anatomy 6 months. General Surgery 12 months, or Military Surgery 6 months, and General Surgery 6 months. Theory of Medicine 6 months, Practice of Medicine 6 months ; if the Lectures on the Theory and Practice of Medicine be given in conjunction, then the period required is 12 months. Clinical Lectures (at an Hospital as above) 12 months ; on the Practice of Medicine 6 months, on the Practice of Surgery 6 months. Chemistry 6 months ; or Lectures on Chemistry 3 months, and Practical Chemistry 3 months. Materia Medica, 6 months. Midwifery 6 months, accompanied by certificates stating the number of Midwifery caaes personally attended. Botany 3 months.

A favourable consideration will be given to Candidates who have obtained the degree of M.D. at either of the Universities of Oxford, Cambridge, Edinburgh, Dublin, Glasgow, London, or Aberdeen ; or who, by possessing a knowledge of the diseases of the eye, and of any branch of science connected with the Profession, such as Medical Jurisprudence, Natural History, Natural Philosophy, etc., appear to be more peculiarly eligible for admission into the service.

By the rules of the service, no Assistant-Surgeon can be promoted to the rank of Surgeon until he shall have served five years (two years of which must be in a ship actually employed at sea), and can produce a certificate from one of the before-mentioned Colleges, Faculty, or Corporate Body; and it is resolved that not any certificate of Examination from any of the aforesaid Institutions shall be admitted toward the qualification for Surgeon, unless the certificate shall be obtained on an Examination passed after a period of not less than three years' actual service; observing, that no one can be admitted to an Examination for Surgeon, unless, as herein before mentioned, he can produce a certificate, together with the most satisfactory proof, that he has performed, on the dead body, under the superintendence of a professor or teacher of known eminence, all the capital operations of Surgery, and is perfectly competent to perform any operation with skill and dexterity, and thoroughly acquainted with the anatomy of the parts involved in such operation; without which qualification no one hereafter can be promoted to the higher branches of the service; and whenever Assistant-Surgeons already in the service (whose Professional education may not be in accordance with the above) obtain leave to study previously to their passing for Surgeon, they will be required, on their Examination, to produce testimonials of their having availed themselves of the period of leave to complete their education agreeably to these regulations generally.

RULES AND REGULATIONS
OF THE
EXAMINING MEDICAL BODIES IN SCOTLAND.

UNIVERSITY OF EDINBURGH.

STATUTES RELATIVE TO GRADUATION IN MEDICINE.

I. Three Medical Degrees are conferred by the University of Edinburgh, viz., Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). The Degree of Master in Surgery is not conferred on any person who does not also at the same time obtain the Degree of Bachelor of Medicine.

II. The preliminary branches of Extra-Professional Education are English, Latin, Arithmetic, the Elements of Mathematics, and the Elements of Mechanics; and the proficiency of Students in these branches is ascertained by examination, as far as possible, prior to the commencement of their Medical study.

III. No Candidate is admitted to a Professional Examination who has not passed a satisfactory Examination on at least two of the following subjects, in addition to the subjects mentioned above:—Greek, French, German, Higher Mathematics, Natural Philosophy, Logic, Moral Philosophy; and the Examination on these latter subjects also takes place, as far as possible, before the Candidate has entered on his Medical Curriculum.

IV. A Degree in Arts (not being an Honorary Degree) in any one of the Universities of England, Scotland, or Ireland, or in any Colonial or Foreign University, specially recognised for this purpose by the University Court, exempts from all Preliminary Examination.

V. No one is admitted to the Degree of Bachelor of Medicine or Master in Surgery who has not been engaged in Medical and Surgical study for four years,—the Medical Session of each year, or *Annus Medicus*, being constituted by at least two Courses of not less than 100 Lectures each, or by one such Course, and two Courses of not less than 50 Lectures each, with the exception of the Clinical Courses, in which Lectures are to be given at least twice a-week during the prescribed periods.

VI. Every Candidate for the Degrees of M.B. and C.M. must give sufficient evidence by certificates—

1. That he has studied each of the following departments of Medical Science during Courses including not less than 100 Lectures, viz.:—Anatomy, Chemistry, Materia Medica, Institutes of Medicine or Physiology, Practice of Medicine, Surgery, Midwifery and the Diseases peculiar to Women and Children,—two Courses of Midwifery of three months each being reckoned equivalent to a six months' Course, provided different departments of Obstetric Medicine be taught in each of the Courses,—and General Pathology, or in Schools where there is no such Course, a three months' Course of Lectures on Morbid Anatomy, together with a supplemental Course of Practice of Medicine or Clinical Medicine; Practical Anatomy, six months; Practical Chemistry, three months; Practical Midwifery, three months at a Midwifery Hospital, or a certificate of attendance on six cases from a Registered Medical Practitioner; Clinical Medicine, Clinical Surgery, during Courses of six months or two Courses of three months, Lectures being given at least twice a-week; Medical Jurisprudence, Botany, and Natural History, including Zoology, during Courses including not less than fifty Lectures.

2. That he has attended for at least two years the Medical and Surgical Practice of a General Hospital which accommodates not fewer than eighty patients, and possesses a distinct staff of Physicians and Surgeons.

3. That he has been engaged for at least three months, by apprenticeship or otherwise, in compounding and dispensing drugs at the Laboratory of an Hospital, Dispensary, Member of a Surgical College or Faculty, Licentiate of the London or Dublin Society of Apothecaries, or a Member of the Pharmaceutical Society of Great Britain.

4. That he has attended for at least six months, by apprenticeship or otherwise, the Out-Practice of an Hospital or the Practice of a Dispensary, Physician, Surgeon, or Member of the London or Dublin Society of Apothecaries.

VII. The studies of Candidates for the Degrees of Bachelor of Medicine and Master in Surgery are subject to the following regulations:—

1. One of the four years of Medical and Surgical study, required by Section V., must be in the University of Edinburgh.

2. Another of such four years of Medical and Surgical study must be either in the University of Edinburgh or in some other University entitled to give the Degree of Doctor of Medicine.

3. Attendance during at least six winter months on the Medical or Surgical Practice of a General Hospital which accommodates at least eighty patients, and, during the same period, on a course of Practical Anatomy, may be reckoned as one of such four years, and to that extent shall be held equivalent to one year's attendance on Courses of Lectures, as above prescribed.

4. One year's attendance on the Lectures of Teachers of Medicine in the Hospital Schools of London, or in the School of the College of Surgeons in Dublin, or of such Teachers of Medicine in Edinburgh or elsewhere as shall from time to time be recognised by the University Court, may be reckoned as one of such four years, and to that extent shall be held as attendance on Courses of Lectures, as above prescribed.

5. Candidates may, to the extent of four of the departments of Medical study required by Section VI., Sub-Section 1, attend in such year or years of their Medical and Surgical studies, as may be most convenient to them, the Lectures of the Teachers of Medicine specified in the foregoing Sub-Section 4.

6. All Candidates, not Students of the University, availing themselves of the permission to attend the Lectures of Extra-Academical Teachers in Edinburgh must, at the commencement of each year of such attendance, enrol their names in a book to be kept by the University for that purpose, paying a fee of the same amount as the Matriculation fee paid by Students of the University, and having, in respect of such payment, a right to the use of the Library of the University.

7. The fee for attendance on the Lectures of an Extra-Academical Teacher in Edinburgh, with a view to Graduation, must be of the same amount as that exigible by Medical Professors in the University.

8. No Teacher is recognised who is at the same time a Teacher of more than one of the prescribed branches of study, except in those cases where Professors in the University are at liberty to teach two branches.

VIII. Every Candidate must deliver, before the thirty-first day of March of the year in which he proposes to graduate, to the Dean of the Faculty of Medicine—

1. A declaration, in his own handwriting, that he has completed his twenty-first year; and that he will not be, on the day of Graduation, under articles of apprenticeship to any Surgeon or other master.

2. A statement of his studies, as well in Literature and Philosophy as in Medicine, accompanied with proper certificates.

3. A Thesis composed by himself, to be approved by the Medical Faculty.

IX. Each Candidate is examined, both in writing and *viva*

voce—first, on Chemistry, Botany, and Natural History; secondly, on Anatomy, Institutes of Medicine, and Surgery; and thirdly, on Materia Medica, Pathology, Practice of Medicine, Clinical Medicine, Clinical Surgery, Midwifery, and Medical Jurisprudence. The Examinations on Anatomy, Chemistry, Institutes of Medicine, Botany, and Natural History are conducted, as far as possible, by Demonstrations of objects placed before the Candidates; and those on Medicine and Surgery in part by Clinical Demonstrations in the Hospital.

X. Students who profess themselves ready to submit to an Examination on the First Division of these subjects at the end of their second year may be admitted to Examination at that time.

XI. Students who have passed their Examination on the First Division of these subjects may be admitted to Examination on the Second Division at the end of their third year.

XII. The Examination on the Third Division cannot take place until the Candidate has completed his fourth *Annus Medicus*.

XIII. Candidates may, if they choose, be admitted to Examination on the first two of these Divisions at the end of their third year; or to the three Examinations at the end of their fourth year.

XIV. If any Candidate at these Examinations be found unqualified, he cannot be again admitted to Examination unless he has studied during another year two of the prescribed subjects, either in the University or in some other School of Medicine.

XVIII. The Degree of Doctor of Medicine may be conferred on any Candidate who has obtained the Degree of Bachelor of Medicine, and is of the age of twenty-four years, and has been engaged, subsequently to his having received the Degree of Bachelor of Medicine, for at least two years in attendance on an Hospital, or in the Military or Naval Medical Services, or in Medical and Surgical Practice: Provided always that the Degree of Doctor of Medicine shall not be conferred on any person unless he be a Graduate in Arts of one of the Universities of England, Scotland, or Ireland, or of such other Universities as are above specified, or unless he shall, before or at the time of his obtaining the Degree of Bachelor of Medicine, or within three years thereafter, have passed a satisfactory Examination in Greek and in Logic or Moral Philosophy, and in one at least of the following subjects, namely, French, German, Higher Mathematics, and Natural Philosophy.

XIX. The Medical Examiners for all Candidates for Graduation in Medicine are the Professors in the Faculty of Medicine, and, in addition, three persons appointed annually by the University Court.

XX. The Provisions of these Statutes came into operation on February 4, 1861.

XXI. Persons who began their Medical studies before February 4, 1861, are entitled to graduate under the system in force before or after that date, according as they may comply with the regulations in force in the University before or after that date.

PRELIMINARY EXAMINATIONS IN ARTS.

I. Examinations on the Preliminary Branches of Extra-Professional Education will take place on Wednesday, October 26, 1864, and on Saturday, March 25, 1865.

Subjects of Examination.—(1) English, (2) Latin, (3) Arithmetic, (4) Elements of Mathematics, (5) Elements of Mechanics.

II. And in two of the following subjects:—(1) Greek, (2) French, (3) German, (4) Higher Mathematics, (5) Natural Philosophy, (6) Logic, (7) Moral Philosophy.

III. That the Degree of Doctor of Medicine shall not be conferred on any person unless he be a Graduate in Arts, or unless he shall, before or at the time of his obtaining the Degree of Bachelor of Medicine, or within three years thereafter, have passed a satisfactory Examination on three of the subjects mentioned in No. II. Two of these must be Greek and Logic or Moral Philosophy, and the third may be any one of the following subjects—namely, French, German, Higher Mathematics, Natural Philosophy.

Examinations of the same extent at other British Universities granting the Degree of M.D. will exempt from these Preliminary Examinations.

Examinations in Latin for Students who come under the old Statutes, in consequence of having commenced their Medical curriculum by attendance on Classes before February 4, 1861, will take place on Wednesday, October 26, 1864, and on Saturday, March 25, 1865.

UNIVERSITY OF ABERDEEN.

The regulations for granting Medical Degrees are framed in conformity with an Ordinance of the Universities' (Scotland) Commissioners, dated March 16, 1861, and approved by Her Majesty in Council.

The following are the Degrees in Medicine granted by this University, namely, Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.).

The Preliminary Examination and Professional Curriculum and Examination for the Degrees of M.B., C.M., and M.D., being in conformity with the Ordinances of the Scotch Universities' Commissioners, are the same as those of the Universities of Edinburgh, Glasgow, and St. Andrews.

The studies of Candidates for the Degrees of Bachelor of Medicine and Master in Surgery are subject to these regulations:—

One at least of the four years of Medical and Surgical study must be in the University of Aberdeen.

Another of such four years must be either in this University or in some other University entitled to give the Degree of Doctor of Medicine.

FEES FOR GRADUATION.

1. Each Candidate for the Degree of M.B. shall pay a fee of five guineas in respect of each of the three Professional Examinations; each such fee of five guineas being payable at the time at which the Candidate comes forward to be examined in that Division in respect of which it is payable.

2. If the Candidate desires to be admitted to the Degree of Bachelor of Medicine only, he shall not, on admission thereto, be required to pay any further fee in addition to the fifteen guineas so paid by him; but if he desires to be admitted to the Degree of Master in Surgery also, he shall, on being admitted to such Degree, pay a further fee of five guineas.

3. And every Candidate for the Degree of Doctor of Medicine shall pay, in addition to the fees paid by him for the Degree of Bachelor of Medicine, a fee of five guineas, exclusive of any stamp duty which may for the time be exigible.

EXEMPTION FROM THE FOREGOING REGULATIONS.

Students who shall have begun their Medical studies before the first Tuesday of November, 1861, are entitled to appear for examination for the Degree of M.D. after four years' study, one of which must have been at the University of Aberdeen.

Further information may be obtained from the Dean of the Medical Faculty, Professor Macrobin, M.D.

UNIVERSITY OF ST. ANDREWS.

The regulations for granting Medical Degrees are framed in conformity with an Ordinance of the Universities' (Scotland) Commissioners, they therefore generally correspond with those of the Universities of Edinburgh, Aberdeen, and Glasgow.

The Degrees in Medicine granted by the University of St. Andrews are those of Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.).

The Preliminary Examination and Professional Curriculum and Examinations for these degrees are generally the same as those of the Universities of Edinburgh, Aberdeen, and Glasgow. The following regulations, however, for Candidates for the Degrees of Bachelor of Medicine and Master of Surgery present some difference:—

No one shall be received as a Candidate for the Degree of Bachelor of Medicine or Master in Surgery unless two years at least of his four years of Medical and Surgical Study shall have been in one or more of the following Universities and Colleges, viz.:—The University of St. Andrews; the University of Glasgow; the University of Aberdeen; the University of Edinburgh; the University of Oxford; the University of Cambridge; Trinity College, Dublin; Queen's College, Belfast; Queen's College, Cork; and Queen's College, Galway.

The remaining years of Medical and Surgical Study, other than those for which provision is made by the Ninth Section, may be either in one or more of the Universities and Colleges above specified, or in the Hospital Schools of London, or in the School of the College of Surgeons in Dublin, or under such private teachers of Medicine as may from time to time receive recognition from the University Court.

Attendance on the Lectures of any private teacher in Edinburgh, Glasgow, or Aberdeen shall not be reckoned for graduation in St. Andrews, if the fee for such Lectures be of less amount than is charged for the like course of Lectures

in the University of Edinburgh, of Glasgow, or of Aberdeen, according as the teacher lectures in Edinburgh, Glasgow, or Aberdeen.

Every Candidate for the Degrees of Bachelor of Medicine and Master in Surgery shall be examined both in writing and *viva voce*,—First. On, Chemistry, Botany, Elementary Anatomy, and Materia Medica. Secondly. On advanced Anatomy, Zoology, with Comparative Anatomy, Physiology, and Surgery. And thirdly. On Practice of Medicine, Clinical Medicine, Clinical Surgery, Midwifery, General Pathology, and Medical Jurisprudence.

FEES FOR GRADUATION.

For the Degree of Bachelor of Medicine five guineas in respect of each of the three divisions of the Examination on Professional subjects; and if the Candidate desires to be admitted to the Degree of Bachelor of Medicine only, he shall not, on admission thereto, be required to pay any further fee in addition to the fifteen guineas so paid by him; but, if he desires to be admitted to the Degree of Master in Surgery also, he shall, on being admitted to such degree, pay a further fee of five guineas; and every Candidate for the Degree of Doctor of Medicine, who has previously obtained the Degree of Bachelor of Medicine, shall pay, in addition to the fees paid by him as a Candidate for the Degree of Bachelor of Medicine, a fee of five guineas, exclusive of any stamp duty which may for the time be exigible.

N.B.—The Degree of Doctor of Medicine may be conferred by the University of St. Andrews on any registered Medical Practitioner above the age of forty years, whose Professional position and experience are such as, in the estimation of the University, to entitle him to that Degree, and who shall, on examination, satisfy the Medical Examiners of the sufficiency of his Professional knowledge; provided always, that Degrees shall not be conferred under this Section to a greater number than ten in any one year. Fee, £52 10s.

Further information may be obtained on application to the Secretary to the University.

UNIVERSITY OF GLASGOW.

Three Degrees in Medicine are granted, viz.:—Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.) [The Preliminary Examination, Curriculum, and Professional Examinations for these Degrees being in conformity with the Ordinance of the Scottish University Commissioners, are the same as for the Universities of Edinburgh, St. Andrews, and Aberdeen.]

Of the four years constituting the Curriculum, one at least shall have been passed in the University of Glasgow, and another either in that University or some other University entitled to give Degrees in Medicine.

These Statutes apply to all Candidates who commenced their Medical studies on or after October 1, 1861. Candidates who began their Medical studies before that date are entitled to obtain their Degrees according to the regulations existing at the time when they commenced their studies.

The annual terms for conferring Medical and Surgical Degrees are the last Wednesday in April and the first day of August.

The fees for the Degrees are as follow:—For the Degree of M.B. (for each of three examinations, £5 5s.), £15 15s.; for that of C.M. (in addition to the fee for M.B.), £5 5s.; for the Degree of M.D. (in addition to the fee for M.B.), £5 5s.; and the Government stamp for the Diploma, &c., £10 3s.

The Preliminary Examinations of Medical Students in branches of General Education take place at the beginning and at the end of the winter session.

The regulations under which the above Degrees are granted, and the notices of the subjects of Examination, will be obtained by application to the Registrar of the University.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

REGULATIONS RELATING TO ADMISSION TO THE FELLOWSHIP AND MEMBERSHIP.

Fellows.—No one can be elected a Fellow of the College until he has been one year a Member of it, and has attained the age of twenty-five years.

Membership.—Any Licentiate of a College of Physicians, or Graduate of a British or Irish University, with whose knowledge of Medical and General Science the College may be satisfied, may be admitted a Member of the College, provided he has attained the age of twenty-four years.

The fee to be paid by a Member is £31 10s.; the fee to be paid by a Licentiate when raised to the rank of Member is £21; the fee to be paid by a Member when raised to the rank of Fellow is £31 10s., together with £25 of stamp duty to Government.

ABSTRACT OF REGULATIONS FOR THE LICENCE, 1864-65.

1. No one can obtain the Licence of the College until he has completed the age of twenty-one years.

2. Every Applicant for the Licence must produce satisfactory evidence that he has been engaged in the study of Medicine during a period of at least four years, and that he has attended the following Courses at a University, or at some Medical School recognised by the College:—

Anatomy, 1 course, six months; Practical Anatomy, 1 course, six months, or two courses, three months each; Botany (unless taken as a branch of preliminary study), 1 course, three months; Chemistry, 1 course, six months; Practical Chemistry, 1 course, three months; Materia Medica and Pharmacy, 1 course, three months; Physiology or Institutes of Medicine, 1 course, six months; Practice of Medicine, 1 course, six months; Clinical Medicine, extending to six months; Principles and Practice of Surgery, 1 course, six months; Clinical Surgery, 1 course, three months; Midwifery, 1 course, three months; Medical Jurisprudence, 1 course, three months; Pathological Anatomy, 1 course, three months, or General Pathology, 1 course, three months; Practical Pharmacy, 1 course, three months.

The Applicant must also produce evidence of having attended the practice of a Public Hospital (containing not fewer than 80 beds) during a period of not less than twenty-four months, twelve of which must have been spent in attendance on the Medical Wards.

The Applicant must also have attended at least six cases of Labour under the superintendence of a qualified Medical Practitioner, either in a recognised Maternity Hospital or a Dispensary where Midwifery cases are admitted, or in private practice, and must produce a Certificate to that effect from the Practitioner under whom he attended.

3. Every Applicant for the Licence must pass the Preliminary Examination in Literature and Science before being admitted to the Professional Examination, and no Student shall be permitted to enter his name in the Register of the College until he has passed the Preliminary Examination.

The Examination will embrace the following subjects:—1. English; 2. Latin; 3. Arithmetic; 4. and 5. Any two of the following, at the option of the Candidate—(1.) Algebra; (2.) Geometry; (3.) Natural Philosophy; (4.) Greek; (5.) French; (6.) German; (7.) Botany; (8.) Zoology.

4. Masters and Bachelors of Arts of any British or Foreign University, whose Course of Study may from time to time be approved of by the College, will be exempted from the above Preliminary Examination; and also those who have successfully undergone Examination by the National Educational bodies, or by any of the Licensing Boards recognised by the Medical Act, provided the Course of Education, and the subjects of Examination, be equivalent to those included under Regulation 3.

5. The Professional Examinations will be divided into two parts, according to the following arrangement of subjects:—(1.) Anatomy, Physiology, Chemistry; (2.) Materia Medica and Pharmacy, Pathology and Pathological Anatomy, Surgery, Practice of Medicine, Midwifery, Medical Jurisprudence. No Candidate will be admitted to the first Examination until he has completed two, or to the second until he has completed four years, of professional study. The Examinations will be conducted partly *vivâ voce*, partly by written papers; and, whenever practicable, will consist in part in the examination of persons suffering under disease.

6. The following will be the periods of Examination, from October, 1864, to October, 1865:—(1.) Preliminary Examinations in Literature and Science, on Saturday, October 29, 1864; on Saturday, November 12, 1864; on Saturday, April 29, 1865; on Saturday, July 29, 1865. (2.) First Professional Examinations, on Wednesday, October 26, 1864; on Wednesday, January 25, 1865; on Wednesday, April 5, 1865; on Wednesday, May 3, 1865; on Wednesday, July 12, 1865; on Wednesday, July 26, 1865; on Wednesday, October 25, 1865. (3.) The Second Professional Examinations will take place immediately after the conclusion of each of the First Professional Examinations. Candidates who already possess a qualification will not be required to attend at the specified periods, but will be admitted to special Examination, provided they give due notice to the Secretary.

7. Candidates for the Licence of the College who already possess a qualification from a recognised Licensing Body, or who have passed the first Professional Examination before a Qualifying Body, will not be required to be re-examined on Anatomy, Physiology, and Chemistry, but will be at once admitted to the second part of the Examination.

8. No Candidate shall be admissible to Examination who has been rejected by any other Licensing Board, within the last three months previous to his Examination.

9. The fee payable by a Licentiate is Ten Guineas.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

REGULATIONS TO BE OBSERVED BY CANDIDATES FOR THE DIPLOMA.

PROFESSIONAL EDUCATION.

Candidates commencing Professional study after October 1, 1861, must have been engaged in Professional study during four years after the Examination in General Education, which shall include not less than four Winter Sessions' or three Winter and two Summer Sessions' attendance at a recognised Medical School. (a)

The Candidate must have attended the following separate and distinct Courses of Lectures :—

Anatomy, 2 Courses (b), six months each. Practical Anatomy, twelve months. Chemistry, 1 Course, six months. Practical or Analytical Chemistry, 1 Course, three months. Materia Medica, 1 Course, three months. Physiology, not less than fifty Lectures. (c) Practice of Medicine, 1 Course, six months. Clinical Medicine, six months. (d) Principles and Practice of Surgery, 1 Course, six months. Clinical Surgery, 1 Course, six months. (d) In addition to the above Courses of Surgery and Clinical Surgery, one Course of either of these at the option of the Student, 1 Course, six months. (d) Midwifery and the Diseases of Women and Children, 1 Course, three months. Medical Jurisprudence, 1 Course, three months. Besides the above-mentioned Courses of Lectures, the Candidate must have attended at least six cases of Labour under the superintendence of a qualified Medical Practitioner, and must also have attended, for three months, a Course of Instruction in Practical Pharmacy.

The Candidate must have attended, for twenty-four months, a Public General Hospital containing at an average at least eighty patients. He must also have attended, for six months, the Practice of a Public Dispensary specially recognised by the College; or have been engaged for six months as Visiting Assistant to a Registered Practitioner.

A Certificate of three months' instruction in Pathological Anatomy at the post-mortem room of a recognised Hospital will be required from Candidates commencing Professional Study after October 1, 1861.

A certificate of proficiency in Vaccination, signed by a Registered Practitioner, will be required of every Candidate.

The six months' Courses delivered in Scotland must consist of not fewer than 100 Lectures, with the exception of Clinical Medicine and Clinical Surgery. The three months' Courses must consist of not fewer than fifty Lectures.

REGISTRATION.

A book is kept in the Hall of the College for the registration of all Medical Students who may apply. In this book all Edinburgh students who desire to possess the Diploma of the College must be registered, whether they attend Professors in the University or other qualified Teachers.

No Student beginning Professional study after September, 1861, can be registered who has not passed the Preliminary Examination in General Education accepted by the College, or one of the equivalent Examinations.(e)

(a) In consequence of the proceedings of the General Medical Council in May, 1862, this regulation will not take effect until further notice. Candidates are at present admitted to Examination after four Winter Sessions' or three Winter and two Summer Sessions' attendance at a recognised Medical School.

(b) The two Courses must not be simultaneous.

(c) In those Schools of England and Ireland in which two separate Courses of Lectures are delivered at separate hours, one on Anatomy, the other on Anatomy and Physiology, the former of these Courses will be received as one of the two Courses of Anatomy required by the College, and the other as the Course of Physiology.

(d) Two Courses of Clinical Medicine of three months each, if not simultaneous, will be held equivalent to one Course of six months. They must be attended during the period of attendance at the Hospital where they are delivered. The same rules apply to Clinical Surgery.

(e) In consequence of the proceedings of the General Medical Council in May, 1862, this regulation will not take effect until further notice.

PRELIMINARY EXAMINATION IN GENERAL EDUCATION.

Candidates commencing their Professional studies after October 1, 1861, must satisfy the Examiners in General Education that they have a competent knowledge of the following branches of study:—1. English—Composition, and Writing to Dictation. 2. Latin. 3. Arithmetic—To Vulgar and Decimal Fractions, inclusive. 4 and 5. Any two of the following, at the option of the Candidate: (1) Algebra; (2) Geometry—Euclid, Books I., II., and III.; (3) Natural Philosophy; (4) Greek; (5) French; (6) German; (7) Botany; (8) Zoology.

Testimonials of proficiency granted by certain Educational Bodies shall be accepted as sufficient evidence of General Education, and shall exempt from the Preliminary Examination.

After September, 1861, all Candidates for the Diploma of the College must pass the Examination in General Education before they commence their Professional studies. The time of commencing Professional study is understood to be the time of commencing study at a Medical School.(f)

Candidates who commenced their Professional studies before October 1, 1861, may pass the Preliminary Examination in General Education at any of the periods previous to the first Professional Examination. Candidates under this regulation, who have not passed a Preliminary Examination in General Education will be required to undergo that Examination on the day before the First Professional Examination, and shall pay a fee of £1.

PROFESSIONAL EXAMINATIONS FOR THE DIPLOMA OF THE COLLEGE.

Candidates for the Diploma of the College shall be subjected to two Professional Examinations, to be conducted at separate sittings, partly in writing and partly orally.

The fee for the Diploma of the College is £10.

Note.—The fee payable for the Diploma by Apprentices of those who were Fellows of the College prior to the Charter of 1851 is £5.

ROYAL COLLEGE OF PHYSICIANS AND SURGEONS, EDINBURGH.

The two Colleges conjointly grant their Diplomas to Candidates who have successfully passed one series of examinations before a Board of Examiners in which each College is represented. The regulations as to the Curriculum of study are similar to those for the separate Diploma of the College of Surgeons, with the addition of a Course of Lectures on Botany and a second Course on Medicine. The entire fee for the two Diplomas obtained conjointly is £16.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

Course of Study.—1. Anatomy: Two Six Months' Courses. 2. Practical Anatomy: Twelve Months. 3. Institutes of Medicine or Physiology: Not less than fifty Lectures. 4. Chemistry: One Course, Six Months. 5. Practical or Analytical Chemistry: One Three Months' Course. 6. Practice of Medicine: One Six Months' Course. 7. Principles and Practice of Surgery: One Six Months' Course. 8. Clinical Medicine. 9. Clinical Surgery: One Six Months' Course of each, embracing at least two Lectures weekly, which must be attended simultaneously with attendance on the practice of the corresponding department of the Hospital at which they are delivered. 10. Materia Medica: One Three Months' Course. 11. Medical Jurisprudence: One Three Months' Course. 12. Midwifery and the Diseases of Women and Children: One Three Months' Course. 13. Practical Midwifery: Attendance on at least Six Cases of Labour. 14. Practical Pharmacy: Three Months' Practical Instruction. 15. Pathological Anatomy or General Pathology at the post-mortem room of a recognised Hospital: Three Months' Course. 16. Hospital and Dispensary Practice: Twenty-four Months' Attendance on the Practice of a Public General Hospital, containing on an average at least eighty patients; and also Six Months' Attendance on the Practice of a Public Dispensary specially recognised by the Faculty.

Candidates for the Diploma of the Faculty must produce

(f) In consequence of the proceedings of the General Medical Council in May, 1862, the regulations contained in Section 3, Chapter V., will not take effect until further notice. Candidates are, notwithstanding, recommended to pass the Examination in General Education before commencing Professional study.

evidence of being twenty-one years of age, and of good moral character.

Candidates commencing Professional study after October 1, 1861, must have been engaged in Professional study during four years, which shall include not less than four Winter Sessions, or three Winter and two Summer Sessions' attendance at a recognised Medical School.

The Examination for the Diploma is divided into two parts. Anatomy, Physiology, and Chemistry are the subjects of the first division of the Examination. The Second Examination embraces all the other subjects of the Course. The fee for the Diploma is £10—£4 for the First and £6 for the Second Examination.

At present all Candidates for the Diploma are required to have a knowledge of Latin and Natural Philosophy. Those now beginning their Professional Course will be required to pass a Preliminary Examination, and be registered in terms of the Ordinances of the General Medical Council.

All necessary particulars may be obtained on application to the Registrar.

FACULTY OF MEDICINE IN IRELAND.

UNIVERSITIES, COLLEGES, COURSES OF STUDY, DEGREES, AND LICENCES TO PRACTISE.

The following Bodies grant one or more Degrees or Licences to practise Medicine or Surgery, and provide courses of instruction in the Medical Sciences:—The University of Dublin grants the Degrees of M.B. or Bachelor of Medicine; M.D. or Doctor of Medicine; M.C. or Master of Surgery; also Licences in Medicine (L.M.) and Surgery (L.S.). The Queen's University in Ireland, with its Provincial Colleges at Belfast, Cork, and Galway; this University confers the Degree of M.D. The King and Queen's College of Physicians in Ireland, granting a Licence and Fellowship. This Institution, in connexion with the Medical Faculty of the University of Dublin, constitutes the School of Physic in Ireland. The Royal College of Surgeons in Ireland, which grants Letters Testimonial qualifying to practise Surgery as a Licentiate, and also confers a Fellowship. Fellows and Licentiates of the Colleges of Physicians and Surgeons may obtain from their respective Colleges a Diploma in Midwifery. The Rotunda and Coombe Lying-in Hospitals grant Diplomas in Midwifery, which are, however, not recognised under the Medical Act. The Governor and Company of the Apothecaries' Hall of Ireland also confer a Diploma.

The Medical Session in Ireland commences about the first week in November.

UNIVERSITY OF DUBLIN.

TRINITY COLLEGE.

SCHOOL OF MEDICINE AND SURGERY.

The following Degrees and Licences in Medicine and Surgery are granted by the University of Dublin, in conformity with the Charter of Queen Elizabeth, and are entitled to be registered under the Medical Act, 21 and 22 Vict. cap. 90:—1. Bachelor in Medicine. 2. Doctor in Medicine. 3. Master in Surgery. 4. Licentiate in Medicine. 5. Licentiate in Surgery.

The qualifications requisite for these Licences and Degrees are the following:—

I. BACHELOR IN MEDICINE.

A. *Qualification in Arts.*—The Bachelor in Medicine must be a Bachelor in Arts of Dublin, Oxford, or Cambridge.

B. *Qualification in Medicine.*—Four years, at least, spent in the study of Medicine, including the following Courses of Lectures:—1. Anatomy and Physiology. 2. Practical Anatomy. 3. Surgery. 4. Chemistry. 5. Materia Medica and Pharmacy. 6. Institutes of Medicine and Pathology. 7. Practice of Medicine. 8. Midwifery. Each of these eight Courses is of six months' duration. 9. Botany. 10. Practical Chemistry. 11. Medical Jurisprudence. Each of these Courses is of three months' duration. 12. Nine months' attendance on the Clinical Instruction given in the Hospital of Sir Patrick Dunn. 13. Nine months' attendance on the Clinical Instruction of any Medico-Chirurgical Hospital approved by the Board of Trinity College.

After the completion of the foregoing Courses, the Candidates for the Degree of Bachelor in Medicine must pass a public Examination, of at least two days' duration, partly written and partly oral.

The Certificates of Lectures in the following Schools are recognised by the University of Dublin:—1. The School of Physic, Trinity College. 2. The School of the College of Surgeons. 3. The Richmond Hospital, or Carmichael School. 4. The Steeven's Hospital School. 5. The Ledwich, or Peter-street School. 6. The School of the Catholic University of Ireland.

The following Medico-Chirurgical Hospitals are recognised by the University of Dublin:—1. Hospitals of the House of Industry (Richmond, Whitworth, and Hardwicke). 2. Mercer's Hospital. 3. The City of Dublin Hospital. 4. St. Vincent's Hospital. 5. The Meath Hospital and County of Dublin Infirmary. 6. Jervis-street Infirmary. 7. Dr. Steeven's Hospital. 8. The Adelaide Hospital. 9. The Mater Misericordiæ Hospital.

The Lectures of the Professors of the School of Physic, Trinity College, are recognised by the Royal College of Surgeons of Ireland, by the King and Queen's College of Physicians, and by all the other Licensing Corporations in the United Kingdom.

II. DOCTOR IN MEDICINE.

A. *Qualification in Arts.*—The Doctor in Medicine must be a Bachelor of Arts of Dublin, Oxford, or Cambridge, of three years' standing.

B. *Qualification in Medicine.*—The Doctor in Medicine requires no qualification in Medicine, additional to that necessary for the Bachelor in Medicine. Fee payable for Degree of M.D., £12.

III. MASTER IN SURGERY.

A. *Qualification in Arts.*—The Master in Surgery must be a Bachelor of Arts of Dublin, Oxford, or Cambridge.

B. *Qualification in Surgery.*—Four years' study of Surgery, and attendance on the following Courses:—1. Anatomy and Physiology. Two Courses, each of six months. 2. Theory and Practice of Surgery. Two Courses, each of six months. 3. Demonstrations and Dissections. Three Courses, each of six months. 4. Practice of Medicine. 5. Chemistry. 6. Materia Medica. 7. Midwifery. One Course each, of six months' duration. 8. Practical Chemistry. 9. Botany. 10. Medical Jurisprudence. One Course each, of three months' duration. 11. Attendance on the Clinical Instruction of three Sessions, of nine months each, in any of the recognised Medico-Chirurgical Hospitals.

Having completed the foregoing Courses, the Candidate for this Degree must pass a public Examination of two days' duration, partly written and partly oral. Fee payable for Degree of M.C., £10.

IV. LICENTIATE IN MEDICINE.

A. *Qualification in Arts.*—The Licentiate in Medicine must have kept one full year in Arts.

B. *Qualification in Medicine.*—Same as the qualification for the Degree of Bachelor in Medicine—viz., attendance on the prescribed Courses of instruction, and the passing of a similar public Examination. Fee payable for the Licence in Medicine, £5.

V. LICENTIATE IN SURGERY.

A. *Qualification in Arts.*— The Licentiate in Surgery must have kept one full year in Arts.

B. *Qualification in Surgery.*—Same as for the Degree of Master in Surgery—viz., attendance on the prescribed Courses of instruction, and the passing of a similar public Examination. Fee payable for the Licence in Surgery, £5.

MEDICAL SCHOLARSHIPS.

Two Medical Scholarships are given annually by the Board of Trinity College, value £20 per annum each, tenable for two years. The Examinations for which are held each year in June, in the following subjects:—Anatomy, Chemistry, Materia Medica, and Botany.

MEDICAL SCHOOL EXHIBITIONS.

The Professors of the University School give three Exhibitions annually, two senior, value £15 and £10, open to all students who have been three years attending the School. The subjects being,—Practice of Medicine, Surgery, Pathology, Midwifery, and Forensic Medicine.

One Junior, value £15.—The time and subjects of Examination being the same as those for the Medical Scholarships.

Expense of obtaining the Degrees of Bachelor in Medicine and Master in Surgery in the University of Dublin.

I. Lectures.	£56	14	0
II. Hospitals (Sir P. Dunn's and three years in Medico-Chirurgical Hospitals) .	31	10	0
III. Degree Fees	20	0	0
	£108	4	0
Private Tuition, say	20	0	0
	£128	4	0

The Courses of Lectures may be attended in any of the following Schools, provided always that one *Annus Medicus* be kept in the School of Physic of the University:—1. School of Physic, Trinity College; 2. Royal College of Surgeons; 3. Richmond Hospital School; 4. Dr. Steeven's Hospital School; 5. Peter-street School; 6. Catholic University School.

Four Courses, viz., Anatomy, Chemistry, Botany, and Surgery, are free to Students in Arts, matriculated in Medicine, having their names on the College books.

The Hospitals recognised by Trinity College are—1. Richmond, Whitworth, and Hardwicke; 2. Meath Hospital; 3. Dr. Steeven's Hospital; 4. Jervis-street Infirmary; 5. City of Dublin Hospital; 6. Mercer's Hospital; 7. St. Vincent's Hospital; 8. Adelaide Hospital; 9. Mater Misericordiæ Hospital.

N.B.—As no degrees in Medicine or Surgery are conferred except upon Graduates in Arts, the expense of the Degree of Bachelor in Arts, amounting altogether to £82 4s., should be added to the foregoing, making the total cost something over £200.

THE QUEEN'S UNIVERSITY IN IRELAND,

granting the Degree of M.D., is the centre or head of the Queen's Colleges of Belfast, Cork, and Galway, each of which possesses a Faculty of Medicine. The curriculum of Medical study extends over a period of four years, and is divided into two periods of two years each. The first period comprises attendance on Chemistry, Natural History, Anatomy and Physiology, Practical Anatomy, Materia Medica, and Pharmacy. The second period comprises attendance on Anatomy and Physiology, Practical Anatomy, Theory and Practice of Surgery, Midwifery, and Diseases of Women and Children, Theory and Practice of Medicine, Medical Jurisprudence. At least three of the above Courses of Lectures must be attended in some one of the Queen's Colleges; the remainder may be taken at the option of the Candidate, in any University, College, or School recognised by the Senate of the Queen's University. Candidates are required before graduating to have also attended in one of the Colleges of the Queen's University Lectures on Natural Philosophy, and on one Modern Language, and to have passed the Matriculation Examination. They are further required to attend, during the first period, Practical Chemistry in a recognised Laboratory, and the Practice during six months of a Medico-Chirurgical Hospital, containing at least sixty beds, together with Clinical Lectures delivered therein; during the second period, three months' Practical Midwifery in a recognised Hospital with not less than thirty beds, or six months' Practical Midwifery in a recognised Hospital with fifteen beds; and eighteen months' Practice of a Medico-Chirurgical Hospital, containing at least sixty beds, and in which Clinical Instruction is delivered. There are two University Examinations: one comprising the subjects of study in the first period, the other the subjects of the second period. Candidates may, if they prefer to do so, pass both these Examinations at the same time. The University Examinations are held twice in each year, in June and September. Further information will be found in the "Queen's University Calendar," or may be obtained by application to the Secretary, Queen's University, Dublin Castle.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

REGULATIONS RESPECTING THE EDUCATION, EXAMINATION, AND ADMISSION OF CANDIDATES FOR THE LICENTIATESHIP IN MEDICINE.

Candidates for the Licentiateship in Medicine are required to give proof of their having attained the age of twenty-one years, of having been engaged during a period of four years in the study of Medicine, at a School or schools recognised by the College, and shall also produce evidence of having studied the following subjects, viz.:—Anatomy, Physiology, Practical Anatomy, Chemistry, Practical Chemistry, Materia Medica, and Botany, Medical Jurisprudence, Practice of Medicine and Pathology, Surgery, Midwifery, and of having attended a Medico-Chirurgical Hospital, in which regular Courses of Clinical Lectures are delivered, together with Clinical Instruction for twenty-seven months, or such Hospital for eighteen months, with nine months' attendance on a Medical Hospital, and similar courses of Clinical Lectures and Clinical Instruction; the attendance in each case being for not more than nine months in any year,—namely, for six winter and three summer months, and the attendance on a Medico-Chirurgical Hospital and Medical Hospital not being taken out in the same year, and of having attended Practical Midwifery for six months.

Candidates who are not personally known to any Fellow of the College are required to transmit testimonials of character from registered Physicians or Surgeons.

The Examination is divided into two parts:—

First Part.—Anatomy, Physiology, Botany, and Chemistry.

Second Part.—Materia Medica, Practice of Medicine, Medical Jurisprudence, and Midwifery.

Students may be examined in the subjects of the first part at the termination of the first period of study; or in all the subjects of their education, on the completion of their Medical studies.

Candidates are required to have passed an Examination in the following subjects of preliminary education before the Board of Examiners of this College, previous to or within the first two years of their Professional studies; or to have passed, within the period specified, an Examination in General Education, held by some of the qualifying Bodies, or by some one of the National Education Bodies approved by the College:—

English—Composition. Modern Languages—French or German. Greek. Latin. Mathematics—Euclid, First and Second Books. Arithmetic.

Students in Arts, of one year's standing, of any University in the United Kingdom, requiring Examinations in the first year; Graduates or Licentiates in Medicine or Surgery of any University or College in Great Britain or Ireland, will be exempted from the Preliminary Examination.

The above regulations respecting Preliminary Examination will not apply to Candidates who have commenced their Professional education previously to January 1, 1861.

Candidates qualified as follows are required to undergo the second part of the Professional Examination only, viz.:—1. Graduates in Medicine of a University in the United Kingdom, or of any foreign University approved by the College. 2. Fellows, Members, or Licentiates of the Royal Colleges of Physicians of London or Edinburgh. 3. Graduates or Licentiates in Surgery.

Licence in Midwifery.—Members of the College who may desire to obtain the Licence in Midwifery will be required to undergo a special Examination.

Candidates for the Licence in Midwifery, who are not Members of the College, will be admitted to Examination for such Licence in Midwifery on the following qualifications:—The Degree or Licence in Medicine or Surgery from any University or College of Physicians or Surgeons in the United Kingdom, together with a certificate of having attended a six months' Course of Lectures on Midwifery, with the attendance for six months at a recognised Lying-in Hospital, or of having attended Practical Midwifery for six months.

Fees for Licence and Examinations.—The fee for the Licence is £15 15s., which may be divided as follows, viz.:—For Examination at the termination of the first period of study, £5 5s. The Final Examination for the Licence, £10 10s. Fee for the Midwifery Diploma, £3 3s. Fee for the Preliminary Examination, 5s.

The Admission fee, with the exception of two guineas deducted to meet the expense of Examination, will be returned to any Candidate who may be rejected.

ROYAL COLLEGE OF SURGEONS, IRELAND.

Fellows of the College are Members of the Corporation, and are admitted by examination. Letters Testimonial are granted to Licentiates, and a Diploma in Midwifery to Fellows and Licentiates educated and examined in that branch of Surgery.

Candidates for the Fellowship must be 25 years of age, and must give proof of liberal preliminary education and good

conduct during Professional education. They are required to produce certificates of Surgical studies for six years (three of which must be for exercises in Dublin), and also of practice as House-Surgeon or Dresser in an Hospital; as well as certificates of attendance on Hospitals, Lectures, and Dissections, as required from Licentiates; with the addition of Botany, Comparative Anatomy, and Natural Philosophy. Fee, £26 5s.; if the Candidate be a Licentiate, £10 10s.

Candidates for Letters Testimonial are required to produce certificates of preliminary classical education, of four years' Professional study (three of them in Metropolitan Schools), also three years' attendance on Hospital Practice and Dissections. Fee, £21.

Candidates for the Midwifery Diploma must be Fellows or Licentiates of the College, are required to produce certificates of attendance on Midwifery Lectures and Practice, with proof of having attended thirty cases of Parturition.

Candidates for the Fellowship and Letters Testimonial are publicly examined on two separate days in Anatomy, Physiology, Surgery, Practice of Medicine, and Pharmacy. The Examiners are elected by a sworn jury of the Council appointed by lot, Teachers being ineligible.

By a new Bye-law it is enacted that—"Certificates of attendance on Lectures and of the performance of Dissections shall be received from Professors and Lecturers in all Universities, Colleges, and recognised Schools in Her Majesty's dominions, as qualifications for the Fellowship and Letters Testimonial of this College; and also certificates of attendance on all Hospitals recognised by the Council, where Clinical instruction is given."

THE APOTHECARIES' HALL OF IRELAND.

BYE-LAWS AND REGULATIONS REGARDING THE LICENCE TO PRACTISE AS AN APOTHECARY.

Every Candidate is required to undergo a Preliminary and a Professional Examination.

THE PRELIMINARY EDUCATION AND EXAMINATION

include—1. English; 2. Mathematics; 3. French; 4. Latin; 5. Greek; 6. Natural Philosophy; 7. Natural History.

A Preliminary Examination will be held at the Hall four times in the year, viz., on the third Friday in the months of January, April, July, and October, at the hour of Two o'clock p.m. This Examination will be conducted by Graduates in Arts of the University of Dublin, with Assessors from the Court of the Hall.

Unsuccessful Candidates will not be re-admitted to Examination until after the lapse of six months.

Certificates in Arts granted by any of the Bodies named in Schedule (A) of the Medical Act, or by any Educational Institution approved of by the Medical Council, will be recognised by the Hall.

THE PROFESSIONAL EDUCATION AND EXAMINATION.

Every Candidate for the Licence to practise must produce Certificates to the following effect:—

1. Of having passed an Examination in Arts previously to entering on Professional study.

2. Of being registered as a Student in Medicine by one of the Bodies named in Schedule (A) of the Medical Act.

3. Of being at least twenty-one years of age, and of good moral character.

4. Of Apprenticeship to a qualified Apothecary, or of having been engaged at practical Pharmacy with an Apothecary for a period of three years subsequent to having passed the Examination in Arts.

5. Of having spent four years in Professional study.

6. Of having attended the following Courses, viz.:—Chemistry, during one winter session; Anatomy and Physiology, during two winter sessions; Demonstrations and Dissections, during two winter sessions; Botany and Natural History, during one summer session; Materia Medica and Therapeutics, during one summer session; Practical Chemistry (in a recognised Laboratory), during three months; Principles and Practice of Medicine, during one winter session; Midwifery and Diseases of Women and Children, during six months; Practical Midwifery at a recognised Hospital (attendance upon twenty cases); Surgery, during one winter session; Medical Jurisprudence, during one summer session; Instruction in the Practice of Vaccination.

7. Of having attended, at a recognised Hospital or Hospitals, the Practice of Medicine and Clinical Lectures on Medicine, during two winter and two summer sessions; also the Practice of Surgery and Clinical Lectures on Surgery, during one winter and one summer session.

The Examination for the Licence to practise is divided into two parts.

The First Part comprehends Chemistry, Botany, Anatomy, Physiology, Materia Medica, and Pharmacy.

The Second—Medicine, Surgery (Principles of), Pathology, Midwifery, Forensic Medicine, and Hygiene.

The First Part may be undergone at the close of the second winter session, and after the Candidate has attended the Courses upon the several subjects named for this Examination, and the second not before the completion of the fourth winter session.

The Licence of the Apothecaries' Hall, Dublin, entitles its possessor to be registered as a Medical Practitioner, under the Medical Act, and to practise Medicine and Pharmacy in Great Britain and Ireland.

The Governor and Court of Examiners meet at the Hall upon the first two Fridays in every month for the Examination of Candidates, at the hour of Two o'clock p.m.

Candidates for the Licence must lodge their Testimonials, and enrol their names and address with the Clerk at the Hall, in Dublin, a week prior to the day of Examination.

A rejected Candidate cannot be re-admitted to Examination until after the expiration of six months.

Candidates for the Certificate of Assistant to an Apothecary, in Compounding and Dispensing Medicine, must have completed at least three years of his Apprenticeship with an Apothecary, or have a Certificate from an Apothecary of having been engaged at practical Pharmacy for a period of three years, together with a Certificate of good moral character.

The Examination of the intended Assistant will be restricted to the British Pharmacopœia and to Pharmacy, scientific and practical, including the history and character of Medicines, their preparation, combination, and doses, and the translation of Latin Prescriptions.

An Examination of Apprentices is held at the Hall in the first week in May annually, upon some subject of Medical Chemistry, which is announced by the Council of the Hall at the commencement of the previous Winter Session, and a Prize of Five Guineas is awarded to the successful competitor.

In reference to the foregoing Education and Examinations it is required by the Council of the Hall that every Candidate for the Preliminary Examination, or Certificate of Apprentice, shall have read all the Books in the prescribed Course, and shall pass such Examination as will satisfactorily test his grammatical knowledge of the languages, his acquaintance with the working of the several problems and calculations, and his familiarity with the leading events of English History, and with the elements of Physical and Natural Science.

In each department numerical values will be attached to the answers, and only Candidates who attain a certain proficiency will obtain "the Certificate in Arts" or "Certificate of Apprentice."

This Examination will be conducted by printed papers, and the answers will be required in writing.

In the first part of the Examination for "the Licence" the Candidate is required to recognise and describe samples of Drugs and Plants used in Medicine, and to indicate the chemical and physical means of distinguishing them; to enumerate and explain the Pharmaceutic preparations of the Pharmacopœia, with their uses and doses; to translate Latin prescriptions correctly; and to answer questions in Human Anatomy, and in Vegetable and Animal Physiology.

This Examination will be partly written and partly oral.

In the Second part, the Candidate, having passed the first part satisfactorily, must answer questions in the several departments of Practical Medicine, and demonstrate and define diseased structure and injuries from pathological illustration, and give also the appropriate treatment and the form of prescription suitable in each case.

This Examination will be also partly written and partly oral.

Doctors of Medicine of any of the Universities in the United Kingdom, or Surgeons of any of the Royal Colleges of Surgeons, whose qualifications as such appear in the Medical Register, and who, having first passed an Examination in Arts, have also served an Apprenticeship, or the required Term at Practical Pharmacy, to a qualified Apothecary, may obtain the Licence of the Hall by undergoing an Examination—the former in Pharmacy, and the latter in Medicine and Pharmacy; in either case the Examination of the Candidate will be confined to one day's Examination.

"A Register of Medical Students" lies with the Clerk at

his office in the Hall, and remains open from the *first* to the *fifteenth* day of each Winter and Summer Session for the entry of the names of Students who have passed the Preliminary Examination in Arts and commenced their Professional study.

TO CORRESPONDENTS.

We beg to return our best thanks to the Registrars and Secretaries of the various Universities, Colleges, and Schools for their prompt replies to our Circular, and for the trouble they have taken in supplying the latest Regulations of the Institutions with which they are connected.

In order to confine the whole of this week's Number to information specially important to Students, we are compelled to defer answers to several Correspondents, together with all notices of passing events, until next week.

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Medical Times and Gazette.

SATURDAY, SEPTEMBER 17.

IS MEDICINE A PROFESSION FOR GENTLEMEN?

Again we begin a new Medical Session. Again the Medical Schools are thronged by youths eager for the studies which are to reveal to them all that science has discovered as to the mysterious nature of man. Again we salute the new comers with a few words of congratulation and warning.

Gentlemen, we say, in choosing Medicine as the pursuit of your lives, you have chosen well. You will have a busy life; it may be, a hard and an anxious life, but, on the whole, a happy one. You have chosen a calling that gives healthy work to all the faculties of mind and body, and satisfies all the better longings of man's nature. The preliminary studies of anatomy and chemistry will teach you to be dextrous in the use of the fingers, and accurate in the use of the eyes. Whilst you study the bones of the wrist, you will get the habit of noting minute differences of form; and in the chemical class-room and laboratory you will be imbued with that ancient truth, which you find, indeed, in the writings of the Son of Sirach, but which it is the glory of modern philosophy to have developed and confirmed—that all things are made by "*number, measure, and weight;*" that all things are regulated by the strictest law; hence, that there can be nothing "accidental" or insignificant in nature. The study of animal and vegetable physiology will exercise the powers of memory, of analysis, and comparison, in collecting, storing, sorting, comparing, and classifying facts, and will give you a glimpse at the kindred domains of geology and palæontology, and introduce you to speculations, but too seductive, as to the nature of man and his relations to the rest of the universe. When you come to the practical part of your work—the observation of disease and its treatment—it will be your duty to discover the order that reigns in the midst of what we emphatically call "disorder;" you will learn in what conditions the animal body may pass through its appointed term in the "ease" of health, and how the breach of these laws tends to what we also emphatically call "*dis*-ease," and how the observations of the Physician as to the existence and causes of disease ought to set in motion the minister of religion, the politician, and the schoolmaster, to remove or anticipate those causes; hence the necessity of the Physician in a preventive capacity to the welfare of masses of men, whether in peace or at war. Nor will your studies be confined to the visible and tangible. You will be taught the nature of the human mind, and the practical working of the passions. You will be prepared for the skeleton that mars every feast; for the influence of secret love, grief, remorse, and despondency; and whether it be in the calm life of the virtuous family, or in the turbid and reckless career of the profligate, or in the sad apathy of those who have failed through want of strength or want of foresight, you will have human nature laid naked and bare before you. Other men read of "truths stranger than fiction;" your life will show you realities that beggar romance. You will find that man is a more complex being in fact than he is depicted in books. You will see in the greatest saints some weaknesses, and in the greatest sinners some traces of a better nature. Look into your own bosom, and you will there see the best model of what other men are. If the experience of life leads you to see more to blame in mankind, you will, at any rate, find more to love, and your knowledge of the inherent weakness of human nature will take the sting out of many an ill deed done to yourself, and fill you with the desire to return good for evil. Medicine is a calling to which all other knowledge and all accomplishments are tributary. Whatever you can do well, or know perfectly, will be a help to you. Classics, modern languages, mathematics, any liberal pursuit, in fact, will make you the better able to note actual fact and to comprehend the characters and motives of living men. Medical life is pre-eminently active and social. It is no calling for the recluse or the dreamer. It takes you into the open air, and inures you to all weathers and all seasons. It exacts the highest degree of punctuality and attention. Negligence, forgetfulness, remissness, which would be venial in the merchant or tradesman, would be criminal in the physician. It demands patience, forbearance, good temper, and good manners. It is a calling that constantly humbles us and shows us how impotent is the strongest intellect or the longest life to grasp all the combinations of facts that may be met with. When you have gone through your studies, passed your examination, and obtained your diploma, don't look on yourself as a kind of male Pallas, issuing armed at all points from the head of Jove. Look upon your student term as but the preparation for studies that are to last your lifetime. We have not, and cannot pretend to have, like the Homœopathists and the prophets of Morison's pills, a perfect system, which shall combine all possible facts in Medicine. We are at our best *empirics*, using that word in its ancient and honourable sense. We never can ignore *fact* for *theory*. We never attempt to explain away or deny what we cannot understand. We make it a point of conscience humbly to note all matters of fact, and never to quit the solid ground of observation and experiment. We have no leaders whom we swear by, and whose *ipse dixit* settles a controversy. John Hunter's Museum will remain to all time a monument of the *facts* of nature. His grand theories and so-called science perished long ago. Lastly, in Medicine, there will not be an hour in which you cannot do good to somebody. You will learn constantly to look upon a patient as another self, and then will take just that little extra care which is required to turn the scale between life and death; you will never let it be said of you, "He did his duty, but he did no more;" but you will do your best. Here, surely, are materials for a happy life.

"Yes, but," you may say, "this is too bright a picture. Do we not hear of poverty and distress in the Profession, of men who are constantly striving in vain to make both ends meet, and who bequeath their widows and orphans to their brethren

to take care of?" Of course we do. Some men fail from rashness, some from want of enterprise; some from weakness, some because they trust rogues, some because they are rogues themselves; some from the diseases and injuries which are sure to be the lot of some of us. We are but men, after all! "Then there is the ingratitude and selfishness of patients?" Of course there is, for patients are men as we are; and if they were angels would have very little need of physic.

What professions are there in which complaints are not heard? We know not how the case stands in *business*, nor yet in those new *quasi* professions which have arisen out of modern discoveries in Chemistry and Electricity, or in the Fine Arts of Painting and Music. But all the world knows what is said of the Bar. Attorneys lament that the simplification of legal processes deprives them of business; old officers in the Army and Navy are always saying that the Service is going to the devil; and as for the Church—ask the unbeneficed curates of forty, who have trusted merely to doing their duty well, and have neither gifts of oratory, nor a fortune to buy a living, nor a patron to give one! Mere plodding industry and good temper, without a spark of genius, will enable a Medical man to get a comfortable income, if he settle in the right place and practise on a scale suitable to the people around him. At any rate, it is easier to purchase a practice than a living.

There remains the question, Is Medicine a gentlemanly Profession? is the social position what it should be? Here we need not deny the fact that the Doctor, in the abstract, is not looked upon with as much favour as the officer in the Army or Navy, nor yet as the barrister or parson, and we have neither a woolsack nor a Lambeth. But although officers, or lawyers, or parsons in the abstract shine, as it were, with a light borrowed from the aristocratic and wealthy persons who enter those callings, or from the high positions to which they lead, yet individuals always find their own level. A half-educated parson, more conspicuous for his feats at the dinner table than in the pulpit, is justly despised, though there be Prelates in purple; and the Medical man of good education and manners is always treated as a gentleman, though some of his fraternity may be thought not up to the social mark. If you start with a good education; if you choose creditable associates, and never let yourself be dragged into low dissipation; if you get a good grasp during your early student-life of those *studies of precision*—anatomy, chemistry, natural history, and natural science—which serve as no mean substitutes for a university course, and teach a man to avoid that sure mark of a snob—the talking largely and loosely on what he does not understand—it will indeed be singular if you do not find Medicine a fit pursuit for a gentleman.

As for the question whether you dispense medicines or write prescriptions—whether you are paid by fees or by charges—whether you are call yourself Mr. or Dr., these are minor matters, to be settled by convenience—where you have a choice between two courses, choose the higher. But for the present, look on yourselves as candidates for admission to a noble fraternity, where love of truth, love of work, and love of doing good are the reigning principles, and where you may be more sure of the love, trust, and honour of your fellow-creatures, and the approval of your own conscience, than in any other worldly calling.

Pharmaceutical Society.—School of Pharmacy.—Session extends from the 1st of October to the end of July. Lectures.—On Chemistry and Pharmacy, by Professor Redwood. On Botany and Materia Medica, by Professor Bentley. Fees, from Registered Apprentices and Associates of the Society, for each entire course, One Guinea, do. for either part of a course separately, Half-a-Guinea; from those not connected with the Society, for each entire course, Two Guineas, do. for either part of a course separately, One Guinea.

Metropolitan School of Dental Science.—Winter Session.—Dental Surgery, Mr. Hulme, Wednesdays, 7 p.m. Mechanical Dentistry, Mr. Hockley, Thursdays, 7 p.m. Summer Session.—Dental Anatomy and Physiology, Mr. Fuller, May, 1865. Metallurgy, Mr. Tribe, May, 1865. Fee for the lectures required by the College of Surgeons, £12 12s. Single course of any of the lectures, £3 3s.

DAYS AND HOURS OF INTRODUCTORY LECTURES.

TO BE DELIVERED AT THE DIFFERENT MEDICAL SCHOOLS IN THE METROPOLIS.

	Days and Hours.	
St. Bartholomew's Hospital Medical Coll.	Oct. 3, 5	Mr. Callender.
Charing-cross Hospital and College ..	,, 1, 7	Mr. Hancock.
St. George's Hospital Medical School ..	,, 3, 2	Dr. Page.
Guy's Hospital	,, 1, 2	Braxton Hicks.
King's College Medical Department ..	,, 1, 8	Prof. Cartwright.
London Hospital Medical and Surgical College	,, 3, 3	Dr. Down.
St. Mary's Hospital Medical School ..	,, 1, 8	Mr. Toynbee.
The Middlesex Hospital Medical College	,, 3, 8	Dr. Greenhow.
St. Thomas's Hospital Medical and Surgical College	,, 1, 3	Dr. Clapton.
University College Faculty of Medicine	,, 3, 3	Prof. Quain.
Westminster Hospital and Medical School	,, 3, 8	Dr. Basham.

PRIVATE TEACHERS IN LONDON.

Dr. Barron gives courses of Medical and Surgical tuition adapted to Students for Professional Examination, at his Class-room, Millikin's Chambers, Southwark-street, Borough.

The Drs. Power continue daily their Lectures and Examinations for the Competitive and Pass Examinations at the Junior Medical College, 32, Queen-square, Bloomsbury, W.C.

Dr. Steggall gives instructions to Medical Students in all the branches of their studies, at his residence, 2, Southampton-street, Bloomsbury-square.

Mr. Tuson continues his instructions and demonstrations in Anatomy, Physiology, Pathology, and Surgery, daily, at his residence, 6, Devonshire-street, Portland-place. The examinations and demonstrations are illustrated by recent dissections, models, and anatomical preparations, both dry and in spirits.

Great Northern Hospital, Caledonian-road, N.—Consulting Physician, Dr. Copland. Consulting Surgeon, Mr. Skey. Physicians, Dr. Leared, Dr. Hardinge, Dr. Cholmeley, Dr. F. C. Webb, Dr. Jephson, Dr. Crucknell. Surgeons, Mr. Gay, Mr. W. Adams, Mr. Thomas Carr Jackson, Mr. Edward C. Hulme, Mr. W. Allingham, Mr. Buxton Shillitoe. Obstetric Physician, Dr. Gustavus C. P. Murray. Diseases of the Eye, Dr. Lawrence. Aural Surgeon, Mr. Harvey. Dentists, Mr. Statham, Mr. Charles James Fox. House Surgeon, Mr. C. V. Willett. Operations on Wednesdays at Two o'clock. Medical Practitioners admitted to see the practice of the Hospital on presenting their cards. Cards of admission to the practice of the Hospital will be granted to certified Medical Students on application to the Secretary at the Hospital. Clinical Lectures will be delivered from time to time by Members of the Medical and Surgical Staff.

St. John's Hospital for Skin Diseases, 12, Church-street, Westminster.—Session 1864-65.—Physicians, Tilbury Fox, M.D., J. Mill Frodsham, M.D. Surgeons, Erasmus Wilson, F.R.S., J. L. Milton, M.R.C.S. The Introductory Lecture (to a Course) will be delivered by Erasmus Wilson, Esq., F.R.S., on Thursday, October 13, at 8 p.m. Clinical Lectures will be delivered during the Session by the Medical Officers. Fees for Hospital Practice, etc., for three months, 3 guineas; perpetual, 5 guineas.

Hospital for Sick Children, Great Ormond-street.—Physicians, Dr. West and Dr. Hillier. Assistant-Physicians, Dr. Harris, Dr. Buchanan, Dr. Dickinson, Dr. Sidney Ringer. Surgeon, Timothy Holmes, Esq. Assistant-Surgeon, Thomas Smith, Esq. Surgeon Dentist, Samuel Cartwright, Esq. Clinical Lectures on cases attending or in the Hospital are delivered by the Medical Officers before their visit to the patients during the Winter and Summer Sessions. The Lectures are free to Practitioners on presenting their cards, and to Students after their first year by tickets, to be obtained on application, by letter, to the Secretary, at the Hospital. Fee for six months' attendance, £3 3s.; perpetual, £5 5s.

Queen Charlotte's Lying-in Hospital, Marylebone-road.—Instituted 1752. Rebuilt 1856.—Consulting Physician, Dr. Roget. Consulting Surgeon, Charles Hawkins, Esq. Medical Officers for the In-Patients, Dr. Blakely Brown, Dr. F. W. Mackenzie. Medical Officers for Out-Patients, J. Cholmondely, Esq., G. Brodie, M.D. Secretary, Mr. A. U. Thiselton, who attends at the Hospital on Monday, from Ten to Two. Pupils are admitted to reside and board in the Hospital (after having been examined by the Physicians) for periods of not less than six weeks. In 1863, In-Patients delivered, 386; Out-Patients delivered, 373: total, 759. Terms on application at the Hospital.

The Dental Hospital of London and the London School of Dental Surgery, 32, Soho-square.—Dental Hospital Officers: Messrs. Ibbetson, Samuel Cartwright, John Tomes, Thomas Underwood, Charles Rogers, Robert Hepburn. Fee for the two years' attendance required by the Curriculum, £15 15s. Dental School: Dental Anatomy and Physiology (Human and Comparative), Mr. G. A. Ibbetson. Dental Surgery and Pathology, Mr. Samuel Cartwright, jun. Mechanical Dentistry, Mr. Robert Hepburn. Metallurgy in its Application to Dental Purposes, Mr. G. H. Makins. General Fee for the special Lectures required by the Curriculum: Two Courses on Dental Anatomy, Dental Surgery, Mechanical Dentistry, and One Course of Metallurgy, £15 15s. Further particulars may be obtained on application to the Dental Officer of the day or the Assistant-Secretary.

TABLES

GIVING THE NAMES OF LECTURERS, HOURS OF LECTURE, DAYS OF ATTENDANCE, AND FEES IN THE METROPOLITAN MEDICAL SCHOOLS AND HOSPITALS.

LECTURES.	ST. BARTHOLOMEW'S.						CHARING CROSS.						ST. GEORGE'S.					
	Lecturers.	Days and Hours.	Fees. 1 Course		Fees. 2 Courses		Fees. Perpetual.		Lecturers.	Days and Hours.	Fees. 1 Course		Fees. 2 Courses		Fees. Perpetual.		Lecturers.	Days and Hours.	Fees. 1 Course		Fees. 2 Courses		Fees. Perpetual.	
WINTER SESSION.			£	s.	£	s.	£	s.			£	s.	£	s.	£	s.			£	s.	£	s.	£	s.
PRINCIPLES AND PRACTICE OF MEDICINE	Dr. Black Dr. Kirkes	M 2.30 Tu and Th 3.30	5	5	..		7	7	Dr. Chowne Dr. Willshire	M W F 2.30	4	4	6	6	7	7	Dr. Pitman	..	6	6	..		6	6
SURGERY	Mr. Lawrence Mr. Coote	M W F 3.30	5	5	..		7	7	Mr. Hancock	M Th F 12.30	3	3	5	5	6	6	Mr. Tatum	..	4	4	..		6	6
DESCRIPTIVE & SURGICAL ANATOMY	Mr. Skey Mr. Holden	Tu W Th F 2.30	5	5	7	7	10	10	Mr. Canton	M Tu W Th F 9	4	4	6	6	7	7	Mr. Holmes Mr. Rouse	..	6	6	..		8	8
ANATOMICAL DEMONSTRATIONS.	Mr. Callender Mr. Smith	Daily 10.15 till 2	3	3	5	5	..		Dr. Goldsbro'	Daily exc. Sat.	2	2	4	4	4	4	Mr. T. Edgelow Mr. Pick	..	..		..		..	
GENERAL ANATOMY AND PHYSIOLOGY	Mr. Savory	M Tu Th F 9.15	5	5	7	7	10	10	Dr. Salter	M Tu W Th F 3.30	4	4	6	6	7	7	Dr. W. Ogle	..	6	6	..		8	8
CHEMISTRY	Dr. Odling	M F 10.30 W 10	5	5	..		7	7	Mr. Heaton	M W F 10.30	5	5	6	6	7	7	Dr. Noad	..	6	6	..		8	8
NATURAL PHILOSOPHY ..	..	..	..		..		..		..	W Th F 11.15	3	3	..		..		..	..	..		..		..	
HOSPITAL PRACTICE—																								
Physicians	Dr. Farre Dr. Jeaffreson Dr. Black Dr. Kirkes	M W F 10 M W F 8 Th 1 M Tu Th 1 M W F 1.30	12	12	18 6 mths	18	26	5	Dr. Chowne Dr. Willshire	Daily 1	10 6 mths	10	15 12 mths	15	21	0	Dr. Page Dr. Pitman Dr. Fuller Dr. Barclay Dr. R. Lee, *obs.*	Daily 1	8 6 mths	8	16 1 year	16	25	4
Assistant-Physicians ..	Dr. Martin Dr. Edwards Dr. Harris Dr. Andrew	M Th 11 Tu F 11 W 11 S 11	..		..		..		Dr. H. Salter Dr. Headland	12 to 2	..		..		..		Dr. J. Ogle Dr. Wadham	..	..		..		..	
Surgeons	Mr. Lawrence Mr. Wormald Mr. Paget Mr. Coote	Tu F S 1.30 M Th S 1.30 M Tu Th F S 1.30 M W F S 1.30	15 6 mths	15	21 1 year	0	26	5	Mr. Hancock Mr. Canton	Daily 1	10 6 mths	10	15 12 mths	15	21	0	Mr. Tatum Mr. P. Hewett Mr. Pollock Mr. H. Lee	Daily 1	15 6 mths	15	21 1 year	0	42	0
Assistant-Surgeons	Mr. Holden Mr. Savory Mr. Callender Mr. T. Smith	M Th 12 W S 12 Tu 12 F 12	..		..		..		Mr. Hird Mr. Barwell	12 to 2	..		..		..		Mr. Holmes Mr. Brodhurst	..	..		..		..	
Physician-Accoucheur ..	Dr. Greenhalgh	W 1.30 S 9	..		..		..		..	..	..		..		..		..	..	..		..		..	
CLINICAL MEDICINE ..	Dr. Farre Dr. Black Dr. Kirkes	Tu 12	..		..		..		By the Physicians	..	..		..		..		By the Physicians	..	..		..		..	
CLINICAL SURGERY ..	Mr. Lawrence Mr. Paget Mr. Coote	M I Th 1.30 S 9	..		..		..		By the Surgeons	..	..		..		..		By the Surgeons	..	..		..		..	
DISEASES OF WOMEN ..	Dr. Greenhalgh	Alt W 9	..		..		..		..	..	..		..		..		..	..	..		..		..	
MORBID ANATOMY AND PATHOLOGY	Dr. Andrew The Surgeons	12	..		..		..		..	..	..		..		..		Dr. Ogle Mr. Lee	..	..		..		..	
SUMMER SESSION.																								
MATERIA MEDICA	Dr. Farre	Tu W Th S 10	5	5	..		6	6	Dr. Headland	M W F 9	3	3	5	5	6	6	Dr. Barclay	..	5	5	..		6	6
BOTANY	Dr. F. Harris	M W S 9	3	3	..		4	4	Mr. H. Coultas	M W F 10.30	2	2	3	3	4	4	Dr. M. Masters	..	3	3	..		4	4
FORENSIC MEDICINE ..	Dr. Martin	M F 10 Th 11	3	3	..		4	4	Mr. Hird Mr. Tuson	M W F 4	2	2	3	3	4	4	Dr. Fuller	..	3	3	..		4	4
MIDWIFERY	Dr. Greenhalgh	Tu W F S 9	5	5	..		6	6	Dr. Chowne Dr. Head	M W Th 3	3	3	5	5	6	6	Dr. R. Lee	..	5	5	..		6	6
PRACTICAL CHEMISTRY ..	Dr. Odling	M Tu Th F 10.15 to 1	2	2	..		3	3	Mr. Heaton	Tu Th 10	2	2	..		..		Dr. Noad	..	4	4	..		..	
COMPARATIVE ANATOMY..	Mr. Callender	Tu F 2.30 *Summer*	2	2	..		3	3	Mr. Barwell	Tu Th S 3.30	3	3	..		4	4	..	..	..		..		..	
DRESSERSHIPS	..	..	12 3 mths	12	18 6 mths	18	26 1 year	5	..	..	..		..		..		..	..	..		..		..	
DENTAL SURGERY	..	..	..		..		..		..	..	..		..		..		Mr. Vasey	..	1	1	..		..	
OPERATIVE SURGERY ..	Mr. Callender Mr. Smith	..	2	2	..		..		..	..	..		..		..		Mr. Holmes	..	4	4	..		..	
PRACTICAL PHARMACY ..	Mr. Wood	..	..		..		..		..	..	..		..		..		..	..	..		..		..	
Entrance to the Lectures and Hospital Practice for the Licences of the Col. of Phys. and Soc. of Apoth., and the M.R.C.S. Exam.	..	..	..		..		99	15	..	..	..		..		68	7	Compounding Fee	..	..		..		100	0
To the Lectures only	..	..	..		..		54	12	..	..	..		..		44	2	..	..	..		..		90	0
Limited to all Lectures ..	..	..	..		..		65	2	..	..	..		..		..		..	..	..		..		..	

LECTURES.	GUY'S. Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.	KING'S COLLEGE AND HOSPITAL. Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.	LONDON. Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.
WINTER SESSION.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.
PRINCIPLES AND PRACTICE OF MEDICINE	Dr. Owen Rees Dr. Gull	M W F 3.30	5 5	..	..	Dr. G. Johnson	Tu S 4 Th 5	7 7	..	7 7	Dr. Parker. Dr. H. Davies	Tu S 10.15 W 9.15	5 5	..	6 6
SURGERY	Mr. Birkett Mr. Poland	Tu Th S 3 30	5 5	..	..	Mr. Fergusson	M W F 5	5 5	..	7 7	Mr. Hutchinson	M Tu F 3	5 5	..	6 6
DESCRIPTIVE & SURGICAL ANATOMY	Mr. C. Forster Mr. Durham	Tu W Th F 9	5 5	..	..	Mr. Partridge	Daily 9	6 6	..	9 9	Mr. Adams Mr. L. S. Little	M Tu Th F 9.15	5 5	..	8 8
ANATOMICAL DEMONSTRATIONS	Mr. W. Moxon, M.B. Mr. Bankart Dr. Fagge	Daily 9 to 4	5 5	..	..	Mr. Wood *Ass.-Demonsts.* Mr. Sherwin Mr. Bellamy Mr. Bell	..	..	..	..	Mr. Little Mr. Rivington	Daily 10 to 3	5 5	..	8 8
GENERAL ANATOMY AND PHYSIOLOGY	Dr. Pavy	Tu Th S 12.30	5 5	..	..	Dr. L. Beale	M W Th F 4	6 6	..	9 9	Mr. J. Couper Dr. Hughlings Jackson	M W Th 4	4 4	..	6 6
CHEMISTRY	Dr. Alf. Taylor	Tu Th S 11	5 5	..	..	Dr. Miller	M W Th S	7 7	..	9 9	Dr. Letheby	M W F 10.30	7 7	..	7 7
HOSPITAL PRACTICE—						Mr. Hadow *dem*	10.15								
Physicians	Dr. Barlow Dr. Owen Rees Dr. Gull Dr. Oldham *obs.*	M F 1.30 W S 1.30 Tu F 1.30 Tu Th 1.30	10 10 mths	15 15 3 mths 6 mths	26 5	*In-patients*— Dr. Johnson Dr. Beale Dr. Garrod *Out-patients*— Dr. Guy Dr. Priestley, *obs.*	M W F 1.30 Tu Th S 9 Tu Th S 1.30 M W F 1 Tu Th S 1.30	10 10 6 mths	15 15 18 mths	21 0	Dr. Fraser Dr. Davies Dr. Parker	Daily 8 or 1	6 6 6 mths	12 12 Period reqd. by Apoth. H.	20 0
											Dr. Barnes, *obs.*	Tu 2, W S 1			
Assistant-Physicians ..	Dr. Habershon Dr. Wilks Dr. Pavy Dr. J. B. Hicks *obs.*	M 12 W 12 F 12 Th S 12 M F 1.30	..	..	..	Dr. C. Evans Dr. A. Duffin Dr. Harley Dr. Playfair *obs.* Mr. Day, *obs.*	M W F 1 win M W F 1 Tu Th S 1 Tu Th S 12.30 win Tu Th S 12.30 sum	..	..	..	Dr. A. Clark Dr. Ramskill Dr. Down Dr. Hughlings Jackson	Daily 1	..	..	..
Surgeons	Mr. Cock Mr. Hilton Mr. Birkett Mr. Poland	M Th S 1.30 M Th 1.30 M F 1.30 W S 1.30	10 10 3 mths	15 15 6 mths	26 5	Mr. Fergusson Mr. Partridge	Tu Th S 1.30 M W F 1.30	15 15 6 mths	21 0 21 mths	26 5	Mr. Adams Mr. Curling Mr. Hutchinson	Daily 1	8 8 6 mths	18 18 18 mths	25 0 3 years
Assistant-Surgeons	Mr. C. Forster Mr. Bryant Mr. A. Durham Mr. Bader *oph.* Mr. Hinton *aur* Eye Wards	S 12 M Th 12 W 12 Tu F 12 Tu 12 M Th 1.30	..	..	..	Mr. Wood Mr. H. Smith Mr. Mason Mr. Watson	Th Th S 1 sum M W F 1 M W F 1 Tu Th S 1	..	..	..	Mr. Maunder Mr. Couper Mr. Little Mr. Rivington	Daily 1	..	..	..
CLINICAL MEDICINE ..	*Winter*— Dr. Barlow Dr. O. Rees Dr. Gull *Summer*— Dr. Habershon Dr. Wilks Dr. Pavy	Weekly Weekly	..	..	..	Dr. Johnson Dr. Beale Dr. Garrod Dr. Priestley *obs.*	Every alt. M 2 p.m. S 9 Every alt. Tu 2 p.m. Every alt. Th 3	..	..	..	By the Physicians	..	..	..	..
CLINICAL SURGERY ..	*Winter*— Mr. Cock Mr. Hilton Mr. Birkett Mr. Poland *Summer*— Mr. C. Forster Mr. Bryant Mr. Durham	Weekly Weekly	..	..	..	Mr. Fergusson Mr. Partridge	Every alt. Th 2 p.m. Every alt. F 2 p.m.	..	..	..	By the Surgeons	..	..	..	..
DISEASES OF WOMEN ..	Dr. Oldham Dr. Hicks	Weekly	..	..	..	..	..	..	..	..	..	..	..	..	..
MORBID ANATOMY AND PATHOLOGY	Dr. Wilks	Daily 2.30 S 8.45 sum	..	..	..	Dr. Beale, Physicians & Surgeons	Tu 4 sum	2 2	..	..	Mr. Little	2.30	..	..	..
SUMMER SESSION.															
MATERIA MEDICA	Dr. Habershon	Tu Th S 3	4 4	..	..	Dr. A. B. Garrod	Tu W Th F 8 a.m.	4 4	..	6 6	Dr. J. L. Down	M W Th 9·15	3 3	..	4 4
BOTANY	Mr. Johnson	Tu Th S 11.30	4 4	..	..	Mr. Bentley	M Tu Th F 12.15	3 3	..	4 4	Dr. Dresser	M W F 10	3 3	..	4 4
FORENSIC MEDICINE ..	Dr. A. Taylor	Tu Th S 10	4 4	..	..	Dr. Guy	M Tu W F 3	3 3	..	4 4	Dr. Ramsbotham Mr. Rodgers	Daily exc. Sat 10.15	3 3	..	4 4
MIDWIFERY	Dr. Oldham Dr. B. Hicks	Tu W Th F 8.45 a.m.	5 5	..	..	Dr. W. O. Priestley	Tu W Th F 9	6 6	..	6 6	Dr. Ramsbotham	M Tu W Th 3	4 4	..	6 6
PRACTICAL CHEMISTRY ..	Dr. Stevenson	M W F 10 to 1	4 4	..	..	Mr. C. L. Bloxam	M W F 10.15	4 4	..	8 8	Dr. Letheby	M W F 11.15	2 2	..	..
COMPARATIVE ANATOMY..	Dr. Pavy Dr. Moxon	Tu S 12.30	4 4	..	..	Mr. R. Jones	M W F 4	3 3	..	4 4	Mr. W. Rivington	F 11.15	2 2	..	..
PRACTICAL HISTOLOGY ..	..	..	..	..	..	..	..	..	..	..	Mr. Couper Dr. Hughlings Jackson	..	..	..	..
NATURAL PHILOSOPHY ..	Dr. Fagge	F 12 win.	..	..	..	..	..	..	..	..	..	..	..	..	..
OPERATIVE SURGERY ..	Mr. Bryant	M 3	..	..	..	..	..	..	..	..	Mr. Maunder	..	..	..	..
DENTAL SURGERY ..	Mr. Salter	..	..	..	..	Mr. Cartwright	Tu F 9	6 6	..	8 8	Mr. Barrett	..	2 2	..	..
CUTANEOUS DISEASES ..	Dr. Habershon	M 1	..	..	..	..	..	..	..	..	..	..	..	..	..
OPHTHALMIC SURGERY ..	Mr. Poland Mr. Bader	M 8.45 a.m.	..	..	..	..	..	..	..	..	Mr. J. Hutchinson	Tu F 9	..	..	..
USE OF MICROSCOPE ..	Mr. Durham	M 12 30	..	..	..	..	..	..	..	..	..	..	..	..	..
TUTOR'S CLASS	Dr. Moxon Mr. Bankart Dr. Hilton Fagge	..	..	..	..	..	Daily 5 win 9 sum	3 3	..	..	Mr N. Heckford Mr J. R. B. Dove	..	..	..	..

Fee for Hospital Practice and Lectures, first year, £40; second year, £40; and £10 for each succeeding year. A Perpetual Ticket, £100.

Fee for Lectures required by College and Hall 61 19

Ditto, including Hospital Practice and Matriculation.. .. £99 6s. 6d.

Fees for the Lectures and Hospital Practice, for the Licences of the Royal College of Physicians, Society of Apothecaries, and the Royal College of Surgeons.. .. 88 4

To the Lectures alone 50

LECTURES.	ST. MARY'S. Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.	MIDDLESEX. Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.	ST. THOMAS'S. Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.
WINTER SESSION.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.
MEDICINE	Dr. Chambers Dr. Handfield Jones	M W Th 4	4 4	..	6 6	Dr. Stewart Dr. Goodfellow	Tu Th S 9	6 6	..	6 6	Dr. Peacock	Tu Th S 2	..	..	..
SURGERY	Mr. Lane Mr. Spencer Smith	Tu F 4 W 3	4 4	..	6 6	Mr. Shaw	M W F 9	4 4	..	6 6	Mr. Le Gros Clark	Tu Th F 3	..	..	..
DESCRIPTIVE & SURGICAL ANATOMY	Mr. Gascoyen	M Tu Th F 2.45	6 6	..	8 8	Mr. Moore	Daily exc. S 12	6 6	..	10 10	Mr. S. Jones	Daily exc. S 12	..	..	..
ANATOMICAL DEMONSTRATIONS	Mr. Taylor	Daily exc. Th 9 to 5	3 3	..	..	Dr. R. Liveing	Tu Th 3	4 4	..	6 6	Mr. Rainey Mr. Croft	Daily 9 to 3	..	..	..
PHYSIOLOGY	Dr. Broadbent Dr. Lawson	M Tu Th F 9 W S 12	6 6	..	8 8	Mr. de Morgan	M W F 4	4 4	..	6 6	Dr. Brinton	M Th S 4	..	..	..
CHEMISTRY	Dr. Matthiessen	Tu Th S 10.15	5 5	..	7 7	Mr. T. Taylor Mr. Heisch	M W F S 11	6 6	..	8 8	Dr. Bernays	Tu Th S 10.30	..	..	..
HOSPITAL PRACTICE:	*In-patients—*														
Physicians	Dr. Alderson Dr. Chambers Dr. Sibson	M Th 1.15 W S 1.15 Tu F 1.15	7 7 6 mths	12 12 1 year	21 0	Dr. Stewart Dr. Goodfellow Dr. H. Thompson	Daily 1	10 10 6 mths	16 16 18 mths	21 0	Dr. Barker Dr. J. R. Bennett Dr. Goolden Dr. Peacock Dr. Bristowe Dr. Brinton Dr. Barnes, *obs.*	Physicians' visits, 8.30 to 9.30 a.m.	..	..	..
	Out-patients—														
	Dr. H. Jones Dr. Sieveking Dr. Markham Dr. T. Smith, *obs.*	M Th 1 Tu F 1 W S 1 Tu S 1.30				Dr. J. Hall Davis, *obs.*	W S 1								
Assistant-Physicians	Dr. Grailly Hewitt *obs.*	Tu S 1.30	..	..	..	Dr. Murchison Dr. Greenhow Dr. J. B. Sanderson	..	..	..	..	Dr. Clapton Dr. Gervis, *obs.*	..	..	..	..
	In-patients—														
Surgeons	Mr. Lane Mr. Ure Mr. Spencer Smith	Tu F 1 15 M Th 1.15 W S 1.15	9 9 6 mths	21 0 1 year	31 10	Mr. Shaw Mr. de Morgan Mr. Moore Mr. Nunn	Daily 1	12 12 12 mths	18 18 3 years	21 0	Mr. Solly Mr. Le Gros Clark Mr. Simon	Surgeons' visits, 8.30 to 9.30 a.m.	..	..	..
	Out-patients—														
	Mr. H. Walton Mr. J. Lane Mr. Ernest Hart, *opht.* Mr. Toynbee *aural*	W S 1 Tu F 1 Tu S 1.30 M Th 1.30				Mr. Soelberg Wells, *opht.*	M Th S 12.30								
Assistant-Surgeons	Mr. Gascoyen	M Th 1	..	..	..	Mr. Hulke Mr. Lawson	..	..	..	..	Mr. S. Jones Mr. J. Croft	..	..	..	..
CLINICAL MEDICINE	Dr. Alderson Dr. Chambers Dr. Sibson	2 cea-week 1.15	..	..	..	The Physicians The Phys-Acc.	bi-wkly 3 M 10	..	..	..	Dr. Barker Dr. Bennett Dr. Goolden Dr. Bristowe Dr. Peacock Dr. Brinton	*Winter—* M 2 W 2 W 2 W 2 *Summer—* F 2	..	..	..
CLINICAL SURGERY	Mr. Lane Mr. Spencer Smith	2 cea-week 1.15	..	..	..	The Surgeons.	bi-wkly 3 and 12.15 (Sat)	..	..	..	By the Surgeons		..	..	..
						The Oph-Surg.	S 10								
DISEASES OF WOMEN	..	..	..	..	..	..	..	..	..	..	Dr. Barnes Dr. Gervis	..	..	..	..
MORBID ANATOMY AND PATHOLOGY	With Physiology & pst. m. ex., Mr. Naylor	..	..	..	..	Mr. Sibley Dr. Murchison	Tu Th 4	2 2	..	3 3	Mr. J. Wade Hicks, M.B.	Daily 2.30	..	..	..
SUMMER SESSION.															
MATERIA MEDICA	Dr. Sieveking	Tu W Th F 8 a.m	4 4	..	6 6	Dr. H. Thompson	M W F 9	3 3	..	5 5	Dr. Bristowe	..	..	..	..
BOTANY	Dr. Dresser	M W F 12	3 3	..	4 4	Dr. T. S. Cobbold	M W F 3	3 3	..	4 4	Dr. Clapton	..	..	..	..
FORENSIC MEDICINE	Dr. Randall	M Tu Th 10	3 3	..	4 4	Dr. Greenhow	Tu Th S 9	3 3	..	5 5	Dr. Stone	..	..	..	..
MIDWIFERY	Dr. Tyler Smith Dr. Grailly Hewitt	Daily ex. S 9	4 4	..	6 6	Dr. J. Hall Davis	M W F 10	5 5	..	7 7	Dr. R. Barnes	..	..	..	..
PRACTICAL CHEMISTRY	Dr. Matthiessen	Tu Th S 9.30—1	3 3	..	..	Mr. Taylor Mr. Heisch	M Tu W F 11	3 3	..	..	Dr. Bernays	..	..	..	..
COMPARATIVE ANATOMY	Mr. S. G. Mivart	W F 10	2 2	..	3 3	Dr. T. S. Cobbold	W F 4	2 2	..	3 3	Mr. Ord, M.B.	..	..	..	..
OPHTHALMIC SURGERY	Mr. Ernest Hart	Tu 2.30	2 2	..	..	Mr. Soelberg Wells	S 10 winter & summer	..	..	..	..	..	..	..	..
PRACTICAL HISTOLOGY	Drs. Broadbent and Lawson, with Physiology	..	..	..	..	Dr. Woodham Webb	Tu Th 3	10 10	..	..	Mr. Rainey	S 1 winter	..	..	..
OPERATIVE SURGERY	Mr. J. Lane	Winter	..	..	..	Mr. Nunn	S Winter	..	..	..	..	..	..	..	..
DENTAL SURGERY	Mr. Sercombe	Winter	..	..	..	..	..	..	..	..	Mr. Elliott	Tu F 11	..	..	..
NATURAL PHILOSOPHY	Mr. Balmanno Squire, M.B.	F 2.45	2 2	..	3 3	..	..	..	..	..	..	..	..	..	..
GENERAL PATHOLOGY	..	..	..	..	..	..	..	..	..	..	Mr. Simon	..	..	..	..
AURAL SURGERY	Mr. Toynbee	Th 2 30	2 2	..	..	..	..	..	..	..	..	..	..	..	..
PUBLIC HEALTH	Dr. Randall, with For. Med.	..	..	..	..	Dr. Greenhow	M 4	2 2	..	..	..	..	..	..	..
PRACTICAL PHARMACY	..	..	3 3 3 mths	6 6 6 mths	10 10 12 mths	..	..	5 5 6 mths	8 8 12 mths	..	..	..	..	..	..
Fees for the Lectures and Hospital Practice, for the Licences of the Royal College of Physicians, Society of Apothecaries, and the Royal College of Surgeons	..	..	..	..	89 5	.	..	..	..	88 4	..	..	..	..	..
To the Lectures alone	..	..	..	..	52 10	..	..	..	..	53 4	..	..	..	..	..
Unlimited	..	..	..	..	£105	..	..	..	..	..	..	..	..	..	99 0

LECTURES.	UNIVERSITY COLLEGE AND HOSPITAL.					WESTMINSTER.				
	Lecturers.	Days and Hours.	Fees. 1 Course	Fees. 2 Courses	Fees. Perpetual.	Lecturers.	Days and Hours.	Fees. 1 Course	Fees. 2 Courses	Fees. Perpetual.
WINTER SESSION.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.
MEDICINE	Dr. Jenner	Day. ex. S 4	6 10	..	8 0	Dr. Basham	M Th F 4	5 5	..	7 7
SURGERY	Mr. Erichsen	Tu Th F 5	4 10	..	6 0	Mr. Holthouse	Tu W 4 Th 5	5 5	..	7 7
DESCRIPTIVE ANATOMY	Mr. Ellis	Daily 9	7 7	..	10 10	Mr. Heath	Tu W Th F 9.15	5 5	..	7 7
DEMONSTRATIONS	Mr. Ellis Mr. P. Mason	Daily				Mr. Teevan	Daily 10—1	2 2	..	3 3
PHYSIOLOGY AND GENERAL ANATOMY	Dr. Sharpey	Daily ex. S 10	6 0	..	9 0	Mr. Power	M W F 3	5 5	..	7 7
CHEMISTRY	Dr. Williamson	Daily ex. S 11	6 0	..	9 0	Dr. Dupré	Tu Th 3 F 10.30	5 5	..	7 7
HOSPITAL PRACTICE—										
Physicians	Dr. Jenner Dr. Hare Dr. Reynolds	Daily 1	..	..	..	Dr. Basham Dr. Fincham Dr. Radcliffe	M Th 1.30 W S 1.30 Tu F 1.30	8 8 6 months	12 12 1 year	21 0
	Dr. Murphy, *obs.*	Three times a week				Dr. F. Bird, *obs.*	Tu F 3			
Assistant-Physicians	Dr. Harley Dr. W. Fox Dr. S. Ringer	..				Dr. Anstie Dr. Gibb Dr. Willis	M Th 1 Tu F 1 W S 1	8 8 6 months	12 1 1 year	21 0
Surgeons	Mr. Quain Mr. Erichsen Mr. Marshall Mr. H. Thompson	Daily 2				Mr. Holt Mr. Brooke Mr. Holthouse	M Th 1.30 Tu F 1.30 W S 1.30			
	Mr. W. Jones, *oph.*	M W F 1								
Assistant-Surgeons	Mr. Streatfeild, *oph.*					Mr. Hillman	M Th 1	..	..	..
	Dr. Berkeley Hill	..			26 5	Mr. Power Mr. Heath	W S 1 Tu F 1			
	Dr. Hillier, Phy. to Skin Infirmary	Once a week								
CLINICAL MEDICINE	Dr. Jenner Dr. Hare Dr. Reynolds	Once a fortnight Twice a week 1—3	For 6 months to the Physicians' and Surgeons' practice, £15 15s. To either separately, £10 10s.	For 1 year to the Physicians' and Surgeons' practice, £21. To either separately, £15 15s.	..	By the Physicians	Weekly	..	..	..
CLINICAL SURGERY	Mr. Quain Mr. Erichsen Mr. W. Jones, *oph.*	Twice a week Once a week Once a fortnight			..	By the Surgeons	Weekly	..	..	..
MORBID ANATOMY	Dr. W. Fox	Tu W F 9 summer	3 0	..	4 0	Dr. Anstie Mr. Power	..	..	..	..
SUMMER SESSION.										
MATERIA MEDICA	Dr. Ringer	Daily except M S	4 0	..	6 0	Dr. Anstie	Tu Th F 3	3 3	..	4 4
BOTANY	Mr. Oliver	Daily except S 4	3 0	..	4 0	Dr. Syme	M W F 11.30	3 3	..	4 4
FORENSIC MEDICINE	Dr. Harley	Tu W Th F 10	3 0	..	4 4	Dr. Fincham Dr. Gibb	M W F 3	3 3	..	4 4
MIDWIFERY	Dr. Murphy	Daily except S 12	6 0	..	6 0	Dr. Bird	Tu Th F 4	4 4	..	5 5
PRACTICAL CHEMISTRY	Dr. Williamson	Tu W Th F 11	4 0	..	..	Dr. Dupré	Tu Th 9.30	2 2	..	..
COMPARATIVE ANATOMY	Dr. Grant, *with Zoology*	Daily except S 3 from Oct. to June	8 0	..	9 0	Mr. Power	W S 9.30	2 2	..	..
OPERATIVE SURGERY	Mr. Marshall in April or May	Daily 7.30 a.m. 6 p.m.	5 5	..	..	..	..	..	..	..
DENTAL SURGERY	Mr Ibbetson in Jan	Tu Th 6	1 1	..	..	..	..	..	..	..
NATURAL PHILOSOPHY	Prof. Potter	M W F 3	6 0	..	..	Mr. Brooke	M 4 sum.	1 1	..	..
OPHTHALMIC SURGERY	Mr. W. Jones	Tu Th	2 0	..	..	..	..	..	..	..
PALÆO-ZOOLOGY	Dr. Grant	Daily except S 3 sum.	1 0	..	..	..	..	..	..	..
HISTOLOGY AND PRACTICAL PHYSIOLOGY	Dr. Harley	M W 5 winter	3 0	..	..	..	..	..	..	..
MENTAL DISEASES	Dr. Sankey	Bi-weekly	2 0	..	..	..	..	..	..	..
PRACTICAL PHARMACY	..	..	3 3	..	5 5	..	..	..	..	..
			3 months		6 months					
Fees for the Lectures and Hospital Practice for the Licences of the Royal College of Physicians, Society of Apothecaries., and M.R.C.S.	..	..	..	..	94 13	..	..	..	..	78 15
For the Lectures alone	..	..	..	..	67 13	..	..	..	..	49 7

ADDITIONAL INFORMATION RESPECTING THE METROPOLITAN SCHOOLS, &c.

ST. BARTHOLOMEW'S HOSPITAL AND MEDICAL COLLEGE.

Fees for Lectures and Hospital Practice are payable by instalments,—£31 10s. at the beginning of the first Winter Session, £31 10s., at the beginning of the first Summer Session, £36 15s. at the beginning of the second Winter Session. The Midwifery-Assistant, the Clinical Clerk to the Physicians and to the Physician-Accoucheur, and the Clerks to the Assistant-Physicians and Assistant-Surgons are chosen from the most diligent Students.

The following Scholarships and Prizes are awarded:—Senior Scholarship, of the value of £50 Medicine, Surgery, and Materia Medica. Senior Scholarship, of the value of £50 Anatomy, Physiology, and Chemistry. Scholarships of the value of £25 each will be awarded to those Students who are placed second in the Examinations for the Senior Scholarships. Junior Scholarships, of the value of £50, £30, and 20 are awarded after the General Examination at the end of the Summer and Winter Sessions. Wix Prize, founded 1842, is awarded for the best Essay on "The Connexion between Revealed Religion and Medical Science." Hichen's Prize founded 1851. Subject of Examination.—Bishop Butler's Analogy. Bentley Prize, founded 1842. For the best Report of Surgical Cases occurring in the Wards of the Hospital during the previons year. It is expected that the Reports will comprise the Histories, Progress, Treatment, and Results of not less than Twelve Cases, with observations thereupon. Foster Prize, founded 1852. Subject of Examination:—Practical Anatomy—Senior. Treasurer's Prize. Subject of Examination:—Practical Anatomy—Junior. The Medical Tutor, Mr. Lloyd, examines first year's Students weekly in the subjects of their studies.

A Collegiate Establishment, in which Students are lodged and boarded, exists in connexion with the Hospital. The Warden is Mr. J. Andrew, M.B. Each Student pays an entrance fee of £2 2s. The expense of board, lodging, etc., is from £1 10s. to £1 13s. a week.

All communications must be addressed to Dr. Edwards or Mr. Callender, at the Hospital.

CHARING-CROSS HOSPITAL.

Students pay a Matriculation fee of £2 2s. on entering to their studies. Those Students who enter to separate Courses of Lectures, or to Hospital Practice only, do not pay the Matriculation Fee. Payment of Fees may be made either in one sum (£70 9s.) on Matriculation, or in two sums, the first (£36 5s. 6d.) at the commencement of the Winter Session, the second (£34 3s. 6d.) immediately after the first or Christmas vacation, unless under special circumstances other arrangements are made at the time of entering. Matriculated Students have the privilege of attending the course of Practical Microscopical Demonstrations on Healthy and Diseased Structures, given by Dr. Salter in the summer; the Lectures upon the Diseases of the Eye delivered by Mr. Hancock, at the Royal Westminster Ophthalmic Hospital, as well as the practice of that institution.

Free Scholarships.—Candidates for Free Scholarships are required to be the sons of Professional men, of reduced circumstances and position, or of gentlemen in a corresponding station of society, and are to have had a

classical education fitting them for the Medical Profession. They are to send in their application and testimonials before August 1. A printed form for that purpose will be supplied to them on the written application of the Candidates themselves, addressed to the Managers of the College, which application must be accompanied by the official certificate of the candidates having passed the Preliminary Classical Examination either of the London University, of the College of Physicians, the College of Surgeons, or of the Society of Apothecaries.

The Medals and Testimonials of Honour are awarded in conformity with the following arrangement:—Competitors for the Governors' Clinical Medals are to have attended the Medical and Surgical Practice of the Hospital, for the full period required to qualify for examination by the College of Surgeons and Society of Apothecaries. Competitors for the Silver Class Medals, and Testimonials of Honour of the Senior Classes are to be in the last Session of their attendance in the classes for the Medal or Testimonials for which they are competitors. Competitors for the Bronze Medals and Testimonials of Honour of the Junior Classes are to have completed, when the current Session shall be ended, the first Session of attendance, in the classes for the Medal or Testimonial for which they are competitors. In those Classes of which only one Session is required by the College of Surgeons and Society of Apothecaries, a Silver Medal is offered for competition instead of a Bronze Medal.

For further information apply to Mr. Hancock, Dean of the Medical College.

ST. GEORGE'S HOSPITAL.

Payment of Fees.—One half the fee for attendance on Lectures and Hospital Practice required by the Examining Boards may be paid at the commencement of the first Winter Session, and one-half at the commencement of the second Winter Session.

Exhibitions and Prizes.—"The William Brown Exhibition," of £40 per annum, tenable for three years: This Exhibition is competed for by perpetual pupils who have commenced their third, but not completed their fourth, Winter Session. It will be "bestowed on the Candidate who shall show the best general fitness for the exercise of the Medical Profession, and whose moral conduct shall in all respects be satisfactory." Sir Charles Clarke's Prize for Good Conduct: The interest of £200 Consols to be awarded annually to the Student of the Hospital "who, by reason of his general good conduct during the preceding year, should be considered the most deserving." The Thompson Medal: A Silver Medal to be awarded annually for the best Clinical Report of Medical and Surgical Cases observed in the Hospital during the preceding twelve months. Sir Benjamin Brodie's Clinical Prize in Surgery will be awarded to the Perpetual Pupil of the Hospital who shall have delivered to the Surgeons the best Report of not more than twenty Surgical cases which have occurred in the Hospital during the preceding twelve months. The Lewis Powell Clinical Prize in Medicine will be awarded to the Perpetual Pupil of the Hospital who shall produce the best Report of not more than twenty Medical cases which have occurred in the Hospital during the preceding twelve months. The Henry Charles Johnson Memorial Prize in Anatomy will be awarded to that Pupil who shall, in the judgment of the Medical School Committee, exhibit the greatest proficiency in Practical Anatomy. General Proficiency Prizes: To Pupils in their first year, £10 10s.; to Pupils in their second year, £10 10s.; to Pupils in their third year, £10 10s.

House-Surgeons.—The appointment is made half-yearly, on the nomination of the Medical School Committee, from among the Surgeons' Perpetual Pupils.

Clinical Assistants.—Every Pupil entering to the Medical Practice must hold the office of Clinical Assistant to one of the Physicians for a period of at least three months. Every Pupil entering to the Surgical Practice must hold the office of Clinical Assistant to one of the Surgeons for a similar period.

Dressers.—Every Pupil entering to the Surgical Practice must hold the office of Dresser for a period of three months; but Perpetual Pupils have the privilege of holding the office for a second period of three months.

Curator.—A Curator of the Pathological Museum is appointed annually from among the Senior Pupils, with a salary of £50 per annum.

Registrars.—A Medical and a Surgical Registrar are appointed annually from among the Senior Pupils, each with a salary of £20 per annum.

An *Obstetric Assistant* is appointed annually from among the Senior Pupils, and is eligible for re-appointment. He resides and boards in the Hospital, receives a yearly salary of One Hundred Pounds, and must be a legally qualified Practitioner.

For further information apply to Dr. Barclay or Mr. Hammerton.

GUY'S HOSPITAL.

Voluntary Examinations are held at four periods of the Student's Course, as follows:—1st.—At Entrance, and will take place this year on Monday, October 10. It will comprise Elementary Classics, Ancient and Modern History, and Mathematics. The Candidate who shall distinguish himself the most will receive £25; the second Candidate £20; and the third £15. 2nd.—At the end of July in the first year, on all the subjects of the first year's Course of Study, one sum of £30, another of £25, and a third of £10 10s. (presented by one of the Governors), will be given according to proficiency. 3rd.—At the end of July in the second year, on the subjects which form the Course of Study up to that time, £35 and £30. 4th.—At the end of July in the third year, on all the subjects of the Curriculum, £40 and £35.

Special Examination.—Two Gold Medals are given annually by the Treasurer to Students at the end of their third year: one for Clinical Medicine, and the other for Clinical Surgery.

The offices of House-Surgeon, Clinical Clerk, Dresser, etc., are filled by pupils who are appointed by the Treasurer on the recommendation of the Medical Examining Council.

For further information apply to Mr. Stocker, Apothecary to the Hospital.

KING'S COLLEGE.

The fees may be paid either in one sum on Matriculation or in two equal sums; the one at the commencement of the first Winter or Summer Session, the other after the first Christmas vacation, not later than January 21, unless special arrangements are made at the time of entrance. Students are, however, recommended to add £2 2s. for a second Course of Chemistry, as well as the fee for attendance on the Medical Tutor's Class for one year, viz., £3 3s. All resident Students are required to attend the Tutor during their first year.

Resident Medical Officers, Clinical Clerks, and Dressers are chosen by examination from Matriculated Students who are Pupils of the Hospital.

Scholarships.—Warneford Scholarships: The sum of £200 is set apart annually for Scholarships in the Medical Department, viz.:—"For the encouragement of the previous education of Medical Students," two Scholarships of £25 per annum for three years; "For the encouragement of resident Medical Students," one Scholarship of £25 per annum for two years. College Scholarships: The following are given every year to Matriculated Students of this department:—1. One of £40 for two years, open to Students of the third and fourth year; 2. One of £30 for one year, open to Students of the second year; 3. Three of £20 for one year, open to Students of the first year. Daniell Scholarship: £20 tenable for two years is open to every Student of the College who has worked in the laboratory for at least six months. Divinity Scholarship, £30, open to Matriculated Medical Students.

Prizes.—Leathes' Prizes: Bible and Prayer-book to two Matriculated Medical Students. Warneford Prizes: £40 is expended in the purchase of Medals and Books, as Prizes to two Matriculated Medical Students. Class Prizes are awarded annually for proficiency; these consist of Books of the value of £3. Two Medical Clinical Prizes, one of £3 for the Winter Session, and the other of £2 for the Summer Session; and two Surgical Clinical Prizes of the same value are given for attendance at the Hospital. Todd Medical Clinical Prize: This prize was founded in memory of the late Dr. Todd. It consists of a Bronze Medal and Books to the value of £4 4s.

Residence of Students.—A limited number may reside within the College.

For further information apply to Dr. Harley, Sub-Dean of the Medical department.

THE LONDON HOSPITAL.

The entry fee to Lectures and Hospital Practice is payable in two instalments of £44 2s. each at the commencement of the two first Winter Sessions.

Prizes and Appointments.—Two Gold Medals are annually awarded to Students who shall have most distinguished themselves in the performance of their duties at the Hospital. A Resident Medical Officer, who resides and boards in the Hospital, and receives £75, is appointed for twelve months by the Committee of the Hospital. The Resident Medical Officer is eligible for re-election for the further period of twelve months, and then receives £100. A Medical and Surgical Registrar is appointed by the Committee of the Hospital, and receives £25 a-year. Two House-Surgeons, a Resident Accoucheur, an Assistant Medical Officer, two Surgical Dressing Pupils, four additional Dressers (for out-patients), an Assistant Dentist, and Post-mortem Clerks are selected from among the Students according to merit.

Further information may be obtained from Mr. Adams, Dr. Parker, or Mr. Hutchinson, or on application at the College.

ST. MARY'S HOSPITAL.

The entrance fees may be paid in instalments by arrangement with the Dean of the School.

Resident and Non-Resident Medical Officers, Clinical Clerks, and Dressers.—All these Appointments are open to the Pupils without additional fee, and are held in succession, so as to secure a complete system of Clinical training. Five of these Appointments exceed in value an equal number of Scholarships of £50 each. All General Students are required to perform the duties of Clinical Clerks and Dressers for a period of six months during the last two years of their curriculum.

Prizes.—Examinations for Prizes are held at the termination of each Session, the Classes being grouped in accordance with the curriculum laid down for Students of the First, Second, and Third Year. The average value of each of these Prizes is £5 5s. A Scholarship in Anatomy, of the annual value of £25 (the holder of which will be styled Assistant-Demonstrator, and assist in the teaching of Practical Anatomy) will be awarded to the best qualified Student. A Prize of £20 for Students for the First Year is awarded at the end of the Winter Session. A Prize of the value of £4 4s. will be given to the Student who shall make the best Anatomical Preparation, such Preparation to become the property of the School. Two Prosectors are appointed annually, who each receive a Certificate and £5 for their services in the Dissecting-room.

Further information may be obtained from Mr. Ernest Hart, Dean of the School.

THE MIDDLESEX HOSPITAL.

The entrance fee to Lectures and Hospital Practice may be paid by instalments of £35 at the beginning of the First Session, £35 at the beginning of the Second Session, and £18 4s. at the beginning of the Third Session. For every additional Session, £10. Admission to the Library is included in this fee.

Clinical Clerks and Dressers.—General Students have the privilege of performing the duties of Clinical Clerks and Dressers, according to arrangements which the Clinical Directors may from time to time consider expedient. The Clinical Clerks and Dressers are appointed by competitive examination for a period of six months, dating from May 1 and November 1.

Resident Medical Appointments.—Three Resident Appointments—viz., one Obstetric Assistantship and two House Surgeoncies are given to Students who have complied with the established Regulations. The selection is made after competitive examination of the Candidates. The officers thus appointed reside and board in the Hospital free of expense. The House-Surgeons pay a fee of £21.

Prizes.—To those Students who have most distinguished themselves in all the subjects of study the following Prizes will be awarded:—First Winter Session.—A Prize of the value of £6 6s.; a Prize of the value of £4 4s. First Summer Session.—A Prize of the value of £3 3s.; a Prize of the value of £2 2s. Second Winter Session.—A Prize of the value of £6 6s.; a Prize of the value of £4 4s. Second Summer Session.—A Prize of the value of £3 3s.; a Prize of the value of £2 2s. Clayton Prize.—An Annual Prize of the value of £3 3s., given by Oscar Clayton, Esq., is awarded for proficiency in Comparative Anatomy. Third Winter Session.—A Prize of the value of £6 6s.; a Prize of the value of £4 4s. For Reports in Clinical Medicine a Prize of the value of £6 6s.; a Prize of the value of £4 4s. for Reports in Clinical Surgery. The Governor's Prize of £21 will be awarded to the Student who, having distinguished himself generally by conduct and acquirements in the School, shall present the best joint Clinical Reports in Medicine and Surgery.

For further information apply to Mr. Watts, the Resident Apothecary.

ST. THOMAS'S HOSPITAL.

The admission fee to Hospital Practice and all the Lectures is £40 for the first year, a similar sum for the second, and £10 for each succeeding year.

Prizes and Appointments.—To the three most distinguished Pupils for general proficiency in each year the following Prizes are awarded:—First Year's Students.—The William Tite Scholarship (the interest of £1000 Consols, tenable for three years), a College Prize of £30; 2nd. A College Prize of £20; 3rd. Ditto of £10. Second Year's Students.—1st. A College Prize of £30; 2nd. Ditto of £20; 3rd. Ditto of £10. Clinical Clerks and Dressers are selected according to merit from among Second Year's Students. The Dressers are provided with Rooms and Commons during their period of attendance in the Hospital free of expense. Third Year's Students.—1st. A College Prize of £30; 2nd. Ditto of £20; 3rd. Ditto of £10. Fourth Year's Students.—1st. For Practical Medicine and Pathology, a College Prize of £20; 2nd. For Practical Surgery and Pathology, a College Prize of £20. The Cheselden Medal, founded by George Vaughan, Esq., is awarded in respect of a Special Examination in Surgery and Surgical Anatomy. The Treasurer's Gold Medal is given annually for general proficiency and good conduct. The Grainger Testimonial Prize, of the value of £20, will be awarded biennially to Third or Fourth Years' Students for the best Physiological Essay. The Smith Prize of £5 for the best Essay on "Neuralgia."

The House Surgeons and Resident Accoucheur are chosen from gentlemen who have obtained their Professional Diplomas. All are provided with Rooms and Commons. The two offices of Medical Registrar and Surgical Registrar are from time to time filled from among gentlemen who have completed their studies in the School. Each Registrar, on completing his Annual Report to the satisfaction of the Physicians and Surgeons, receives a gratuity of £40. If the two offices are held by one person, he then receives, on completing his reports as above, a gratuity of £80.

For further information apply to Mr. R. G. Whitfield, Medical Secretary.

UNIVERSITY COLLEGE, LONDON.

The fee for Lectures and Hospital Practice may be paid at once or distributed in payment over three years, as follows:—First Winter Term, £38 15s.; First Summer Term, £16 5s. Second Winter Term, £24 10s.; Second Summer Term, £9 3s. Third Summer Term, £6.

Scholarships and Exhibitions.—Atkinson Morley Surgical Scholarships: An Annual Scholarship, £45, awarded to the Student who, upon examination, shall be found to possess the greatest proficiency in the Theory and Practice of Surgery, tenable for three years. Longridge Exhibition: In every Session a Prize of £40 is awarded for general proficiency in Medicine and Surgery. Filliter Exhibition: A Prize of £30, awarded annually, founded "for the encouragement of proficiency in Pathological Anatomy."

Entrance Exhibitions.—Three Entrance Exhibitions of the respective value of £30, £20, and £10 per annum, tenable for two years, will be awarded upon examination to gentlemen who are about to commence their first winter's attendance in a Medical School. The examination, by written papers, will be in Classics, Elementary Mathematics, Natural Philosophy, and in either French or German at the option of the Candidate, and will take place at the College on Tuesday and Wednesday, October 4 and 5. Notice of intention to compete, addressed to the Secretary, must be left before 2 o'clock on or before Saturday, October 1, at the Office of the College, where the Regulations may be obtained.

Medals and Prizes.—Dr. Fellowes's Clinical Medals, one Gold and one Silver, awarded at the end of each term to Pupils who shall have most distinguished themselves by reports and observations on the Medical cases in the Hospital. The Liston Gold Medal will be awarded at the end of the Session to the Pupils who shall have most distinguished themselves by reports and observations on the Surgical cases in the Hospital.

Class Medals and Prizes.—Besides the above, Gold and Silver Medals are awarded in each class.

Offices in the Hospital tenable by Students.—Physicians' Assistants, House-Surgeons, Midwifery Assistants, Physicians' Clerks, Surgeons' Dressers, and Ophthalmic Surgeons' Assistants are selected from the Pupils, without additional fees. The Physicians' Assistants, Obstetric Assistant, and House-Surgeons reside in the Hospital, paying for their board.

Further information may be obtained from the Dean, Professor Harley.

WESTMINSTER HOSPITAL.

The Entry Fee to Lectures and Hospital Practice may be paid in three instalments,—£36 15s. at the commencement of the first year, £31 10s. at the commencement of the second, and £10 10s. at the commencement of the third year.

Prize Appointments and Prizes.—The offices of House-Physician and House-Surgeon are open to competition amongst Gentlemen who have been educated at the Hospital, and who are qualified to practise under the Medical Registration Act. Assistant House-Surgeon: Is appointed from among the Senior Students by Examination. Clinical Clerks and Dressers: These appointments are conferred upon the most diligent students.

Prizes.—A Prize of Books or Instruments for each of the Winter and Summer Courses. A Clinical Medicine Prize of the value of 5 guineas. A Clinical Surgery prize of similar value. A special Prize will be given for Clinical Midwifery by the Westminster Maternity Charity. Chadwick Prize for General Proficiency. A sum of 20 guineas will be awarded, in one or more Prizes, to the most meritorious Student or Students who are attending Lectures and Hospital Practice for the second or third year.

Further information may be obtained from the Dean, Mr. Power

BRITISH LYING-IN HOSPITAL, ENDELL-STREET, LONG ACRE.
Founded 1748.

Medical Officers: B. Brookes, Esq., Consulting Surgeon; Dr. Grailly Hewitt, Dr. G. C. P. Murray, and Dr. Eastlake. About 200 women are delivered annually in this Hospital, and between 500 and 600 at their own houses. Resident male pupils are admitted for periods of two, four, or six months on paying a fee of seven, ten, or twelve guineas, exclusive of board and lodging. Non-resident Pupils are now afforded opportunities for attending the Out-door Practice of the Hospital, and will be supplied with cases on payment of a moderate fee. A systematic course of instruction is also given to Midwives and Monthly Nurses by, and under the direction of, the Medical Officers.

ENGLISH PROVINCIAL SCHOOLS AND HOSPITALS.

BRISTOL MEDICAL SCHOOL, SESSION 1863-64.

The Winter Session will commence on Monday, October 3, 1864. Medicine, Dr. Brittan. Surgery, Mr. Coe and Mr. Leonard. General Anatomy and Physiology, Drs. Martyn and Fripp. Descriptive and Surgical Anatomy, Mr. Clark and Mr. Lansdown. Superintendence of Dissections, Messrs. Atchley and James. Chemistry, Mr. Herapath, sen.

The Summer Session will commence on May 2, 1864. Midwifery, Dr. Swayne. Forensic Medicine, Dr. Marshall and Mr. Herapath, sen, Materia Medica, Dr. Burder. Botany, Mr. Clark. Practical Chemistry, Mr. Herapath, sen. Fee for perpetual attendance on all the above Courses, excepting Practical Chemistry, £47 5s.

Competitive examinations are held amongst students of the first, second, and third years respectively; and prizes are annually awarded, amounting in aggregate value to about £40.

Certificates of attendance upon the Lectures of this School are recognised by all the Examining Boards.

Medical and Surgical Hospital Practice and Clinical Lectures are attended at the Royal Infirmary or at the General Hospital, at which institutions various Prizes and Scholarships are annually offered for competition amongst the Students.

Further information may be obtained on application to the Honorary Secretary, Dr. G. F. Burder

BRISTOL ROYAL INFIRMARY.

The Infirmary contains 242 beds.

Fees	For One Year.	For Two Years. (At One Payment.)	For Three Years. (At One Payment.)
Surgeon's Pupil	£12 12s.	£21	£26 5s.
Dresser (Extra Fee)	£12 12s.	£21	£26 5s.

Physician's Pupil, for 6 Mths., £8; 1 Yr., £15; 18 Mths., £20; Perpetual, £25.

BRISTOL GENERAL HOSPITAL.

The Hospital contains 130 beds.

Fees	For Six Months.	One Year.	Perpetual.
Medical or Surgical Practice	£6	£10	£20

Extra Fee for Dresser or Clinical Clerk, £5 5s.—Library Fee, £1 1s. pr. an.

HULL AND EAST RIDING SCHOOL OF MEDICINE AND ANATOMY, KINGSTON-SQUARE.—SESSION 1864-65.

The Winter Session will commence on Monday, October 3, 1864. Anatomy, Physiology, and Pathology, Mr. Craven. Anatomy and Anatomical Demonstrations, Dr. King. Principles and Practice of Medicine, Dr. Daly. Principles and Practice of Surgery, Mr. Gibson. Chemistry, Mr. Walton. Summer Session commencing May 1, 1865. Midwifery, Mr. H. Gibson. Materia Medica, Messrs. Arden and Holden. Forensic Medicine, Dr. Munroe, F.L.S. Botany, Mr. Niven. Perpetual to all the Lectures, except Chemistry, £42. Perpetual fee for attendance on the Medical and Surgical Practice, £21. Clinical Lectures, £1 1s. Application for Tickets may be made to Mr. R. M. Craven, 14, Albion-street, Hull.

LEEDS SCHOOL OF MEDICINE.

The Winter Session will commence on Monday, October 3, 1864. Physiology, General Anatomy, and Pathology, by Mr. Ikin and Mr. Wheelhouse. Anatomy, by Mr. Teale, jun., Mr. Atkinson, and Mr. Seaton. Surgery, by Mr. Nunneley and Mr. Hey. Chemistry, by Mr. Scattergood and Mr. Reynolds. Principles and Practice of Physic, by Dr. Chadwick, Dr. Heaton, and Dr. Allbutt. Summer Session, 1865, commencing May 1.—Materia Medica and Therapeutics, by Dr. Bishop. Midwifery, by Mr. Smith and Mr. Price. Forensic Medicine and Toxicology, by Dr. Smith. Botany, by Mr. Hall. Practical Chemistry, by Mr. Scattergood. Operative Surgery, by Mr. Nunneley and Mr. Hey. Fee to all the Courses required by the Examining Bodies, except Practical Chemistry, £42. Clinical Lectures will be given at the General Infirmary by Dr. Chadwick, Dr. Heaton, and Dr. Allbutt; and by Mr. Samuel Hey, Mr. Nunneley, Mr. C. G. Wheelhouse, and Mr. T. P. Teale, jun.

Clinical Clerkships and Dresserships.—Six Clinical Clerkships and eight Dresserships are awarded by the Physicians and Surgeons to the General Infirmary.

The terms of attendance on the Medical and Surgical Practice of the Infirmary, and on the Practice of the House of Recovery, the Dispensary, and the Eye and Ear Infirmary, may be known on application to the officers of those institutions.

LIVERPOOL NORTHERN HOSPITAL.

Physicians, Dr. Collingwood and Dr. Waters. Surgeons, Mr. Chalmers, Mr. Hakes, and Mr. Manifold. Junior Surgeon, Mr. Lowndes.

Fees for Hospital Practice.—Perpetual, 30 guineas; one year, 12 guineas; six months, 9 guineas.

LIVERPOOL ROYAL INFIRMARY AND SCHOOL OF MEDICINE.

The Session of 1864-65 will commence on Saturday, October 1.

Hospital Practice, Royal Infirmary.—Physicians, Dr. Vose, Dr. Turnbull Dr. Inman. Surgeons, Mr. Stubbs, Mr. Long, Mr. Bickersteth. House-Surgeons, Dr. Rawdon and Mr. Nash. Dental Surgeon, Mr. Snape.

Terms for Hospital Attendance and Clinical Lectures:—

	Medical Practice.	Surgical Practice.
For Six Months	£5 5 0	£5 5 0
One Year	9 9 0	9 9 0
The Second Year	6 6 0	6 6 0
The Third Year	5 5 0	5 5 0
Perpetual	18 7 6	18 7 6

Lectures, Winter Session.—Surgery, Messrs. Long and Bickersteth. Principles and Practice of Medicine, Dr. Cameron. Anatomy and Physiology, Mr. Fletcher and Dr. Waters. Chemistry and Pharmacy, Dr. Edwards. Demonstrator of Anatomy, Mr. Harrison.

Lectures, Summer Session.—Midwifery, Mr. Batty. Diseases of Children, Mr. Grimsdale. Materia Medica and Therapeutics, Dr. Nevins. Medical Jurisprudence, Drs. Whittle and Edwards. Botany, Dr. Collingwood. Ophthalmic Medicine and Surgery, Dr. Taylor. Practical Chemistry, Dr.

Edwards. Pathological Anatomy, Dr. Gee. Dental Surgery, Mr. Snape. Dental Anatomy and Physiology, Comparative and Human, Mr. Fletcher and Dr. Waters. Metallurgy, Dr. Edwards.

Exhibitions.—Royal Infirmary Medical Scholarship—value £42—consisting of Gold Medal, value £10 10s., and Six Months' Free Board and Residence, with Clerkship and Dressership in the Royal Infirmary.—Four Exhibitions—value £31 10s. each—consisting of Six Months' Free Board and Residence in the Royal Infirmary.

The Fee for all the Lectures required by the Colleges of Surgeons and Physicians and the Apothecaries' Hall is £45, payable in advance. Registrar, Mr. Fletcher, 13, Mornington-terrace.

THE MANCHESTER ROYAL SCHOOL OF MEDICINE AND SURGERY, FAULKNER-STREET.

The Winter Session will commence on Monday, October 3, when the Introductory Address will be delivered by Mr. Stone, at 12 o'clock.

Winter Session, 1864-5.—Physiology, by Mr. Turner and Mr. Smith. Descriptive Anatomy, by Mr. Lund. Practical Anatomy, by Mr. A. Godson, M.B. Chemistry, by Mr. Stone. Principles and Practice of Medicine, by Dr. Roberts. Principles, Practice, and Operations of Surgery, by Mr. Southam. Anatomy, Physiology, and Pathology of the Eye, by Mr. Hunt and Mr. Lund.

Summer Session—Midwifery and Diseases of Women and Children, by Mr. Greaves. General Pathology and Morbid Anatomy, by Dr. Morgan. Materia Medica, Medical Botany, and Therapeutics, by Mr. Somers. Forensic Medicine, by Mr. Harrison. Botany, by Mr. Grindon. Practical Chemistry, by Mr. Stone.

Perpetual Fee to the whole of the Lectures required to qualify for Examination at the London University, the Royal College of Physicians, and Surgeons, and the Apothecaries' Company, £42.

Hospital Practice at the Royal Infirmary, where Clinical Lectures are regularly delivered by the Physicians and Surgeons of the Institution.

Scholarships.—In addition to prizes for general proficiency, Three Scholarships for perpetual students will be offered for competition—one of £20 for third years' students; one of £15 for second years' students; one of £10 for first years' students.

Further particulars may be obtained from Mr. Southam, 21, Lever-street.

COLLEGE OF MEDICINE, NEWCASTLE-UPON-TYNE.

Winter Session, commencing October 1, 1864.—Anatomy and Physiology, Dr. Murray. Anatomy, Dr. Nesham, Mr. Watson, and Mr. Armstrong. Medicine, Dr. Charlton, and Dr. Embleton. Surgery, Dr. Heath, Chemistry, Dr. Richardson, Mr. Browell, and Mr. Marreco.

Summer Session.—Midwifery, Drs. Lawson and Gibson. Botany, Mr. Thornhill and Dr. Arnison. Medical Jurisprudence, Dr. Donkin. Materia Medica, Dr. Humble. Practical Chemistry, Dr. Richardson, Mr. Browell, and Mr. Marreco, Operative Surgery, Dr. Heath. Military Surgeon, Sir John Fife. Pathological Anatomy, Dr. Gibb and Dr. Philipson.

Fees for Lectures.—Perpetual Fee for all the Lectures qualifying for the Licence in Medicine, and the Mastership in Surgery, of the University of Durham, the Licence and Membership of the Royal College of Physicians, the Diploma of the College of Surgeons, and the Licence of the Apothecaries' Society, and payable on entering to the first Winter Session, £46 4s.

Hospital Practice.—This can be attended at the Newcastle Infirmary.

Fees for Hospital Practice.—Twelve Months, £7 7s.; Six Months, £5 5s.; Three Months, £4 4s.; Perpetual Fee, £17 17s.; or, if paid by instalments, First Year, £7 7s.; Second Year, £6 6s.; Third Year, £5 5s. These fees also are payable in advance.

Medical Scholarships in the University of Durham.—Four Scholarships of £25 a-year each, tenable each for four years. Two non-resident Clinical Clerkships and four Dresserships are conferred for merit.

College Medals.—At the end of each Session a Silver Medal will be awarded in each of the required classes.

QUEEN'S COLLEGE, BIRMINGHAM.

Department of Medicine.—Descriptive Anatomy, Professor Foster. Practical Anatomy, Professor Lloyd. Botany, Professor Dr. Hinds. Chemistry, Professor Alfred Anderson. Forensic Medicine, Professor John Postgate. Materia Medica, Professor Dr. Divers. Medicine and Pathology, Professor (*ad interim*) Dr. Wade. Midwifery, Professors John Clay and Dr. Suckling. Physiology, Professor Dr. Norris. Surgery, Professor Sands Cox. Resident Medical Tutor and Demonstrator, James Hinds. Clinical Medicine, Queen's Hospital, Professors Drs. Wade, Fleming, and Foster. Clinical Surgery, Queen's Hospital, Professors Sands Cox, West, Gamgee, and Jordan. Clinical Midwifery, Professor Berry. Practical Midwifery, Queen's Hospital, Dr. Suckling, Mr. John Clay, and Dr. Erle. Ophthalmic Surgery, Queen's Hospital, Benjamin Hunt. Dental Surgery, Queen's Hospital, Samuel A. Parker. Morbid Anatomy and Pathology, by the Physicians and Surgeons of the Queen's Hospital.

Senior Medical Department.—Single Course: Surgical and Descriptive Anatomy, £4 4s.; General Anatomy and Physiology, £4 4s.; Anatomical Demonstrations, £4 4s.; Chemistry, £4 4s.; Practical Chemistry, £3 3s.; Materia Medica, £4 4s.; Botany, £4 4s.; Medicine, £4 4s.; Surgery, £4 4s.; Medical Jurisprudence, £4 4s.; Midwifery, £4 4s.; Comparative Anatomy, £3 3s.

Composition Fees for Three Years' Course.—The Composition Fee to be paid for the Courses of Lectures required by the College of Physicians, College of Surgeons, and the Society of Apothecaries is Forty-five Guineas. The payment may be made at once, or in two equal sums. The Students will have the services of the Resident Medical Tutor in the dissecting-room, and admission to the Library on the payment of an entrance fee of £1 1s., without any additional charge.

Junior Medical Department.—Classics, £5 5s.; Mathematics, £5 5s.; Chemistry, Botany, and Anatomy, £4 4s.; French, £4 4s.; German, £4 4s.; Drawing, £4 4s.

The College expenses, including Commons, Chamber Rent, and Servants' Wages, but exclusive of Lecture Fees, do not exceed £50 for the three terms. The payments are to be made by three instalments, viz., £18 on October 1, £18 on January 1, and £14 on May 1. An extra charge will be made for additional rooms.

The Queen's Hospital.—The Hospital contains 160 beds, which are constantly filled.

Scale of Fees for Medical, Surgical, Midwifery, Ophthalmic, and Dental Practice and to the Clinical Lectures at the Queen's Hospital.—Attendance for three years, or the period required by the College of Surgeons, on the Practice and Clinical Lectures (the payments may be made in two equal sums), £21; one year's attendance, ditto, ditto, £10 10s.; six months' attendance, ditto, ditto, £6 6s. The respective offices of Physicians' Clerks, and Surgeons' Dressers, Assistant Prosector of Morbid Anatomy, Obstetric Clerks, the Ophthalmic and Dental Assistants, are filled up by the Physicians and Surgeons from the Students for a period of one year after examination.

SYDENHAM COLLEGE MEDICAL SCHOOL, SUMMER-LANE, BIRMINGHAM (Opposite the General Hospital).

The Session 1864-65 will commence on Tuesday, October 4. Anatomy and Physiology, Dr. Jordan, M.D., and Mr. Bartleet, M.B. Practical Anatomy, Mr. F. Jordan; and Demonstration, Mr. Jones. Principles and Practice of Medicine, Dr. Russell. Principles and Practice of Surgery, Messrs. Baker and Bolton. Surgical Pathology, Mr. Pemberton. Dental Physiology and Surgery, Mr. Howkins. Chemistry, Dr. Hill. Summer Session.—Midwifery, Dr. Elkington and Mr. Bassett. Materia Medica and Therapeutics, Mr. Harrison, M.B. Practical Chemistry, Alfred Hill, M.D., F.C.S. Botany, Mr. Westcott. Forensic Medicine, Dr. Hill and Mr. Swain. Further particulars may be obtained on application to the Principal, Dr. Bell Fletcher, Waterloo-street.

SHEFFIELD MEDICAL INSTITUTION.

President: William Jackson, Esq., F.R.C.S.E. Session 1864-65.

Lectures.—Winter Session, commencing October 1, 1864.—Descriptive Anatomy, Mr. Skinner and Dr. Allanson. Physiology, Dr. Keeling. Practical Anatomy and Demonstrations, Messrs. H. Walker and Le Tall. Chemistry, Dr. Bingley. Medicine, Dr. Chas. Smith. Surgery, Messrs. Barber and W. F. Favell. Summer Session, commencing May 1, 1865.—Midwifery, Mr. Arden. Materia Medica, Mr. Kemp. Medical Jurisprudence, Dr. Griffiths. Dental Surgery, Mr. Merryweather. Botany, Messrs. Birks and Le Tall. Practical Chemistry, Dr. Bingley. The Fee for all the Lectures required by the College of Surgeons, the College of Physicians, and the Society of Apothecaries is £42. This, however, is exclusive of the Fee for Practical Chemistry, which must be subject to special arrangement with the Lecturer. Honorary Secretary, Mr. Barber, 5, Eyre-street, Sheffield. The Terms of Attendance on the Practice of the Sheffield General Infirmary:—Eighteen months' Medical, £15 15s.; three years' Surgical, £21. Attendance at the Sheffield Public Hospital and Dispensary may be known on application to the Officers of that Institution.

THE MEDICAL SCHOOLS OF SCOTLAND.

UNIVERSITY OF EDINBURGH.

Faculty of Medicine—Session 1864-65.

Anatomy, Demonstrations, &c., Prof. Goodsir, £8 8s. Chemistry, Prof. Playfair, £4 4s. Materia Medica, Prof. Christison, £4 4s. Institutes of Medicine, Prof. Bennett, £4 4s. Pathology and Pathological Anatomy, Prof. Henderson, £4 4s. Medicine, Prof. Laycock, £4 4s. Surgery, £4 4s. Midwifery, Prof. Simpson, £4 4s. Medical Jurisprudence, Prof. Maclagan, £4 4s. Natural History, Prof. Allman, £4 4s. Clinical Medicine, Drs. Bennett and Laycock, £3 3s. Clinical Surgery, Prof. Syme, £3 3s.

Summer Session.—Botany, Prof. Balfour, £4 4s. Medical Jurisprudence, Prof. Maclagan, £4 4s. Comparative Anatomy, Prof. Goodsir, £2 2s. Practical Chemistry, Prof. Playfair, £3 3s. Natural History, Prof. Allman, £4 4s. A Course of Lectures on Histology is delivered by Prof. Bennett, and one on Medical Psychology by Prof. Laycock.

Hospital Practice is attended at the Edinburgh Royal Infirmary.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.

Winter Session, 1864-65.—The following Courses of Lectures on Medical and Surgical Science, and also those delivered in the University, qualify for Examination for the Diplomas of the Royal Colleges of Physicians and Surgeons:—

Classes open on Wednesday, November 2.—Surgery, Mr. Spence. Surgery (4, High School-yards), Dr. P. H. Watson. Surgery (8, Infirmary-street), Mr. A. M. Edwards. Surgery (1, Surgeons'-square), Dr. Joseph Bell. Chemistry (School of Arts, Adam-square), Dr. Stevenson Macadam. Practical Chemistry and Analytical Chemistry, Dr. Stevenson Macadam (at Surgeons' Hall). Chemistry (4, High School-yards), Dr. A. C. Brown. Practical Chemistry and Analytical Chemistry, Dr. A. C. Brown (4, High School yards). Physiology, Dr. Sanders. Medical Jurisprudence (course commences on Monday, November 7), Dr. Littlejohn. Clinical Medicine (Royal Infirmary), Drs. Warburton Begbie, Sanders, J. Matthews Duncan, and Rutherford Haldane. Clinical Surgery (Royal Infirmary), Dr. Gillespie. Anatomy, Anatomical Demonstrations, and Practical Anatomy (will be commenced on October 1), Dr. P. H. Handyside. Practice of Physic, Dr. Rutherford Haldane. Practice of Physic (4, High School-yards), Dr. Warburton Begbie. General Pathology, Dr. Grainger Stewart.

Fees.—For the first of each of the above Courses, £3 5s.; for the second, £2 4s.; perpetual, £5 5s. To those who have already attended a First Course in Edinburgh the perpetual fee for that class is £2 4s. The fees for the following Courses are—Practical Chemistry and Practical Anatomy, £3 3s. Anatomical Demonstrations, £2 2s., when taken along with Practical Anatomy, £1 1s. Analytical Chemistry, £2 a month, £5 for three months, or £10 for the session of six months.

Practical Instruction.—Royal Infirmary, 12 noon; perpetual ticket, at one payment, £10; annual, £5 5s.; half-yearly, £3 3s.; quarterly, £1 11s. 6d.; separate payments for two years entitle the Student to a perpetual ticket.

During the *Summer Session*, 1865, the following Three Months' Courses will be delivered:—Midwifery, Dr. Keiller. Midwifery (4, High School-yards), Dr. J. Matthews Duncan. Medical Jurisprudence, Dr. Littlejohn. Materia Medica and Therapeutics, Dr. Scoresby-Jackson. Clinical Surgery, Dr. Gillespie. Clinical Medicine, Drs. Warburton Begbie, Sanders, J. Matthews Duncan, and Rutherford Haldane. Practical Chemistry and Analytical Chemistry, Dr. Stevenson Macadam (at Surgeons' Hall). Practical Chemistry and Analytical Chemistry, Dr. A. C. Brown (4, High School-yards). Practical Anatomy and Operative Surgery, Demonstrations (Regional and Microscopic), Dr. P. D. Handyside. Pathological Anatomy and Histology, Practical Pathological Histology (Royal Infirmary), Dr. Grainger Stewart. Histology, Dr. Sanders. History of Medicine, Dr. Warburton Begbie. Military Surgery, Operative Surgery, and Hygiene, Dr. P. H. Watson. Surgical Appliances, Mr. Edwards. Surgical Appliances and Operative Surgery, Dr. Joseph Bell. Vaccination, Dr. Husband. Diseases of the Eye, Dr. Argyll Robertson. Insanity, Dr. Skae.

For further information apply to Dr. Stevenson Macadam, Secretary to the Medical School.

UNIVERSITY OF ABERDEEN.

Faculty of Medicine – Session 1864-65.

Winter Session, commencing on the first Tuesday of November.—Anatomy, Professor Struthers, M.D., £3 3s. Anatomical Demonstrations and Practical Anatomy, Prof. Struthers and the Demonstrator, £2 2s. Chemistry, Prof. Brazier, £3 3s. Institutes of Medicine, Prof. Ogilvie, £3 3s. Surgery, Prof. Pirrie, £3 3s. Practice of Medicine, Prof. Macrobin, M.D., £3 3s. Midwifery, and Diseases of Women and Children, Prof. Dyce, £3 3s. Zoology, with Comparative Anatomy, Prof. Nichol, £3 3s. Medical Logic and Medical Jurisprudence, Prof. Ogston, £3 3s.

Summer Session, commencing on the first Monday of May.—Botany, Prof. Dickie, £3 3s. Materia Medica (100 lectures), Prof. Harvey, £3 3s. Anatomical Demonstrations and Practical Anatomy, Prof. Struthers and the Demonstrator, £2 2s. Practical Chemistry, Prof. Brazier, £3 3s.

Matriculation Fee for the Winter and Summer Sessions, £1. For the Summer Session alone, 10s.

Royal Infirmary—Daily.—Perpetual Fee to Hospital Practice, £6; or First Year, £3 10s.; Second Year, £3. Clinical Medicine and Clinical Surgery—each, First Course, £3 3s.; Second Course, £2 2s.

UNIVERSITY OF GLASGOW.

Faculty of Medicine.—The Classes open for the Winter Session on Tuesday, November 1st, 1864.

Chemistry, Practical Chemistry, and Chemical Laboratory, Dr. Anderson, £3 3s. Natural History, Dr. Rogers, £3 3s. Practice of Physic, Dr. Gairdner, £3 3s. Anatomy, Anatomical Demonstrations, and Practical Anatomy, Dr. Allen Thompson and Demonstrator, £8 8s. Materia Medica, Dr. J. A. Easton, £3 3s. Forensic Medicine, Dr. Rainy, £3 3s. Surgery, Mr. Lister, £3 3s. Midwifery, Dr. Pagan, £3 3s. Institutes of Medicine, Dr. A. Buchanan, £3 3s. Clinical Medicine and Clinical Surgery, Physicians and Surgeons of Royal Infirmary.

GLASGOW ROYAL INFIRMARY.

Physicians, Dr. Frazer, Dr. Orr, Dr. Gairdner, and Dr. Leishman. Surgeons, Dr. Lyon, Dr. Morton, Dr. G. Buchanan, and Mr. Lister. Fever Physician, Dr. Steven.

Besides the Clinical instruction given at the bedside, Lectures on the Cases are given four times weekly, at Nine a.m., during the Winter and Summer Sessions. Clinical Medical Lectures on Mondays and Thursdays. Clinical Surgical Lectures on Tuesdays and Fridays.

Fees, admitting to the Medical and Surgical Practice and the Clinical Lectures—Perpetual, £10 10s.; or, for one year, £5 5s.; for second, £5 5s.; for third, £1 1s.; and afterwards free.

ANDERSON'S UNIVERSITY, GEORGE-STREET, GLASGOW.

Winter Session 1864-65.

Chemistry, Practical Chemistry, and Laboratory, Dr. Penny. Surgery, Dr. G. H. B. Macleod. Institutes of Medicine, Physiology, Dr. E. Watson. Anatomy, Anatomical Demonstrations, Practical Anatomy, or Dissection, Dr. G. Buchanan. Practice of Medicine, Dr. Cowan. Materia Medica, Dr. Morton. Hospital Practice in Royal Infirmary. Clinical Lectures in Royal Infirmary.

Summer Session.

Botany, Mr. Kennedy. Midwifery, Dr. Paterson. Medical Jurisprudence, Dr. Leishman. Surgical Anatomy, Practical Anatomy, Osteology for Beginners, Dr. George Buchanan. Practical Medical Chemistry, Dr. Penny. Operative Surgery, Dr. G. H. B. Macleod.

Class Fees.—For each of the above Courses of Lectures, first Session, £2 2s.; second Session, £1 1s.; afterwards free.

Anatomy Class Fees.—For both Courses (Lectures and Demonstrations), first Session, £4 4s.; second Session, £4 4s.; afterwards free.

Practical Anatomy.—The Dissecting-room is free for two Sessions to those who attend both Courses of Anatomy. After the second year the fee for Practical Anatomy is £1 1s. per Session.

The Fees for all the Lectures and Hospital Practice required of Candidates for the Diplomas of Physician and Surgeon, amount to £40.

THE MEDICAL SCHOOLS OF IRELAND.

SCHOOL OF MEDICINE AND SURGERY, TRINITY COLLEGE, DUBLIN.

The school was established by Act of Parliament 40th George III., and is under the joint government of the Board of Trinity College and the King and Queen's College of Physicians.

Winter Session.—Institutes of Medicine and Pathology, Prof. Law. Materia Medica and Pharmacy, Prof. Osborne. Surgery, Prof. Smith. Anatomy and Physiology, Prof. McDowel. Practical Anatomy, Drs. Barton and Bennett. Chemistry, Prof. Apjohn. Practice of Medicine, Prof. Banks. Midwifery and the Diseases of Women and Children, Prof. Churchill.

Summer Session.—Botany, Dr. Harvey. Medical Jurisprudence, Dr. Brady. Practical Chemistry, Dr. Apjohn. Hospital Practice and Clinical Lectures at Sir Patrick Dunn's Hospital.

The Fee for each course of Lectures is £3 3s.; for each course of Clinical Lectures, £3 3s.; for attendance on the practice of Sir P. Dunn's Hospital to Students in Arts T.C.D. of two years' standing, £3 3s.; to other Students, £10 10s.

ROYAL COLLEGE OF SURGEONS IN IRELAND—SCHOOL OF SURGERY.—Session 1864-65.

The public Lectures and the usual Winter Course will commence on Monday, November 2. Anatomy and Physiology, Dr. Jacob. Descriptive Anatomy, Dr. Bevan and Mr. Morgan. Surgery, Mr. Hargrave and Dr. J. S. Hughes. Practice of Medicine, Dr. Benson. Chemistry, Dr. Barker. Materia Medica, Mr. Macnamara. Midwifery, Dr. Sawyer. Medical Jurisprudence, Dr. Geoghegan Practical Chemistry, Dr. Barker. Comparative Anatomy, Dr. Jacob. Botany, Dr. Mitchell. Hygiene, Dr. Mapother. Dissections under the direction of the Professors of Anatomy and the Demonstrators, Dr. Croly and Messrs. Stoney and McAllister.

The Summer Session commences in May and terminates in August, including Materia Medica, Medical Jurisprudence, Botany, Practical Chemistry and Hygiene.

The Fee for each of the above Courses is £3 3s., except Comparative Anatomy, which is free. Practical instruction in Operative Surgery is given by the Professors of Surgery, separate from the Surgical Lectures, Fee £5 5s.

For further information application to be made to the Registrar, Mr. John Brennen, at the College.

DR. STEEVEN'S HOSPITAL, DUBLIN,

Contains 250 beds, with distinct wards for Fever, Syphilis, Diseases of the Eye, and Diseases of Females; there is also in connexion with the Hospital a Maternity Department, and an extensive Dispensary for Out-patients. Systematic Courses of Lectures are delivered during the Winter and Summer Sessions on all the subjects required by the Colleges, Halls, and the Public Service. These Lectures are given in a Medical School within the walls of the Hospital. Students enjoy the advantages of a Reading Room, Museum, and Lending Library. There is accommodation in the Hospital for two Medical and six Surgical Resident Pupils as Dressers. Fee £21, including Hospital Certificate. The Sessional Courses of Lectures will commence on the first Monday in November, Fees, each Course—Hospital, £7 7s.; Lectures, £3 3s. Perpetual to both Hospital and School 75 guineas, payable in two instalments.

Further particulars on application to Dr. Tyner, Resident Surgeon, at the Hospital; or to E. Hamilton, M.D., Secretary, 120, Stephen's-green.

CARMICHAEL SCHOOL (FORMERLY RICHMOND HOSPITAL SCHOOL) OF ANATOMY, MEDICINE, AND SURGERY, NORTH BRUNSWICK-STREET, DUBLIN.

Anatomy and Physiology, Mr. Curran. Surgery and Operative Surgery, Dr. R. McDonnell. Theory and Practice of Medicine, ———. Midwifery, Dr. Jennings. Materia Medica and Pharmacy, Dr. Frazer. Chemistry, Dr. Davy. Descriptive and Practical Anatomy, Dr. Cruise and Dr. O'Grady. Medical Jurisprudence, Dr. O'Reilly. Botany, Dr. Campbell. The Fee for each of the above Courses is £3 3s.

For further information apply to Dr. McDonnell, 14, Lower Pembroke-street; Mr. H. Curran, 70, Eccles-street; or, Dr. F. Cruise, 37, Westland-row.

CATHOLIC UNIVERSITY, DUBLIN.

School of Anatomy, Medicine, and Surgery, Cecilia-street, Dame-street.

Winter Session.—Anatomy and Physiology, Drs. Hayden and Cryan. Anatomical Demonstrations, the Professors of Anatomy and Physiology. Chemistry, Dr. W. K. Sullivan. Theory and Practice of Surgery, Mr. A. Ellis. Theory and Practice of Medicine, Dr. R. D. Lyons. Theory and Practice of Midwifery, Dr. J. A. Byrne.

Summer Session.—Practical Anatomy, Dr. W. K. Sullivan. Materia Medica, Dr. F. B. Quinlan. Medical Jurisprudence, Dr. S. M. MacSwiney. Pathology, Dr. R. D. Lyons. Botany. Natural Philosophy, Mr. H. Hennessy. Logic, Dr. D. B. Dunne.

The Fee for each of the above courses is £3 3s.

For further information apply to the Hon. Sec., Dr. Hayden, 30, Harcourt-street.

LEDWICH SCHOOL OF ANATOMY, MEDICINE, AND SURGERY, PETER-STREET, DUBLIN.

Founded 1810.

Anatomy, Physiology, and Pathology, etc, Mr E. Ledwich and Dr. T. P. Mason. Theory and Practice of Surgery, Messrs. Wharton and Hughes. Surgical and Descriptive Anatomy, Demonstrations and Dissections, Messrs. T. P. Mason, E. Ledwich, Booth, Colby, Bright, and O. Leary. Theory and Practice of Medicine, Dr. W. Moore. Midwifery and Diseases of Women and Children, Dr. J. Ringland. Materia Medica and Therapeutics, Dr. R. Minchin. Forensic Medicine and Hygiene, Dr. R. Travers. Theory of Chemistry, Practical Chemistry, and Natural Philosophy, Dr. Cameron. Botany, Dr. C. Asken.

A Course of Operations to be performed by the Student, under the superintendence of the Lecturers (subjects, etc., included), £5 5s.

Fee for each Course of Lectures, £3 3s.

Sec.—Mr. E. Ledwich, 7, Harcourt-street, Dublin.

THE QUEEN'S UNIVERSITY IN IRELAND—QUEEN'S COLLEGE, BELFAST, FACULTY OF MEDICINE.

The Lectures will commence on Tuesday, November 1. Anatomy and Physiology, Dr. P. Redfern. Chemistry, Dr. Thomas Andrews. Practice of Medicine, Dr. J. C. Ferguson. Practice of Surgery, Dr. A. Gordon. Materia Medica, Dr. J. S. Reid. Midwifery, Dr. W. Burden. Medical Jurisprudence, Dr. J. F. Hodges. Natural Philosophy, Dr. J. Stevelly. Zoology and Botany—Dr. Wyville Thomson. The Demonstrations in Anatomy are delivered by Dr. Burden. The Course of Botany will commence in March.

Fees. Anatomy and Physiology—First Course, £3; each subsequent Course, £2. Anatomical Demonstrations and Practical Anatomy—Each Course, £3. Practical Chemistry—£3. Other Medical Lectures—First Course, £2; each subsequent Course, £1.

Belfast General Hospital.—Fees for Clinical Instruction, including Hospital Fee—First year, £4 4s.; second year, £3 3s.; third year, £2 2s.; fourth year, £2 2s.; perpetual, £10 10s.; summer, each session, £1 11s. 6d.

QUEEN'S COLLEGE, CORK—FACULTY OF MEDICINE.

Session, 1864-65.

Anatomy, Physiology and Practical Anatomy, Dr. J. H. Corbett. Practice of Medicine, Dr. C. O'Connor. Practice of Surgery, Dr. W. Tanner. Materia Medica, Dr. P. O'Leary. Midwifery—Dr. J. R. Harvey. Natural Philosophy, Mr. John England. Chemistry and Practical Chemistry, Dr. J. Blyth. Zoology and Botany, Mr. J. R. Greene. Modern Languages, Mr. R. De Vericour. Logic, Mr. G. S. Read. Clinical Medicine and Clinical Surgery, at the North and South Infirmaries, by the Physicians and Surgeons of these Institutions. Clinical Midwifery at the Lying-in Hospital. The Medical Session will be opened on Monday, October 31, 1864, and the Lectures will commence on October 31.

For further information apply to Mr. Robert John Kenny, Registrar.

QUEEN'S COLLEGE, GALWAY.—FACULTY OF MEDICINE.

Anatomy and Physiology, and Practical Anatomy, Dr. Croker King. Practice of Medicine, Dr. N. Colahan. Practice of Surgery, Dr. J. V. Brown. Demonstrator, R. Reid, A.B. Materia Medica and Medical Jurisprudence, Mr. S. M'Coy. Midwifery and Diseases of Women and Children, Dr. R. Doherty. Chemistry, Dr. T. H. Rowney. Natural Philosophy, A. H. Curtis, A.M. Botany and Zoology, Dr. A. G. Melville. Logic and Mental Philosophy, Dr. T. W. Moffett. Demonstrator of Anatomy, Mr. R. Reid. The County Galway Infirmary, Town, and Union Hospitals are in the immediate vicinity of the Queen's College. They are visited every morning by Professors of the College, who deliver Clinical Lectures.

For further information apply to Dr. Croker King, Dean of Faculty.

ORIGINAL LECTURES.

CLINICAL LECTURE ON EXOPHTHALMOS, Etc. ("GRAVES' OR BASEDOW'S DISEASE,") AND ON SO-CALLED ANÆMIC PULSATIONS AND PALPITATIONS.

DELIVERED AT

The Royal Infirmary, Edinburgh,

By THOMAS LAYCOCK, M.D.,

Professor of the Practice of Medicine and Clinical Medicine; and Lecturer on Medical Psychology and Mental Diseases in the University of Edinburgh.

Importance of their Clinical Study—A Case of Graves' Disease from Fright without Anæmia—Another from Overwork—Cases of True Anæmia in Men and Women compared with each other and with Graves' Disease—Its Nature and Causes, and of inorganic Murmurs and Palpitations, specially in Women—Their Seat the Oculo- or Cilio-Spinal Region—Relations to Angina Pectoris, and of the Pupils to the Heart and large Vessels—Causes of the Exophthalmos—Staring Eye—Pigmented Eyelids—Treatment by Vasomotor Nervines—Iron—Heat and Cold to Spine.

Dr. Laycock prefaced his remarks in the cases observed and treated by saying, that the clinical study of aneurism of the large vessels in which the class had been last engaged was closely connected with those functional diseases of the arterial walls which simulate them. It is said that the pulsations and thrills of a vascular bronchocele have presented so close a resemblance to those of aneurism as to lead Surgeons to operate, and that even a like condition of the ophthalmic artery has led to the same practical error. But independently of diagnosis, these functional diseases of the motor vascular tissues have so important a practical bearing on all the great questions of physiology and pathology, that anything which elucidates them will throw light on all kinds of diseases whatever, not excepting those termed mental. I cannot doubt, in short, that the physiology of those nerves and nerve-centres which regulate the dilatation and contraction of the arteries and capillaries, and thus guide and control the circulation of the blood and the nutrition and function of organs, known as the sympathetic and vaso-motor system, will modify fundamentally both the theories and practice of Medicine. Some light has been thrown upon this obscure part of Medicine by cases of anæmia we have had under observation and treatment, and especially two of exophthalmos with palpitations, bronchocele, and purring thrill in the thyroideal arteries. This triple combination of morbid states having apparently no relation to each other, has been designated "Graves' disease" by Trousseau, because nearly thirty years ago—in 1835—that eminent and learned Irish physician called attention to it. In 1840, a German physician named Basedow carefully investigated its pathology, and hence it is named in Germany "Basedow's disease." Since these dates several able investigations of it have been published, and widely different opinions held as to its nature and causes. Dr. Stokes, with the Dublin school, holds to the doctrine that it is primarily and essentially a nervous affection. Basedow considered it to be an anæmic cachexia allied to chlorosis, and many of his countrymen concur. The French school seems to be divided, Professor Trousseau, the late Dr. Aran, and others agreeing with the Dublin school. Since Dr. Begbie read his paper in 1849 to the Edinburgh Medico-Chirurgical Society, entitled "Anæmia and its Consequences, Enlargement of the Thyroid Gland and Eyeballs," opinions here have, I think, been in accordance with the opinion expressed in the title. At one time I concurred in this view, but more careful observation and inquiry led me not only to adopt Dr. Stokes' views as to the nervous origin of the disease, but afforded me a knowledge of the particular portion of the nervous system affected, and in what modes. Two papers on the subject which I read to the Edinburgh Medico-Chirurgical Society were published in the *Edinburgh Medical Journal* for February and July, 1863, where you will find my conclusions stated together with the facts. This question, of course, has important practical bearings, for, if you adopt the treatment suitable for anæmia, in some of the cases you will certainly do more harm than good; while as to others in which anæmia coincides with the cardiac and vascular disturbance, it is practically true that you must treat something more than the anæmia, because in fact the impoverished state of the blood is not the sole or primary cause, as you have had abundant opportunities of knowing. The first case of exophthalmos did not remain in the Infirmary; but it is so characteristic that I will mention the leading facts observed.

Case 1.—*Vascular Bronchocele, with Exopthalmos and Palpitations (Graves' Disease) following upon a Fright—Neuralgia, but no Anæmia.*—Miss ——, age 35, came to the Infirmary to have an opinion regarding a tumour in the neck. She has always had plenty of food, but five years ago her life was threatened, and she suffered a dreadful fright. Of this event she speaks with a sort of awe and mystery; it arose, probably, out of a love affair. Immediately after the fright she noticed a small swelling in the middle of the neck, which got gradually larger, and became visible at the sides. She did not notice any prominence of the eyes for some time after the swelling. There is now (December 17, 1863) a large bronchocele, elastic to the touch, bilobed, more developed on the left side than the right, with a central rounded portion the size of a pigeon's egg. Enlarged veins pass over it, and there is visible pulsation in them. The veins of the arms are also turgid. Heart's action very rapid, and slapping as in nervous palpitation. No cardiac murmur, nor increased area of dulness. The eyes are very prominent, and the eyelids move spasmodically when the patient speaks, readily showing the white; the balls appear turgid, and the conjunctival vessels congested. There is also an incipient arcus senilis, and pigmentation of the whole surface of both eyelids, with turgidity of the palpebral vessels. The mucous membrane of the mouth and the lips are of a good colour; the complexion sallow or bistre, but not anæmic. The patient is very thin, and is of a highly nervous temperament. She complains of palpitation on the slightest emotion, and of general weakness and nervousness. She has likewise occasional pain in the shoulders and down both arms, not more on one side than the other. The pain reaches as far as the wrists, but not to the fingers. She has symptoms sometimes of the globus hystericus.

The blood was examined microscopically. Abundant red corpuscles were visible, which nummulated well; the white corpuscles were in normal amount. She was extremely afraid to have her finger pricked so as to draw blood, and did not return to the Hospital, probably from nervous alarm.

The second case has been four weeks under observation.

Case 2.—*Exophthalmos and Vascular Bronchocele, with Palpitations and Neuralgia, aggravated paroxysmally — no Anæmia.*—E. S., aged 23, unmarried, a stay-maker, who has had to work very long hours, was admitted November 28, 1863. She has always enjoyed good health till after an attack of acute tonsillitis which she suffered a year ago in Glasgow. She then observed a small swelling in region of thyroid body, and this tumour has grown rapidly ever since. Three months after its first appearance patient began to be troubled with occasional dizziness and dimness of vision. *On admission* a large swelling in the thyroid region was observed, which seemed, on examination, to be composed of three lobes, of which the middle one was round and hard, and the two lateral soft and not well defined, but extending beyond the sterno-mastoid muscles, which might be seen stretched over them, during the movements of the head. Appetite poor; sleep bad. Catamenia entirely absent for a year past, and but scanty formerly. Has had leucorrhæa for eighteen months. Complains of neuralgic pains shooting down both arms, especially the left; and affecting fingers of left hand, and producing in them a feeling of numbness and a pallid anæmic appearance. Both eyes were observed to be very prominent, but the lids could close perfectly over them. Patient cannot say exactly when this symptom first appeared. There is also pigmentation of the eyelids. She is nervous and excitable.

Subsequently, when under observation in the ward, it was seen that there was superficial venous vascularity over all the tumour, but more especially on the right side. The helix of the right ear was seen to be more vascular than of the left, and vascularity of the integument of the infra-clavicular regions was noticed, but chiefly over right. "Singing" in both ears, but more in right than left, and when she had attacks of pain in the right temples severe pain was felt at the same time down the right arm. A continuous venous murmur was heard over the tumour and over the

external jugular veins, more loudly on left side. There was also pulsation of the abdominal aorta to the left and above the umbilicus. The heart's action was always hurried and slapping at wrist, pulse ranging from 120 to 140, and a loud, rough, systolic (aortic) murmur heard at base. Besides the ordinary condition thus described, she had fits or paroxysms of violent palpitation, coming on chiefly at night, which began with nausea and a feeling of faintness and weakness, and then such sharp pains in the cardiac region as almost to take away her breath. These pains extended to the tumour, which visibly pulsated and communicated a strong thrill to the hand placed over it. The pulsation was most violent in the left infra-clavicular region. Pain was also felt down the left arm as far as the hand. The temporal arteries beat violently, and the hoarse systolic murmur was much louder than usual. Pulse from 140 to 160. Very profuse perspirations accompanied some of the paroxysms. Pressure on the lateral lobes of the tumour would at any time induce the sensation of nausea which ushered in these paroxysms. On one or two occasions profuse epistaxis preceded or accompanied the palpitations, perspirations, and faintness. While under treatment she had erythema nodosum of both legs, which were also slightly œdematous. The countenance was rather suffused than anæmic; no pallor of the lips, and no defect in the red corpuscles nor excess of white whenever the blood was examined microscopically, except on admission, when two unusually large white corpuscles were observed. Urine normal, but of sp. gr. 1015; bowels generally regular, and appetite fairly good.

General and local methods of treatment were tried. Ice was applied to the tumour, with the effect of reducing the vascular turgidity and diminishing the circumference from 15 to 14½ inches, but it gave her cold. Galvanism had apparently the same effect on the tumour, and made it harder to the touch, but no permanent good resulted. It was evident, from the size and hardness of the swelling, however, that both the central and lateral lobes of the thyroid had undergone degeneration. Iodide of potassium was fully tried, and seemed to be harmless; not so digitalis and iron. Full doses of digitalis increased the quantity of urine to sixty ounces, but the palpitations became more distressing. Iron was tried twice: first in the form of sulphate administered in the pil. ferri. co., then as the magnetic oxide. On both occasions all the cardiac and vascular symptoms were aggravated to a distressing degree, and relief followed when no more of the drug was given. Belladonna seemed to have the best effect, although its benefits were not well marked. She left the Infirmary with the bronchocele little diminished, and with only such general improvement in her health as rest from a confining and exhausting occupation and good diet might be expected to produce.

Anæmia and its Effects on the Heart and Large Vessels.—We have had under care several examples of well marked anæmia which we could compare with each other and with these examples of Graves' disease. A woman, aged 32, unmarried, was admitted into Ward XI., a typical example of anæmia, and treated successfully with iron and ergot. She had a fibroid tumour of the uterus, and for two years had been the subject of exhausting serous and sanguineous discharges. Her complexion was of a yellow, blanched hue; her lips pallid; her pulse jerking and quick; her legs swollen; but the heart's action never was observed to be above 100, except on one occasion, while it fell as low as 68. And although she had blowing murmurs in the abdominal aorta, heard through the tumour, and abdominal pulsations, due probably to the uterine irritation, there were no thrills nor tremors in the thyroideal arteries, no bronchocele, nor at any time any such palpitation as we constantly observed in E. S. Thirty minim doses of the liquor ergotæ thrice daily, combined with tincture of the sesquichloride, restored her to comparative health in a month. This patient had very prominent eyes, but it was not clear whether the condition was morbid or not. In another case of true anæmia we had, however, a more striking absence of all the proper symptoms of Graves' disease. It was that of S. D., aged 24, in the same ward, married, and who came in after suffering a miscarriage. This was preceded by profuse uterine hæmorrhage, continuing for three days, and was so great that the patient told us she awoke in the night and heard what she thought the pattering of rain, but it was the blood that was gushing from her, dropping through the bed into a pail below. She was blanched and utterly prostrate when admitted; her pulse 110 to 120, with intense headache. At first there was no souffle heard at base of heart; then it was gradually developed until it was fairly audible, although nothing more. But although she became generally anasarcous, with albuminuria and tube-casts, and laid for weeks in the utmost state of anæmia (for the blood was examined microscopically from time to time), the pulse was rarely above 100, and never at any time was the heart's action like that observed in E. S. In short, there was an entire absence of all the leading characteristics of Graves' disease, whether cardiac, vascular, or neuralgic. She recovered under the use of the sesquichloride and saccharated carbonate, of iron, with glycerine and bitter infusions, the blood finally showing its healthy microscopic character.

These two cases of undoubted anæmia were in women, in which sex, according to my experience, the so-called anæmic murmurs and palpitation are almost exclusively observed. But it has been a doubt now with me for some time past whether, even in these cases, it is the anæmia exclusively which gives rise to the murmurs, or whether there is not something in the constitution and morbid proclivities of the sex which is a cause of them, in part, at least. Now, we have had cases in males which enable us to compare the symptoms in the two sexes. A compositor, aged 42, lies in Ward 2, who is as blanched and anæmic as either of the women were; and his blood, on examination, presents all the characters of anæmic blood. His history is one of continuous hæmorrhage into the stomach or intestinal canal, while at the same time he is almost wholly unable to take nourishing food because of the gastric pain it excites. His pulse is quick and feeble, as in all these anæmic men; but he *has no anæmic murmurs* in the large vessels. We have often listened for them, and have never heard them. I might refer to other cases of profound anæmia in men with no murmurs—as, for example, the patient Marsh, who, with leukæmia, had repeated losses of bright fresh blood *per anum*; and to the case of the poor man in Ward 1 slowly dying of starvation from dysphagia, and who has had epistaxis. The *absence* of these murmurs in anæmic *men* is the rule; their *occurrence* the rule in *women*, but in women with true chlorosis and amenorrhœa, menorrhagia, and utero-ovarian disease. Even abdominal pulsations and murmurs, so common in the hypochondriacal and hysterical of both sexes, will not result from anæmia, as was proved by the absence of such murmurs in the cases referred to, although the aorta pulsated well; while in a case in Ward 1, with little anæmia, although cachectic looking, there is loud murmur.

The Nature and Causes of Graves' Disease and of Inorganic Murmurs in Women.—Now, what I say is the leading fact in these inorganic murmurs is also true of chlorosis, in which they are so striking a symptom, but conjoined with an irritable heart, and of Graves' disease. Both are almost peculiar to women. The only two exceptional cases of palpitation and vascular bronchocele I have ever seen were both in highly nervous, hysterical males. And as to women, it is observable, too, that none of the group of affections are seen in old women. They, therefore, are in relation with the age of reproductive activity, and are, in some way or other, associated in the sex with utero-ovarian function. The frequent coincidence of amenorrhœa in the unmarried patients with chlorosis and Graves' disease, and of leucorrhœa, menorrhagia, hysteralgia, or other like affection in the married farther points to this conclusion. And still more conclusive is the fact as to the relations of the thyroid body to the utero-ovarian function. It is often slightly enlarged during menstruation and pregnancy, sometimes dangerously—nay, even fatally; while at least 90 per cent. of the bronchoceles met with in this country are observed in women. In these respects the thyroid body is like the mammæ, and since it is now admitted by all, I think, that the influence of the uterus and ovaries on the mammæ during menstruation and pregnancy is exercised through the nervous system, we may infer that this vascular bronchocele is induced in like manner. In short, we may conclude from a collocation of clinical facts that neuro-vascular women, naturally of an emotional, excitable temperament, or who, during uterine activity or sexual excitement, have had fright, grief, excessive mental labour or other causes morbidly influencing the nervous system (amongst which we may place anæmia), or who are of an age at which the reproductive organs are *functionally* active, are predisposed to Graves' disease, and that emotional and similar mental states are the *exciting* causes.

The Spinal Seats of Graves' Disease.—But what particular portions of the nervous system are involved? Let us analyse the symptoms. And first, as to the violent palpitations. You will remember that on a previous occasion I called your attention to the case of angina pectoris in a man named M———,

who dropped down and died instantly in Ward 1. The post-mortem examination showed that he had fatty heart and extensive atheroma of the aorta and the large vessels arising from it. Now, as to the neuralgic pains he felt in the chest and arms, his case, like others of angina pectoris, presented the closest resemblance to the two cases of Graves' disease. Evidently the same sensory spinal nerves were affected in both—namely, the external and internal cutaneous nerves (nerve of Wrisberg), and the intercosto-humeral nerves derived from the four lower cervical and three upper dorsal nerves. This similarity is specially as to the sensory nerves. As to the motor nerves and the motor activity of the heart and large vessels there is complete dissimilarity. In the man we observed what is common in angina pectoris—and angina pectoris occurs in men almost exclusively, just as Graves' disease in women—diminished power, and therewith fatty degeneration, just as is seen to occur in voluntary muscles under like circumstances; in the woman, increased power and activity of both the heart and arteries. Now, as it has been shown experimentally that the oculo-spinal region contains a cardiac motor tract (a conclusion I was led to by clinical observation more than twenty years ago), we may conclude that in the case of angina pectoris the neuralgia (which, be it observed, is cutaneous) was associated with paresis of the spinal motor tract of the heart and large vessels in the man, in the woman with excessive motor irritability. It is probable, too, that in these there is also a hyperæsthesia of the endo-cardium—not sensory, but reflex—for in experiments on the vaso-motor functions of the sympathetic, increased capillary activity of the skin and cutaneous hyperæsthesia are conjoined.

The increased activity of the large arteries is dependent upon some morbid condition of the same "oculo-spinal" region. The cervical sympathetic regulates the circulation of the scalp and within the head; consequently various morbid conditions of the circulation of the scalp and brain are purely nervous, such as throbbings, headache, and the like. Both our patients with Graves' disease suffered in this way, more especially E. S. It is chiefly the lower pair of the thyroideal arteries which have been found affected with pulsations, hypertrophy, and dilatation, and observed after death to be atheromatous. These, be it remembered, derive their innervation from the sympathetic, while the upper thyroideal arteries are connected with the vagus system, though twigs they receive from the recurrent. When there is nausea, globus, difficulty of breathing, and the like, as in E. S., we may conclude that the vagus is also involved. Further, I am satisfied that the aorta is a symmetrical tube, and receives symmetrical innervation either from the sympathetic or the spinal centres, for I have observed from time to time cases of aortic atheroma (within the thorax) in which the change was symmetrical, presenting the form of rings of atheroma alternating with healthy structure.

What are the Relations of the Pupils to the Heart and Large Vessels?—The experiments of Waller, Budge, Claude Bernard, Schiff, and others have shown that injuries of that region of the spinal cord which I have marked out as the seat of cardiac and arterial neuroses influence the condition of the iris and the action of certain muscles of the globe of the eye. Hence it has been named a "clio-spinal" and "oculo-spinal" region. I infer that the pin-point contraction of the pupils observed in the fatal case of fatty degeneration of the heart (M———) was due to a palsy thus arising of the dilating fibres of the iris, and was part of the general motor "paresis," which led to fatty degeneration; whereas in the woman the pupils were not so affected. And hence the need for caution in drawing conclusions from the state of the pupils in cases simulating aneurisms; it led us wrong, you will remember, in M———'s case.

The origin of the exophthalmos has been explained by Claude Bernard, who, by irritating the motor roots of the first and second dorsal nerves, produced experimentally protrusion of the ball of the eye on the same side. Now, as the two women with exophthalmos have neuralgia referable to cutaneous nerves derived from the seventh and eighth cervical and first and second dorsal, we may conclude that the motor nerves of this region are affected also.(a) I have lately observed partial but distinct exophthalmos to be developed in the course of an acute pericarditis in a very nervous rheumatic woman of 20; so that it is probable the spinal region influences other affections of the heart.(b)

The state of the eyelids varies in these cases. In some they droop, as in E. S.; in others they are wide open, and there is a staring appearance, which gives an appearance of greater protrusion of the globe than really occurs. Spasmodic contraction of the eyelids, or, what may be termed dilatation, is seen in various cerebro-mental states, as pain, fright, horror, and in certain kinds of mania. Fright is often mentioned as an exciting cause of Graves' disease, and evidently induced it in our first case. It will also induce chorea in young girls, and therewith, in certain constitutions, a cardiac affection. It would be well to note the state of the eyelids also in such cases. *The pigmentation of the eyelids* observed in both the cases, like the other morbid conditions, is due to changes in the nervous system, and the special exciting cause is some morbid condition of the uterine system in nervous excitable women. I have shown you an excellent example of this change in an epileptic female patient with dysmenorrhœa, in Ward 11, in whom the pigmentation corresponds so exactly to the *orbicularis palpebrarum* as to mark it out in both eyelids. The change in capillary action of the eyelids is of the same character, such as increased vascularity, venous turgescence, and œdema, which not unfrequently may be seen to extend over the orbicularis of the eyelids, in the same way as the pigmentation. I consider these changes due to the same morbid state as the less common vascular bronchocele. The *genito-urinary* system acts on the oculo-spinal region, and, through this, on the vaso-motor or vascular system of the eyelids, as well as on the orbiculares, pupils, and certain muscles of the globe. When we remember that the eyes and eyelids are, strictly speaking, cutaneous tissues, we can have no difficulty in referring all these varied changes to the cerebro-spinal centres of the great sympathetic system.

We have tried various remedies of the class which act on the blood-vessels—ergot, digitalis, belladonna, strychnia, opium—in a variety of cases in which they were evidently involved. I think ergot, combined with the hot-air bath, was beneficial in well-marked cases of vaso-motor œdema. When the cutaneous system is sluggish, we may stimulate it advantageously, and thereby act upon the corresponding cerebro-spinal centres. Dr. Chapman has directed the attention of the Profession to a method of acting on the sympathetic ganglia through the vertebral region. He has a theory that heat and cold may be applied directly, as it were, to the sympathetic and cerebro-spinal centres through the cutaneous surface of the vertebral column, and that in this way we can modify the activity of the heart and of the capillary circulation in the viscera of the three great cavities. I do not think the theory will stand close examination, but if the clinical facts he reports are confirmed, we need not discuss that. These point simply to this conclusion, that heat applied to the spine diminishes vascular action, and cold increases it. Thus, he says that cold applied between the scapulæ develops the mammæ, or, over the lumbar region, excites menstruation when defective. On the other hand, heat so applied, he says, diminishes the size of a morbidly enlarged mamma and checks the menorrhagia. In case of E. S., therefore, to diminish vascular and cardiac action, we should have applied heat along the cerebro-spinal region. Although I do not think the theory of a *direct* influence tenable, which these clinical facts are supposed to establish, for we can explain the *modus operandi* otherwise on well-established principles, still the facts themselves are not the less valuable if confirmed, and the means are so simple as to warrant a trial.

KENT MEDICAL BENEVOLENT SOCIETY.—This Society has just published its seventy-seventh annual Report, which indicates continued growth and success. The income of the past year was £544, out of which £350 was voted to eight annuitants, leaving, after payment of incidental expenses, a considerable sum to be added to the already large amount of £800, invested in three trustees. The number of members is 180, who contribute £1 1s. annually. We are surprised that a society with so much to recommend it, and, as far as we can judge, so well conducted, is not supported by every Medical man in the county.

(a) At a subsequent lecture, Dr. Laycock stated in proof of this view that E. S. had returned to the Infirmary suffering from neuralgic torticollis, evidently due to spasmodic contraction—chiefly of the trapezium, but also of the sterno-mastoid of the right side; and he pointed out that as the spinal accessory nerve which supplied these muscles takes its origin from the same spinal region as the seventh and eighth cervical, the affection was probably due to the same morbid condition as the other neuralgiæ. Hot applications between the shoulders relieved this spasm; but a bilious pneumonia of the *right* lung followed.

(b) A man of 40 was lately admitted into Ward 1 with violent attacks of cardialgia. His eyes had become very prominent within the last three weeks. He had that "precordial vascularity" which Professor Laycock has found to indicate a constitutional tendency to vaso-motor excitement.

ORIGINAL COMMUNICATIONS.

ON THE TREATMENT OF TETANUS BY THE LOCAL APPLICATION OF TOBACCO.

By HENRY J. TYRRELL, F.R.C.S., M.R.I.A.,
One of the Surgeons to Jervis-street Hospital.

On February 19 I laid before the Surgical Society of Dublin (see the *Dublin Medical Press*, March 2, 1864) the details of a case of traumatic tetanus treated by the application of tobacco stupes to the wounded part, and then I stated my reasons for preferring the topical use of tobacco to the internal administration of nicotine, as recommended by Professor Haughton, in 1862, in a paper which he read before the College of Physicians.

As another and better marked case of acute tetanus has lately been treated and cured by me by the use of tobacco locally applied, I think it advisable to let the Profession know, through the columns of the *Medical Times and Gazette*, the manner in which I have acted and my theory on the subject. It is that as tobacco or its active principle, nicotine, is of service when given internally, *à priori* it should be more so in peripheral or eccentric tetanus if applied locally by paralysing the nerves of the affected part from which the irritation proceeds, and thus removing the cause of tetanic spasms; and that when tetanus arises from a small wound, when a decided impression should be made quickly, a solution of nicotine of known strength or of tobacco should be applied to the wound and surrounding parts. And in the idiopathic form of the disease, if the cuticle along the back was raised by a blister, the endernic use of the remedy would more quickly bring the cord under its influence and with less vital depression than when given internally.

In the first case which I treated the wound was large, but in the subject of the present communication it was very small and insignificant, not calling for Surgical assistance. The following is the history of the case:—

Michael K., aged 35 years, by trade a painter, of temperate habits, was admitted into Jervis-street Hospital on June 22, 1864, under my care. He was carried to the Hospital by four men in a state of great prostration, his teeth clenched, the muscles of expression and mastication rigidly contracted, the dorsal and cervical muscles also rigid. He was conscious and able to speak a little, but could not open his teeth to the slightest extent; he was bathed in a cold perspiration, his pulse 95, very weak and intermittent. His wife stated that on the 10th of June he cut his nose by a slight fall against a wall, but so trivial was the injury received that he thought nothing about it, went on with his work as if nothing had happened. However, on the 19th he felt some stiffness in the jaws, for which a Medical man recommended him to apply a mustard poultice, and to take some medicine which he gave him. He rapidly got worse, and she had him taken to the Hospital. On examination I found a slight lacerated wound about half an inch in length on the right ala of the nose: it appeared indolent, without disposition to heal. There was no difficulty in the diagnosis; it was evidently one of acute traumatic tetanus with extreme depression.

If I gave nicotine I was afraid the depressing action of the drug would prove fatal, and recollecting the success which attended the local application of tobacco stupes in the case which I published, I determined to give another trial to the plan. As the wound was very small, I had the cuticle from the entire nose and for about twelve inches square of the back of the neck removed by boiling water and vesicating collodion, and covered the denuded surfaces with spongio piline saturated with a strong solution of Cavendish tobacco. The infusion was made by infusing one ounce of the unrolled leaves in twenty ounces of boiling water for an hour. The infusion was not strained, and both water and leaves were applied. I likewise determined to support his failing strength, and for this purpose directed an enema of sixteen ounces of strong beef-tea to be thrown up the rectum to unload the intestine, and after that was accomplished an injection to be administered every two hours, containing one ounce of brandy, ʒj. of sulphuric ether, four grains of sulphate of quinine, and six ounces of strong beef-tea. My residents, Mr. O'Grady and Mr. Fegan, remained up during the night, and attended most carefully to the patient.

June 23, 9 a.m.—He passed a very restless night; pulse 88, weak and intermittent; respirations 30; did not sleep; the muscles of the neck slightly relaxed; the abdominal and dorsal muscles more tense if possible; he cannot swallow his saliva, any attempt to do so gives exquisite pain in the fauces and brings on severe spasms, throwing the body into an arch with the heels and head resting on the bed. I ordered the treatment to be continued, but with an interval of four hours between each enema; a fresh infusion of tobacco to be made. I saw him again at 2 p.m.—Spasms somewhat relaxed, and he can separate his teeth so far as to allow a cedar pencil between them; pulse 86, stronger, not intermittent. 4 o'clock.—The rectum rejected the enema, and at 6 the pulse rose to 108, and became excessively weak. 9 p.m.—Ordered the enema to be repeated, having added to it twenty grains of tinct. opii.

24th.—1 a.m.—As he could swallow by sucking through a sponge, I ordered him a draught containing one ounce of brandy, 20 gtlas. tinct. opii in a glass of water; this he took through a sponge. However, it was with great difficulty he managed to swallow it, as now and again a drop would go wrong and cause the most distressing spasms. He took forty minutes to get it all down. After the draught the pulse fell to 92, and became stronger. 3 a.m.—He swallowed through a No. 8 catheter ʒss. of brandy in a glass of water with gr. x tinct. opii. He is afraid to sleep, when he dozes he starts and moans and roars most fearfully. However, towards morning he fell into a refreshing slumber, and at 7 o'clock he drank with ease a pint of beef-tea through the catheter. 9 a.m.—The tension of the neck very much less than it has been since his admission, but the abdomen if possible more tense. During the day he drank a quart of beef-tea, having in it twelve eggs and twelve ounces of whisky. The stupes were frequently renewed. Slept four hours during the night.

26th.—Neck quite pliant; back and abdomen same as on yesterday; towards evening he became delirious, and his hearing was morbidly acute. Pulse at 10 p.m., 102.

27th.—9 a.m.—Pulse 100. Delirious. Suspects every one is attempting to poison him. During the day he took twelve eggs and one quart of beef-tea without the catheter. Slept at intervals.

28th, 9 a.m.—Delirium much increased; he will not allow any one to attend him, not even his wife. Ordered the following mixture:—℞ Quinæ sulphatis, gr. xxiv.; morphia sulphatis, gr. ij.; aqua distil., ʒviij. ♏; capiat, ʒj. ter. horis, and the following draught to be given at 10 p.m.:—℞ Chloroform, gt. xx.; liquor opii. sed., ♏ xxv.; syrupi croci, ʒj.; aq. distill., ʒvij.—m. ft. haustus. During the night he got no sleep, but continued very restless.

29th, 9 a.m.—Pulse 108, weak; he fell asleep at 10 a.m., and slept soundly until 5 p.m.; he got restless again during the night, and got at intervals ♏ 50 of tinct. opii., which calmed him towards morning, when he again slept.

30th.—He awoke at 8 a.m.; at 9 I saw him, delirium quite gone, recollects nothing about it. The neck and back quite relaxed, but complaining of the tension of his abdomen and of a severe shooting pain from his xiphoid cartilage to his spine and of cramps in the thighs. I directed tobacco stupes to the belly and thighs, but did not blister the surface beforehand. The beef-tea, etc., to be continued.

July 1, 2, 3.—Getting gradually well, and on the 4th he could open his mouth to the natural extent; the back and abdomen quite flaccid, in fact, I pronounced him cured, applied simple dressing to the blistered surfaces, and gave up the use of tobacco altogether.

In two days after he took a shivering fit, and afterwards went through a severe attack of pneumonia; however, he got quite well, and was discharged fit for work on the 12th of this month.

REMARKABLE CASE OF CARDIAC DISEASE.

By JAMES YOUNG, M.D., Edin.

On the 23rd of January last, I was consulted by Mr. A. B. His laborious breathing, which was accompanied by violent action of the heart, evinced almost without examination, the disease under which he suffered. I discovered the existence of a slight bronchitic condition of the right lung, accompanied with tumultuous action of the heart. On the following morning I addressed myself to a more careful examination of both these organs under more favourable circumstances—viz., while my patient was quiet at his own house. Percussion showed no evidence of any mal-position of the heart, but on applying the stethescope I found the action of that organ to

be rapid, irregular, and tumultuous. No *bruit de soufflet* could be heard, either with the first or second sound; indications, however, were not wanting of a weak or flabby heart. The patient's breathing, even when quiet, was laboured and quick, the respirations numbering from 30 to 40 in a minute, and if he attempted to shave, wash, or dress, frequent rests were imperative.

When he attempted to go out, he could only walk a short distance slowly, and was under the necessity of sitting down to rest as soon as possible, breathing heavily; to mount a stair was a feat not to be mentioned. He was annoyed by a frequent cough, both the cough and breathlessness being, in my opinion, partially consequent on the heart's abnormal action.

It well deserves mention as a fact in the *historia morbi* under which Mr. A. B. laboured, that he had an attack of rheumatic fever in 1854, and that since that period he has suffered from rheumatism in various joints.

His temperament was highly nervous, and he had at intervals slight derangement of the liver and kidneys. As the recumbent posture was an impossibility, he was compelled to sit in a chair in order to sleep, of which he could obtain snatches only. His appetite was meagre, bowels regular, and his urine non-albuminous.

As to the treatment followed, let me say, that from the commencment this of course was non-stimulating, with a light nutritious diet, gentle aperients when necessary, and sinapisms to the chest and back.

Etherial preparations were used without benefit. Chlorodyne produced sickness, but at a subsequent period it was taken easily, and with relief.

The mindererus spirit with small doses of the spirit of sulphuric ether were administered, not without some temporary benefit. After consideration, I proposed to put the patient under the influence of digitalis, but before doing so I had a consultation with Dr. Begbie. We resolved to confine Mr. A. B. wholly to the drawing-room, in order to avoid stairs, as the least exertion did him harm. We first administered iron, in the form of the tincture of the perchloride, and a belladonna plaster was applied over the region of the heart. Not only could no improvement be perceived, but anasarca of the feet and ankles supervened, which gradually involved the whole lower extremities. This was about the end of February.

The tinctures of digitalis and squills were now ordered, in ten drop doses of each, three times a-day, alternately with the tincture of the perchloride of iron and the Virginian prune. This treatment was continued for some weeks, and was followed by results alike extraordinary and pleasing. The heart's action became more regular and less rapid; the breathing more quiet and easy; and the œdematous condition of the extremities began to subside. A slight rheumatic attack, which occurred in the month of March, rendered it necessary to discontinue the medicines for some days, but as this rapidly yielded to the tincture of actea, the use of the digitalis and squills was resumed at intervals. At the end of March the action of the heart was quiet and regular, as compared with what it had been during the previous six months.

Mr. A. B. was still restricted to the drawing-room floor, but allowed to move about from room to room, the greatest quietude being preserved, and no visitors allowed to see him.

He continued to progress till April, when the improvement became more marked than ever, the hurried respirations having ceased, the severe oppression in the chest entirely removed, and the cough very slight, so that he could now rise, dress, and shave without any inconvenience.

Now, too, he could lie down in bed easily and sleep, never requiring to rise, which he had not been able to do for more than six months; his general health was excellent, and he could walk up and down stairs without much inconvenience.

In May he spent some weeks at Bridge of Allan, where he improved in strength.

I saw him on his return, which was on June 7, when, having carefully examined his chest, I found the heart acting regularly and quiet, and the lungs healthy. He was able also to take a moderate amount of exercise. He now says he is "very well," and speaks of soon returning to the business of active life.

Remarks.—We are all aware that disease of the heart may assume a variety of characters, the Physician being called on in daily practice to prescribe in cases of organic, as well as in functional diseases of that organ. I have only one observation to make in reference to this case, and I have done. It relates to the effect of rheumatic fever in the production of cardiac disease. That that fever often leaves behind it no evil result whatever is very well known. We are also aware that complete organic disease may be in some cases the result, and this is looked upon as the probable issue of rheumatic fever. A third result of that form of fever is the production of an enfeebled, irregular, and tumultuous action of the heart, which is regarded by some pathologists as indicative of organic disease, but may, as in the case above rehearsed, point to functional derangement only, amenable to successful treatment.

P.S.—August 23.—My patient has now returned to business.

36, North Castle-street, Edinburgh.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

SAMARITAN HOSPITAL.

DIAGNOSIS BETWEEN OVARIAN DROPSY AND ASCITES.

(Clinical Remarks by Mr. SPENCER WELLS.)

During the past summer the question as to ascites, ovarian dropsy, or the co-existence of the two diseases, arose in several cases; and we are indebted to Mr. Spencer Wells for the following practical remarks upon the means of recognising each of these forms of disease:—

Our senses of sight, touch, and hearing are all required to assist us in distinguishing ascites from ovarian dropsy, the physical diagnosis being established—1, by inspection and measurement; 2, by palpation; and 3, by percussion and auscultation.

I.—On *inspection*, the *size* of the abdomen is seen to be increased both in ascites and in ovarian dropsy; and, when an ovarian cyst is large, the abdominal enlargement is general, as it is in ascites. But while the cyst is of moderate size, the abdominal enlargement is often partial, more to one side than the other, more below the umbilicus than above. In *form*, the flanks and sides of the abdomen protrude in ascites, the front not being more convex than in the natural state, or it may be flattened; while in ovarian disease the bulging is generally most evident in front, less so at the sides, and often more on one side than the other. When the different portions of a multilocular cyst can be seen, of course all doubt is dispelled, but these remarks apply to simple cysts only. Alterations in position generally produce a greater and more immediate change in the form of the abdomen in ascites than in ovarian disease, the free fluid gravitating much more readily than a cyst can move. The normal depression of the *umbilicus* is altered whenever the general abdominal enlargement is considerable both in ascites and ovarian dropsy; but in the latter disease, although it may be flattened as in pregnancy, it is never prominent and bulging as it very often is in ascites, or when ascitic fluid surrounds an ovarian tumour. The *superficial veins* may be enlarged from the lower part of the abdomen to the chest on one or both sides in either disease. This appearance only assists in diagnosis when the enlargement is much more evident on one side than the other. Such undue importance has been given to enlargement of the superficial abdominal veins as a distinction between ascites and ovarian dropsy, and between simple and malignant tumours within the abdomen, that the following facts should be recollected:—

Congestion of the epigastric veins, when seen merely as a fine network of capillary veins, is usually a simple result of absorption of the cutaneous fat, the vessels becoming visible through the thinned and distended skin, and of no diagnostic value. When some of the larger veins, distended or varicose, are seen to run from the inguinal region upwards, and either cease abruptly in the middle of the abdomen, or run to the hypochondriac region, or even up to the clavicles anastomosing with branches of the mammary and intercostal veins, the impediment to the circulation may be of several kinds.

It will be remembered that the epigastric veins are part of the system of the inferior cava. They are usually very small. They begin in the subcutaneous cellular tissue by small radicles, which unite on each side of the body to form two branches—one, small and internal, runs up on each side of the middle line—one, larger and external, can be traced upwards to the side of the thorax and to the axillary vein. These two branches unite on each side close to Poupart's ligament, and open into the internal saphena vein at the spot

where this vein and the femoral vein unite. The superficial fascia lies between these veins and the recti muscles.

The causes of stagnation or retardation of blood in the epigastric veins are—

1. In the *heart* itself, impeding the return of blood from the cava.

2. In the *trunk* of the inferior cava—(*a*) tumours pressing the vein towards the vertebral column; (*b*) coagula within the vein; (*c*) extension of cancer to the vein. The varicosity of the veins of the lower extremity is often prevented by a free collateral circulation being set up by dilatation of the vena azygos.

3. In the larger *branches* of the inferior cava—(*a*) pressure of tumours, Cruvelhier has seen both iliacs obliterated by the pressure of an ovarian tumour, and the epigastric veins dilated to the thickness of a goose-quill running to the axillæ. (*b*) Coagula; (*c*) pregnancy.

4. In the *Portal System*. As the hæmorrhoidal branches of the inferior mesenteric vein (one of the veins forming the portal system) unite in the hæmorrhoidal plexus with the hæmorrhoidal veins which run into the internal iliac vein, there is a free communication between the portal and general venous systems. By throwing injections either into the vena porta or the pelvic veins, Cruvelhier has proved that the pelvic, hæmorrhoidal, internal pudic, obturator, and gluteal veins anastomose very freely. So that mesenteric and other tumours, which may, perhaps, not cause direct pressure on the cava, may lead to dilatation of the epigastric veins secondarily, by their effect on the vena porta or its branches, just as any disease of the liver which leads to impeded portal circulation may have the same effect.

When the integuments are œdematous, the lineæ albicantes become more prominent than the neighbouring portions of skin, and have a knotty appearance which has led to the mistaken appellation of *varicose lymphatics*. Nearly all the cases in which I have observed this appearance have been cases of tumour surrounded by ascitic fluid. The *movement* on respiration is defective, both as regards the soft wall of the abdomen and the lower ribs; while the respiratory movements of the upper ribs are exaggerated in both diseases. The alteration in movement only assists in diagnosis when it is partial or affects only one side. On making deep inspirations the upper part of an ovarian cyst may often be seen to rise and fall. This appearance is very characteristic. In ascites it may be simulated by some distended coils of intestine moving with the diaphragm; but the resonance of the intestine on percussion instantly settles all doubt on this point.

On *measurement*, the enlargement of the abdomen in ordinary ascites is equal on both sides, or symmetrical; and, although the distance from the sternum to the pubes is increased, the umbilicus retains its normal position—about an inch nearer to the pubes than to the sternum—and is about on a level with the highest point of the crest of the ilium on each side and midway between these two points. In ovarian dropsy there is often a considerable alteration in the measurements between the umbilicus and sternum and umbilicus and pubes, as well as between the umbilicus and the two cristæ ilii. In ascites the greatest circular measurement is at the level of the umbilicus; in ovarian dropsy it is often some inches below that level.

"II. On *palpation*, the abdominal wall is felt to be harder and more resistant than natural in both diseases in the parts where much fluid is present, but is soft and elastic in other parts. Consequently the variation in the seat of hardness with the position of the patient becomes useful in diagnosis, the fluid in ascites gravitating freely to the most dependant part. *Fluctuation* is perceived with varying distinctness according to the degree of tension of the abdominal wall, to the thickness of the layer of fat, to the amount of œdema, to the thickness of the peritoneum or of the cyst, to the quantity and character of the fluid, and to the amount of tympanitic distension of the intestines. In itself, it offers no assistance in diagnosis, because a thin-walled ovarian cyst, filled with limpid fluid, with a moderately tense and thin abominal wall, would give a more quick and decided wave than a moderate quantity of ascitic fluid beneath an abdominal wall thickened by fat or subcutaneous œdema. The characteristic peculiarity of the fluctuation in ascites is that it varies with the position of the patient, and is only perceived in the parts where the fluid gravitates towards the abdominal wall; while in ovarian dropsy its situation does not vary with position, but is perceived wherever fluid is to be discovered by

III. *Percussion*.

The two following diagrams represent the situation of clear and dull sounds obtained by percussion in typical cases of ascites and ovarian disease, the patient lying flat and evenly on her back. The dark parts of the abdomen are dull, the

rest clear. In ascites the stomach and intestines are above and in front; the fluid behind and on either side. In ovarian dropsy the fluid is in front, extending in different degrees to either side, and pushing the stomach and intestines upwards and backwards, just as a gravid uterus does. The figure to the right, indeed, would represent either a gravid uterus near the full period of pregnancy, or an ovarian cyst of about the size of such a uterus, and situated centrally, as ovarian cysts often are at this or rather a later period of their growth. But quite as frequently they tend towards one side or the other, in such cases the diagnosis being, of course, easier.

It is seldom that a patient with ascites lies so flat as not to raise the shoulders enough to throw a layer of fluid downwards towards the pubes. Very often the dulness may extend as high as the umbilicus, and generally does so when the shoulders are much raised by pillows. This might lead a superficial observer to suppose that the disease was ovarian, because there was a dull sound in the front of the abdomen; but on lowering the shoulders, and placing a pillow or hassock under the hips, the fluid at once gravitates towards the diaphragm, the intestines float to the surface, and a clear sound is obtained when it was dull before. No such alteration in the position in the situation of dulness can possibly occur in ovarian disease. So on turning from side to side, the fluid gravitates to the side which is low, and the intestines rise to the upper side, with corresponding changes in the situation of dull and clear sounds on percussion. No such alteration can occur in ovarian disease. Again, at any spot near the level where the resonance of the intestines ends, and the dulness of the fluid begins, and a dull sound is elicited by *gentle* pressure and percussion, a *deeper* pressure will displace the fluid, and the resonance of the intestines will be again heard. At the most depending spots the amount of pressure necessary to obtain a clear sound is some guide to the estimation of the thickness of the layer of fluid. No such difference in the sounds from superficial and deep percussion can occur in ovarian disease. It has been supposed that percussion on the loins is a very sure guide in diagnosis,—that when the patient is sitting up and one loin is clear and the other dull the disease is ovarian, but that when the sounds are the same on both sides it is ascites. One dull side is also supposed to be a proof that the ovary of that side is the one diseased. But there are so many exceptions to these rules that they are of no great value, except as corroborating or counterbalancing other physical signs. Auscultation affords little information, but it shows the presence of the gurgling sounds of the intestines in the spots clear on percussion, and the absence of these sounds in the dull spots, except on deep pressure by the stethoscope. In both diseases the fluctuation wave of fluid may be heard as well as felt.

By applying these general rules in any ordinary case, a few seconds will enable the Surgeon to clear up all doubt. But there are various conditions which may lead to the necessity for further examination. The fluid in the peritoneal cavity may be so large in quantity that the front of the abdomen is pushed far beyond the reach of the intestines. They float as far as the mesentery will allow them, but cannot reach the surface of the abdominal wall. In this case percussion must give a dull note in front just as it does in ovarian dropsy. So when the intestines are fixed in the back part of the abdomen by adhesions, or by a thickened omentum, the fluid is circumscribed in front as in ovarian dropsy. Or an ovarian

cyst may contain air, either from a perforating communication with intestine, or after tapping and decomposition of fluid, in this case percussion giving a clear note in front or above, and a dull note behind or below as it does in ascites. In these cases physical diagnosis alone cannot solve the doubt, and we have to consider all that can be learned from the history of the case and the general condition of the patient. So, when fluid is free in the peritoneal cavity we must resort to tapping and chemical or microscopieal investigation before we can decide whether the fluid is the ordinary non-inflammatory serum which transudes into the cavity in cases of heart, liver, or kidney disease, or the inflammatory exudation of chronic peritonitis in its simple or its tubercular form, or whether it may be ovarian fluid which has escaped from a perforated or ruptured cyst. And when ascitic fluid surrounds a tumour which can be felt either by deep pressure or after tapping, we have to determine whether this tumour is ovarian or uterine, or some form of intra-abdominal cancer, or some hydatid tumour of peritoneum, omentum, or liver; or some tumour of liver, kidneys, or pancreas; or some retro-peritoneal tumour—aneurism, enlarged mesenteric or lumbar glands, enchondroma, cancer of vertebræ, and so on. But these are all beyond the scope of remarks upon the physical diagnosis between ordinary ascites and a simple ovarian cyst of large size.

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Medical Times and Gazette.

SATURDAY, SEPTEMBER 24.

THE PRESIDENT'S ADDRESS AT THE MEETING OF THE BRITISH ASSOCIATION.

Sir Charles Lyell's inaugural address at the Bath meeting of the British Association contains so much of interest no less to the Medical than to the general reader that we offer no apology for giving a slight *resumè* of its principal topics. In the ground he travelled over, the new President of the Association did not step out of his own domain. Taking for his text the hot springs of Bath, he discoursed to his hearers on the nature and causes of thermal waters, their connection and analogy with volcanic phenomena, their gaseous and mineral constituents, and their antiquity. Thence he passed to the changes in the physical geography of the neighbouring districts of England and Wales, the probable causes of the period of extreme cold in Europe known as the glacial period, the existence of man and extinct mammals in post-glacial times, and to the chronology of that far-reaching era. It will be seen that his address differed in its scope and character from the brilliant oration pronounced by Sir William Armstrong last year at Newcastle. Sir William took a rapid survey of the progress which science had made in all its branches during the year that had passed. Sir Charles confined himself to his special study, and to a few topics only. The two addresses, therefore, do not admit of comparison, but did they it would be difficult to assign to one in preference to the other the palm of interest and value.

The distance of the hot springs of Bath from the nearest region of violent earthquake, or of active or extinct volcanoes, their great volume and high temperature, render them unique in England, and almost without parallel in Europe. What are the deep subterranean sources whence their heat and mineral matter are derived? There is good evidence that for 2000 years the thermal springs of Europe have not declined in temperature. The Romans used them as we do, and there is no reason for believing that they employed artificial means to cool their waters. The volume of their water does not vary with the seasons as does that of ordinary springs; and century after century they bring to the earth's surface the same mineral ingredients. How long this uniformity has prevailed can be but a speculation. Sir Charles suggests that, like Vesuvius and Etna, they are only of high antiquity when contrasted with the short space of human annals. The foundations of those mountains, although tens of thousands of years old, yet were laid when the Mediterranean was inhabited by the same species of marine shells as those by which it is now peopled; and, therefore, geologically speaking, they are of yesterday. There are, nevertheless, some exceptions to the rule of general persistency of thermal springs. Earthquakes, violent enough to disturb the subterranean drainage and alter the shape of the fissures up which the waters ascend, are the great causes of such variations. During the great earthquake at Lisbon the temperature of a spring called La Source de la Reine, at Bagnères de Luchon, in the Pyrenees, was suddenly raised 75° F., and has ever since retained the same heat. Instances have also occurred where during earthquakes hot springs have become cold. Their frequent occurrence in volcanic districts is a link between the hot spring and the volcano. As we recede from the great centres of igneous activity, the thermal waters decrease in frequency and average heat. The exceptions to this rule are where, as in parts of the Alps and Pyrenees, hot springs are met with in districts which have been violently convulsed by modern earthquakes. The water of the hot spring has its representative in the vast clouds of aqueous vapour discharged by the volcano, and even the voluminous masses of solid matter corresponding to the heaps of scoriæ and streams of lava poured out by the latter have their analogy in the mineral compounds held in solution by the thermal water. Professor Ramsay has calculated that if the sulphates of lime and soda, the chlorides of sodium and magnesium, and the other mineral ingredients which the Bath waters contain were solidified, they would form a square column nine feet in diameter and 140 feet in height. Were the action of the spring intermittent, so that ten or twenty, or even, as in the case of Vesuvius, 300 years interposed between its discharges, the phenomena of such outbursts would be worthy of comparison with the outpourings of a volcano.

The gaseous constituents of thermal waters was the next point touched on by Sir Charles. Dr. Daubeny found in 1833 that the Bath waters evolved nitrogen to the amount of 250 cubic feet in volume daily. His theory is that the nitrogen is derived from the atmospheric air which is dissolved in rain water, and permeates the earth's crust. Carried down into the heated interior, it is deoxidated, and the free nitrogen is driven up by the expansive force of heat and steam, or by hydrostatic pressure. Professor Bischoff has suggested the very obvious theory that the nitrogen may be derived, at least in some places, from organic remains. Be this as it may, the evolution of nitrogen is characteristic of hot springs, and it is also discharged in large quantities during volcanic eruptions. Carbonic acid is another of the gaseous ingredients evolved with thermal waters. Bischoff observes that this gas, in passing upwards and percolating the silicates of the oldest rocks, must continually decompose them, and that the carbonates thus formed must augment the volume of the altered rocks. This increase of bulk will act as a force of expansion, and is probably one, although Sir Charles thinks a minor, cause of the oscillations in level which take place in the earth's surface. The temperature of the Bath springs varies from 117° to 120° F. That of the spring of Aix la Chapelle is 135° F., but this is only situate forty miles from the cones and lava streams of the Eifel, whilst Bath is 400 miles distant, and 440 from

Auvergne, another volcanic district, the activity of which was coeval with that of the Eifel. When those two regions of France and Germany were the scenes of frequent convulsions, there is reason to suppose that England was much more frequently and rudely shaken than now, and the shock of October last was probably only a languid reminder of a force whose energy is dying out. The numerous lines of fault or displacement in the neighbourhood of Bath prove that it was once the scene of great convulsions. Of these the Bath springs mark the site. The solid constituents—the sulphate of lime and chloride of calcium, etc.—of thermal waters may be derived from the decomposition of the gypseous, saline, calcareous, and other constituents of the rocks, which the rain-water permeates in its downward course. Most of the constituents are also contained in sea-water, and this might suggest a marine origin, but they are in very different proportions in the thermal spring and in the sea. In the Bath waters there are fourteen grains of chloride of magnesium to twelve grains of chloride of sodium, whereas in sea-water there are twenty-seven grains of the latter to four of the former. This fact does not, however, militate against the theory that some mineral springs may derive an inexhaustible supply through rents and porous rocks from the leaky bed of the ocean. Three metals have been lately discovered in the Bath waters by Professor Roscoe, viz., copper, strontium, and lithium, bnt he has searched in vain for any trace of the new metals, cæsium and rubidium. The two latter have been detected by spectrum analysis in the hot waters of Baden-Baden and Durkheim by Professor Bunsen. Lately, however, a hot spring has been discovered at a great depth in a copper mine near Redruth, in Cornwall, of which no account has yet been published. The water of this spring, which is as hot as that of Bath, has been analysed by Professor Miller, of King's College. He finds that it contains four times as much solid matter as the Bath water. Its composition is also very different. It contains but little sulphate of lime, and is almost free from the salts of magnesium, but it is rich in the chlorides of calcium and sodium; it contains the new metal cæsium, but its most remarkable constituent is lithium, which forms no less than the twenty-sixth part of the whole of the solid matter contained in the water. Spectrum analysis has proved that lithium is far more generally diffused than has been heretofore supposed. It exists in almost all mineral waters, in the sea, in milk, in human blood, and it is found in the ashes of some plants. Sir Charles, referring to its use in Medicine, remarks that it will now be obtainable in larger quantities and at a much cheaper rate than before the Wheal Clifford waters were analysed. The obvious bearing of these new facts on Medicine releases us from the necessity of comment.

From the Wheal Clifford mine Sir Charles Lyell was naturally led to the supposed connexion between hot aprings and metallic veins. Thermal waters, although rich in alkaline salts, rarely contain traces of the precious metals, the slight trace of copper in the Bath waters being exceptional. Nevertheless there is a strong presumption that there is some relationship between the action of thermal waters and the filling of rents with metallic ores. The component parts of these ores may rise from great depths in a state of sublimation, or in solution in intensely heated water, and may be precipitated on the walls of a fissure as soon as the ascending vapours or fluids begin to part with some of their heat. Everything that is not soluble would be left behind long before the water reached the earth's surface. The metalliferous deposit thousands of feet or fathoms deep, must wait the successive upheavals of ages before it comes within the ken of the miner; and long before this the thermal springs with which its origin was associated will have ceased to act. Light is also thrown by the study of these waters on the metamorphism of sedimentary rocks. Strata of various ages, many of them charged with organic remains, have been rendered partially or wholly crystalline. The process by which this has been effected is the result of heat. Mountain masses have been so changed, and it is difficult to explain in what manner sufficient heat to induce such changes in the molecular constitution of enormous sedimentary tracts could have come into play without utterly annihilating every sign of stratification and of organic remains. Experiments render it probable that the minerals thus changed have not crystallised from a state of fusion, but from one of solution, a process requiring much less heat. Thermal springs charged with carbonic and hydrofluoric acids are powerful causes of decomposition and chemical reaction in the rocks through which they permeate. Large masses of hot water permeating mountain masses may therefore, in the course of ages, superinduce in them a crystalline structure. The efficacy of such hydro-thermal action has been of late years exemplified by the observations of Daubree on the alkaline waters of Plombières, in the Vosges. These thermal waters have a temperature of 160° F., and were conveyed by the Romans to baths through long conduits or aqueducts. Through the masonry the hot water has now been percolating for centuries, and in the intervals of bricks and mortar are now found various zeolites—apophyllite and chabazite, calcareous spar arragonite, and fluor spar, together with siliceous minerals, such as opal. The quantity of heat thus brought into action during 2000 years is enormous, although at any moment its intensity would be inconsiderable. In like manner, the study of the constituent parts of granite has led to the conclusion that their consolidation has taken place at temperatures far below those formerly supposed to be indispensable.

We have left ourselves but little space to notice the latter part of Sir Charles's address, which referred to the causes which produced the glacial period, and to the existence of man in post-glacial times. The former were, he supposes, alterations in the physical geography of Africa and Europe—the submergence of the great African desert, the Sahara, which is shown by Escher to have been in post-tertiary times a sea, stretching from the Gulf of Cabes, in Tunis, to the West Coast of Africa, north of Senegambia. The well-known sirocco wind which now melts the snow of the Alps would in passing over such a sea undergo a complete change. No longer a hot, dry wind, having absorbed moisture from the African sea and the Mediterranean, it would strike the Alps in a complete state of saturation, and would be driven up into the higher and more rarefied regions of the atmosphere. "There the aërial current, as fast as it was cooled, would discharge its aqueous burden in the form of snow, so that the same wind which is now called "the devourer of ice" would become its principal feeder." The Alps at this time probably also were much higher than now. Another source of refrigeration may have been the diversion of the Gulf Stream from its present course, and, in addition, Sir Charles supposes there was a great increase in the height and quantity of land round the North Pole.

In his remarks on the existence of man in post-glacial times, Sir Charles added but little to that with which the students of his work on the "Antiquity of Man" are familiar. He recognises the bronze age preceding the Roman invasion of Switzerland, contemporaneous with the Swiss lake dwellings. Prior to that was the stone age of the Danish kitchen middings; still earlier was what M. Lartet calls the "reindeer period" of the South of France, when probably the climate was colder than at present; and still earlier existed man, the congener of the mammoth, whose rude implements of offence and defence are found in the Abbeville deposits. All the readers of Sir Charles's late work know what enormous draughts he makes upon time in his speculations; and the following quotation will show that at present he is by no means disposed to lessen his demands :—

"When speculations on the long series of events which occurred in the glacial and post-glacial periods are indulged in, the imagination is apt to take alarm at the immensity of the time required to interpret the monuments of these ages, all referable to the era of existing species. In order to abridge the number of centuries which would otherwise be indispens-

able, a disposition is shown by many to magnify the rate of change in prehistoric times by investing the causes which have modified the animate and inanimate world with extraordinary and excessive energy. It is related of a great Irish orator of our day that when he was about to contribute somewhat parsimoniously towards a public charity he was persuaded by a friend to make a more liberal donation. In doing so he apologised for his first apparent want of generosity by saying that his early life had been a constant struggle with scanty means, and that 'they who are born to affluence cannot easily imagine how long a time it takes to get the chill of poverty out of one's bones.' In like manner, we of the living generation, when called upon to make grants of thousands of centuries in order to explain the events of what is called the modern period, shrink naturally at first from making what seems so lavish an expenditure of past time. Throughout our early education we have been accustomed to such strict economy in all that relates to the chronology of the earth and its inhabitants in remote ages, so fettered have we been by old traditional beliefs, that even when our reason is convinced, and we are persuaded that we ought to make more liberal grants of time to the geologist, we feel how hard it is 'to get the chill of poverty out of our bones.' "

ARMY MEDICAL.

We are glad to perceive, by a circular memorandum recently issued from the Horse Guards, that another concession has been made to the officers of the Army Medical Department. When our readers have perused what follows they will not fail to perceive one of the ridiculous pieces of injustice under which the members of that department have been labouring.

His Royal Highness the Field Marshal Commanding-in-Chief approves of the removal of all the third Assistant-Surgeons from Infantry regiments in India for the purpose of attaching them to the brigades of Artillery or the Medical staff in that country. In the first instance the Medical officers are not to be called upon to pay a fresh entrance subscription to the mess and band, and in the latter (removal to the staff) those sums which Assistant-Surgeons have paid to the regiments from which they are removed are to be returned to them, in the event of their removal being within eighteen months. His Royal Highness has also directed that *when a Medical officer has been transferred from one regiment to another, for the good and convenience of the service, he shall be exempted from any entrance mess and band contribution to the regiment which he is ordered to join.*

What surprises us is, that it should ever have been otherwise. It was surely a manifest and glaring absurdity that a man should be taken from a regiment without his consent, transferred to another regiment, or placed upon the staff, and, in addition to the great loss and discomfort necessarily arising from the exchange, that he should be again subjected to the grave pecuniary loss of two months' pay to the mess and band.

If the authorities be wise they will yield the citadel at once, and allay all the existing grievous irritation, and remove the present unpopularity of the department, instead of ceding here and there an outwork, as these are wrung from them by the sheer necessities of their position.

While we have no sympathy with the men who would merge *everything* in a question of military rank—those men who would have such prefixes as captain, major, colonel, and so on, to their Professional designation of Surgeon—we still recognise some very obvious and very weighty grievances, for which we have all along contended; and unless these be redressed the army will never obtain a good class of young Medical recruits from without, nor possess a contented body of men within her Medical service. That three of the many points for which we have striven have had their foundation in truth, common sense, and justice, we now know, for the best of all reasons, that these have been yielded by the Horse Guards. Pecuniary liabilities in passing recruits, the branding of soldiers, and that with which we commenced this article have been altered and modified. The primary grievances were:—

1. Want of faith in abrogating, altering, and amending the Royal Warrant of 1858, rendering the position of Medical officers unstable and uncertain.

The only effectual remedy by which the authorities can efface the mischief they have done is the publication of a Warrant which shall express itself clearly and be honestly acted up to. The social position which a man will hold in a regiment must, under any circumstances, greatly depend upon himself. All that ought to be required, or can be done, should be that the military position assigned be fairly recognised. By every principle of justice and fairness, the relative rank ought to fix the position of a Medical officer at his mess. Let a mess be termed a parade, and give the whole voice and power thereat to the combatant, to the exclusion of the Medical officer, and the daily dinner may be made a source of much annoyance and indignity to the latter. We are assured that this is the case in some Infantry regiments. In everything implying military command *of any sort or kind*, a Medical officer desires to have nothing whatever to do; but, for the benefit of the service itself, he should take his place, according to seniority, at his *mess* and on boards about *sanitary matters* or questions directly bearing on the *health* of the troops. We do not desire *one atom more than this.*

2. The disproportion between Assistant-Surgeons and Surgeons in numbers requires attention. Query: Would it not be well to do away with the term *Assistant-Surgeon*?

3. Some increased advantages in pay, etc., to overcome the dead level prospect of an Assistant-Surgeon remaining in that rank half his official lifetime. Surgeons ought certainly to have better remuneration.

4. Earlier retirement—say at twenty years—on such an allowance, at any rate, as might open the way to a man who then desired to quit the service.

5. Leave of absence to be put upon a fairer footing, similar to that afforded to combatant officers.

6. The abolition of a system of supplementing the services of regular Medical officers, by the introduction of Acting-Assistants who have passed no examination before an Army Board, and who do duty in the United Kingdom only.

7. The allowance of a greater controlling power and free agency to the head of the Medical Department, and to the Medical officer in his own department.

From the Army Medical Department Blue-Book for 1862, just issued, we find,—On the 1st of January there were 983 Medical officers of all ranks on full pay. During the year 49 officers were brought in from half-pay (this affords an index to the pressure on the department), and 51 Assistant-Surgeons entered the service; 17 Medical officers died; 17 *resigned;* 10 retired upon permanent half-pay (7 from ill-health and 3 from other causes); 13 were placed upon temporary half-pay on account of sickness; and the services of 4 were dispensed with.

From the return of Medical officers corrected to 31st of March last we gather that there are 7 Inspectors-General of Hospitals; 27 Deputy Inspectors, and 1 with local rank of the same; 92 Surgeons-Major; 242 Surgeons, and upwards of 600 Assistant-Surgeons. There were 19 promotions to the rank of Surgeon for the year, from April to March, 1864. Supposing the annual rate of promotion to be at this rate, an Assistant-Surgeon of ten years' service will remain such for five years more. When promotion will come (at this rate) for an Assistant-Surgeon now entering may be roughly calculated by dividing 600 by 20. Surely there is a very great disproportion between the numbers of Surgeons and Assistant-Surgeons!

THE WEEK.

MEDICAL OFFICERS IN THE NEW ZEALAND WAR.

The late despatch of Sir Duncan Cameron, K.C.B., the Commander of H.M. forces in New Zealand, again bears testimony to the gallant conduct of the Medical staff. In reference to the late engagement at Te Ranga, Colonel Greer, writing officially to the General, says:—

"Surgeon-Major Best, 68th Light Infantry, principal

Medical officer, performed his duty assiduously under fire, paying the greatest attention and care to the wounded. I can say the same of Assistant-Surgeons Henry, 43rd; Applin, 68th; and O'Connell, staff,—the former was particularly brought to my notice by Major Synge, commanding 43rd Light Infantry."

THE DEATH OF CAPTAIN SPEKE.

The deplorable accident which led to the death of the gallant discoverer of the source of the Nile has been so universally deplored that it would be superfluous for us to offer even a passing tribute to his memory. We would only call attention to the circumstance that although, according to the testimony of Mr. Snow, of Box, reported in the *Times* of September 17, the ball "had passed through the lungs and divided *all the large blood-vessels near the heart*," poor Speke was able to speak, and remained sensible for a short period after he was attended by his companion in shooting, Mr. Fuller. He soon became insensible, but lived for about a quarter of an hour. If, as Mr. Snow's evidence appears to imply, the aorta and pulmonary artery were both, or either of them, divided, it would seem to be almost a miracle that death was not instantaneous.

THE TITLE OF SURGEON.

Two cases came before the police magistrates on Wednesday, involving the right of unqualified persons to prefix the title of Surgeon to the designations of Chiropodist and Dentist. The clause under which the offenders were prosecuted is the 40th of the Medical Act. It enacts that, "Any person who shall wilfully and falsely pretend to be or take or use the name or title of a Physician, Doctor of Medicine, Licentiate in Medicine and Surgery, Bachelor of Medicine, Surgeon, General Practitioner, or Apothecary, or any name, title, *addition*, or description, implying that he is registered under this Act, or that he is recognised by law as a Physician, or Surgeon, or Licentiate in Medicine and Surgery, or a Practitioner in Medicine, or an Apothecary, shall, upon a summary conviction for any such offence, pay a sum not exceeding twenty pounds." We should have thought this clause explicit enough and comprehensive enough to have insured conviction in any clear case. It would appear, however, that Mr. Paget, of the Thames Police Court, is of a different opinion; at least, he relies upon a contrary decision in the Court of Common Pleas. As it is, it does not appear improbable that the worst offender—a man who styles himself Surgeon, Dentist, and Chemist, will be allowed to go scot-free, whilst the other, who styles himself "Surgeon-Chiropodist," but whom, we imagine, no one would credit with being anything more than a corn-cutter, pure and simple, has been convicted in the full penalty by Mr. Tyrwhitt, and intends seeking redress from a Superior Court. The following is a report of the two cases:—

"Thames.—Mr. Fentiman, a chemist, druggist, and medicine vendor, of No. 2, Upper East Smithfield, near the Royal Mint, appeared to answer a summons taken out by Dr. Wills, a registered Medical Practitioner, of No. 22, Upper East Smithfield, which charged the defendant with falsely pretending to be a Surgeon.

"Mr. Butler Rigby, a barrister, instructed by Mr. Robertson, solicitor, opened the case for the prosecution, and said this was a case under an Act to Regulate the Qualifications of Practitioners in Medicine and Surgery. Dr. Wills had purchased a practice at a considerable expense, and was a properly qualified Practitioner. The name of Dr. Wills was in the *Medical Register*. The complainant's practice had been greatly interfered with by the defendant, whose bills were given away opposite to, and near the complainant's surgery, and had even been put into the hands of his patients. The defendant, who was not a regularly qualified Medical Practitioner, called himself a Surgeon in his shop bills and advertisements, which would be produced. He had only in addition to put in the *Medical Register* for the present year, in which the defendant's name did not appear, and the case was made out.

"The *Register* was put in and received as evidence, and Mr. Henry Carver, a commission agent, said he went to Mr. Fentiman's shop on the 15th and purchased twopennyworth of sweet nitre and threepennyworth of rhubarb. The defendant gave him a printed bill, in which he was described as 'Mr. Fentiman, Surgeon, Dentist, and Chemist, No. 2, Upper East Smithfield, next the Royal Mint, Tower-hill.'

"The defendant, in reply to the charge, said if he had done wrong he was very sorry for it. He was not aware it was wrong to call himself a Surgeon, for he had carried on the practice of the healing art for twenty years.

"Mr. Paget said there was a decision of the Court of Common Pleas in a case of this kind in 1860. That case seemed to run on all fours with this, or nearly so. The Court of Common Pleas on the facts decided there were no grounds to sustain a conviction. A man called himself a Surgeon, and he was not registered. It was the same here. He did not think he should be justified in convicting, and must dismiss the case.

"Mr. Butler Rigby asked the magistrate to adjourn the case. He believed there had been convictions which had not been quashed. This was a matter of great importance to the complainant, whose patients had been misled.

"Mr. Paget thought he should have convicted the defendant if he had not seen the decision of the Court of Common Pleas. He did not see the utility of postponing his decision when the case seemed so very clear. He would adjourn ths summons for a week, and if he then heard no more of the case, he should mark it dismissed.

"Marlborough-street.—Mr. Francis Bearnard, Surgeon-Chiropodist to the Royal Family, No. 59, Regent-street, again appeared to answer a summons for using the word 'Surgeon' on his door.

"Mr. W. Tilley, of Beaconsfield, Bucks, representing the Medical Council of Education and Registration, appeared in support of the summons; and Mr. Lewis, jun., of Ely-place, appeared for Mr. Bearnard.

"On a previous occasion it was proved on one side, and admitted on the other, that the words 'Surgeon-Chiropodist' were on the defendant's door-plate; that the defendant was not a Surgeon in England, nor was he registered as one of the Medical Profession.

"Mr. Tyrwhitt said on Wednesday: I have considered this case, and it appears to me that 'Surgeon,' though prefixed to 'Chiropodist,' cannot be treated as mere surplusage, but must have a meaning. That meaning must be measured, not in the narrow sense in which knowing Londoners, experienced in vain pretension, and in the steps of Medical rank, might take it, but by the general acceptation which the great body of mankind, passing the defendant's door-plate, would ascribe to the words used there. I think, on the whole, that these words would convey to them that a Surgeon, duly qualified and registered as such, practised at the house in question as a Chiropodist. Taken to be such a Surgeon, he would command more confidence with those who sought his aid as a Chiropodist; and not only that, but he might naturally be consulted by them in Surgical matters beyond the mere treatment of corns. We must allow something for the craving after small titles which is so widely spread at present. The corn-cutter is restless until he writes 'chiropodist,' and next, from fear of so much Greek not being understood, dubs himself Surgeon at all hazards. On the whole, if the defendant will remove from his door-plate and cards the word 'Surgeon,' I might consider as to mitigating the penalty, which is £20, and in that hope would adjourn my decision till this day week. But if the defendant requests me to grant a case for the opinion of a superior court I will do so. In that case it will be needless to adjourn the case, and I fine him £20.

"Mr. Lewis, jun., said since the last hearing Mr. Bearnard had been to the Medical Council, and the secretary had informed him that they were not initiating the complaint.

"Mr. Tyrwhitt said he had nothing to do with the Medical Council.

"Mr. Lewis, jun., said if Mr. Bearnard took a case to a superior court he had a right to know whether Mr. Tilley was a responsible person. Mr. Bearnard had been called upon by several Medical men, who had expressed their distaste at the proceedings.

"After some consultation between Mr. Lewis and Mr. Bearnard, Mr. Lewis said, with all deference to the judgment just delivered, his client would take a case, and Mr. Bearnard would at once enter into the requisite sureties.

"Mr. Tilley applied for summonses against other persons for infringements of the Medical Act, and they were granted."

MEETING OF THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

SPECIAL MEDICAL REPORT.

BATH, Wednesday Evening.

THE meeting of the British Association for the Advancement of Science has just closed brilliantly. Taking it all in all, a more successful session has never been held, nor has Medical science ever before been more extendedly or scientifically represented. In two of the sections members of the Profession have held the first place—that of President; and both of these—Dr. Farr in the Section of Economic Science and Statistics, and Dr. Edward Smith in the Sub-section of Physiology—have carried out their honourable, but by no means easy, duties with the greatest satisfaction and distinction. As is customary at the meetings of the Association, Physiology was not recognised as one of the great sections: it was merely *permitted* as a part of Section D. *Zoology*. As is customary also, the sub-section, so soon as it was organised, became the super-section in popular favour. Excluding those who are the professed representatives of the general sciences, we may say without boast that no profession sent so many useful men to the parliament of science as did ours. First amongst our representatives we must place, as the lion of the day, Dr. Livingstone, who, taking part in the Geographical, Zoological, and Physiological Sections, has been received everywhere with hearty welcome, and who, when joining in debate, has spoken with a brevity, earnestness, and simplicity that have raised him the higher in the estimation of his brethren. Amongst the other Medical men present were Drs. Hughes Bennett, John Davy, Acland, Turner, Hodgkin, Edwards, Crisp, Symonds, Wm. Budd, Bond, Broome, Carter, Harley, E. Smith, Cobbold, Griersen, Falconer, Farr, Dickson, Freamside, Radcliffe Hall, Heaton, Hayton, Richardson, Junot, Gibb, Ransome, Thurnam, Rolleston, Sir John Richardson, Messrs. Gain, Bartrum, Fowler, Soden, Gore, A. Haviland, C. Brooke, Barrett, and many others, all of whom were more or less active in the debates.

Of the debates themselves we may remark that they were one and all of a more useful, if not more interesting, character than on previous occasions, and that the practical nature of the papers read was the cause why the room of the Section was so steadily filled and so often overcrowded; and in the debates the laymen took a part as active as that taken by Professional men themselves. This day there has been a general meeting of the Section to discuss "The Physiological Aspects of the Sewage Question." Dr. Hughes Bennett opened and closed a most animated debate, and the work of the Section was thus brought to an end for the present year.

The Sections that to our readers would have been the most interesting were the Physiological and the Economic. In the Report which follows we shall therefore confine ourselves to the labours of these Sections, beginning with the Physiological:—

PHYSIOLOGICAL SECTION.

SUB-SECTION D.

The Section met daily (except on Sunday) in the Pump-room, at eleven o'clock, from Thursday, September 15, to Wednesday, the 21st.

THE PRESIDENT'S OPENING ADDRESS.

By Edward Smith, M.D., F.R.S.

The President chose for his address the subject of public dietaries. He adverted to the fact that out of 700 Poor-law dietaries of paupers in workhouses, not two were alike. The condition of the dietary of the army and navy was, until recent years, most deplorable. At the latter end of the last and early part of the present century, scurvy, due to ill-selected food—biscuits which could not be broken, and salt meat that could not be cut—was rife even in our national navy, and inquiries made by Dr. Budd some twenty years ago, and by Dr. Barnes this year, had shown that this disease was still not unfrequent in the fore-cabins of our merchant navy, but it was not found in the master's cabin, nor amongst the well-fed officers, but amongst the ill-fed seamen. The state of the dietary in our prison population was not only less satisfactory than that of our army and navy, but was very unsatisfactory. He referred to several instances in which it had been found requisite to diminish the allowance of food to convicts, and to others in which it had been increased—changes made under the influence of mere public opinion by Medical gentlemen on grounds which were illogical, and without making use of the only plan by which the fitness of the change could be proved—that of scientific inquiry into the condition in which the dietary was to be used; and he suggested that a Government officer should be appointed to make the requisite scientific inquiries. With regard to dietary in Hospitals, an approach to uniformity was possible; but at the present there was a great difference. There was the best reason to believe that the dietary of our private schools and colleges, and charitable institutions for the maintenance and education of the young, had greatly improved; but it was a subject which should demand public attention. There were multitudes of cheap schools in the country in which the sum paid with the pupils was manifestly inadequate to remunerate the proprietors of the schools. A consideration of the dietary of the general community must have regard to two classes at least—viz., the well-fed middle and higher classes and the moderately-fed or ill-fed labouring classes; but time would not permit him to refer to the former further than to offer a few observations on Bantingism. He was not concerned in the Medical question as to whether it was desirable to reduce the bulk of a given individual—a circumstance which must always be left to the Medical man in charge of the case; but he thought it would be an evil to this nation, both bodily and mentally, if the system of reduction were to become at all general; and that, on the contrary, regarding the whole population, we needed to add rather to than take from the weight of the body. Even in the well-fed classes he had seen very serious diminution of both bodily and mental vigour follow the working out of the plan. There was no necessity for the absolute excision of fat and sugar, and the extreme reduction in the quantity of bread, any more than for the great increase in the quantity of meat. The bulk of the body might be reduced simply by lessening the amount of the kinds of food usually taken, and as the reduction was more slowly effected, it was a process attended with less danger to the health. Turning to the question as affecting the labouring classes, he observed that an inquiry of a character unique at least in extent, had just been completed by him for the Government, which would afford a clearer insight than had hitherto been obtained into the dietary of our labouring population. It had been made at the houses of the agricultural labourers in every county in England, in Wales, the west and north of Ireland, and the west and south of Scotland, at the houses of certain town populations, silk and cotton weavers, etc., with all the care and minuteness which science could suggest, the details of which might be found in the Sixth Report of the Medical Officer of the Privy Council. The coarse kinds of bread which were in ordinary use by our forefathers, even to the early part of the present century, were now very rarely eaten. Barley bread was still eaten in the houses of labourers in South Wales, and in the farm-houses of North and South Wales, and Anglesea; also in Northumberland and Cornwall, and Devon, and in the southern parts of Scotland; but except in certain poor districts in South Wales it was not now used as the principal member of the class of breadstuff. Rye bread was nowhere eaten alone. Oatmeal was used by 20 per cent. of the farm labourers in England. Indian corn was used exclusively in the South of Ireland. Peameal was never eaten

alone as a bread, but in the north of Scotland it was sometimes added to oatmeal for that purpose. Rice was used by about 58 per cent. of the population, but never in the place of bread as a breadstuff. The average weekly dietary of farm labourers was—for each adult and child, 13¼ lb. of breadstuff, 6½ oz. of sugar, 5 oz. of fat, 14 oz. of meat, 52 oz. of milk, 5 oz. of cheese, and ½ oz. of tea; whilst in-door labourers obtained 9½ lb. of breadstuff, 8 oz. of sugar, 5 oz. of fat, 13½ oz. of meat, 18 oz. of milk, and ¾ oz. of tea, for each adult weekly. In reference to public institutions he was of opinion that there should be a Government officer of the highest repute upon dietary questions, to whom such questions should be referred by the Government; and that in the dietaries of the poor the wives and children are ill fed, much more so than the husbands; that a large part of the infant mortality and the deaths at puberty from consumption is due to a deficient supply of milk and of other good food, and the almost exclusive use of slops. He also insisted that a man's first duty was to provide sufficient nourishment for his family, even if it were only dry bread, and that until this had been effected nothing should be spent merely to please the taste; and in order to turn the labourer's overtime to profitable account it was very desirable that he should have the opportunity of growing plenty of potatoes. Dr. Smith concluded by reference to the present state of the question considered as a science, and pointed out what science had done, and what were still the most important defects.

On the motion of Professor Acland it was unanimously resolved that steps be taken to bring the subject under the notice of Government.

SPECIAL REPORTS.(a)

Report on Muscular Irritability.

By M. Foster, M.D., Huntingdon.

The author, referring to the experiments with Urari, came to the conclusion that these were inconclusive, because it is not proved that the ultimate nerve branches are affected like the penultimate. Eckhard's anelectronic experiment is inconclusive because irritability is only lowered, not entirely suspended. The series of experiments with chemical stimuli by Wittich and Kühne are inconclusive for the same reason. But the fact that chemical stimulation will take place during the anelectronic effect of the constant current shows either that the contractile tissue is itself irritable or that no confidence can be placed on Eckhard's arguments. The author thought that, on the whole, the evidence is decidedly in favour of muscular irritability.

The experiments and observations of Kühne show that the ideo-muscular contractions of Schiff are in reality ordinary contractions in an abortive sense, and not a special form of contraction, and that the observations offer connecting links between the oscillatory contractions witnessed by Mr. Bowman, and shown by him to be clearly not due to nervous action, and so afford proof that in a muscular contraction there are two things to be considered—the setting of certain molecules in movement, and the communication of that movement from these molecules in greater or lesser rapidity to all the rest of the fibre; and since the first movement may commence anywhere, the whole fibre must be irritable.

Discussion.

In the discussion that followed,

Dr. Richardson said he regretted that the author had not taken a wider view of the question, and had not recognised the many other workers in the same field of inquiry. Dr. Richardson then related various experiments on this subject. As regards the production of muscular motion by the injection of warm water into the muscular tissue, the phenomenon observed was, he said, due simply to the mere distribution of force through the capillary structure of muscle; it remained only so long as force was being distributed; it was, in fact, precisely analogous to the action of the force distributed through the nervous filaments in normal muscular action. Referring to the effect of plunging muscular fibre into glycerine and other solutions, Dr. Richardson said he had observed that the contraction thus induced was due to motion brought about by osmotic action; so long as the water of muscular fibre was going over in current to a solution by which it was surrounded, there was motion being communicated to the muscular molecules. The speaker also explained that, by galvanisation of muscle with the induction current, the muscles of an animal recently dead might be reduced to inertia muscle by muscle. Lastly, he described an experiment in which the irritability of muscle was intensified and prolonged by carrying large numbers of fine metal conductors through muscles, and connecting them with the electrodes of the galvanic pile.

Mr. Brooke also thought that the report was imperfect. He explained the theory of Dr. Radcliffe on muscular motion which ought to have been noticed, and also the researches of Dr. Lionel Beale in respect to the termination of nerve fibres in muscles.

Mr. Turner concurred, and remarked that the researches of Mr. Lister had been omitted.

The President said that the report would be considered by the committee, and perhaps submitted again to the author.

Report on the Physiological Action of the Nitrite of Amyl.

By B. W. Richardson, M.A., M.D.

The report sprang out of a paper read by him at the last meeting of the Association at Newcastle. He first showed the nitrite of amyl, and described it as an amber-coloured fluid, smelling and tasting like essence of pears. He entered fully into its other physical properties, dwelling specially on the facts that it arrested oxidation and prevented the process of decomposition in animal and vegetable substances.

The author classified his numerous experiments in twelve series. In the first series he dwelt on the antiseptic influence of the vapour of the nitrite of amyl on flowers. In the second series he described the same influence in regard to dead animal matters. In the third series the same influence in respect to blood and other animal fluids. These, one and all, were preserved by the nitrite, but were changed in colour.

The vapour as a preservative acts by catalysis, that is to say, it is not itself changed. The fourth series of experiments related to the effects of the nitrite on man and living animals when administered to them through the skin. The fifth series related to administration by the mouth. The sixth to administration by the lungs (inhalation); and the seventh to administration by inoculation. This series of experiments was very elaborate, and disclosed facts of a most interesting and novel character. The eighth series was devoted to minute investigations as to the effect of the substance on the capillary system, by observations on the web of the frog's foot; and the ninth series embraced researches on the influence exerted on the blood. The following is the author's summary of the effects of nitrite of amyl. 1. It is absorbed by the body, however it may be introduced into the body—whether by the skin, the stomach, the lungs, or by inoculation. 2. After its absorption, its effects are immediately seen on the heart and circulation. There is, in the first place, violent action of the heart, with dilatation of the capillaries, followed by diminished, but not extinguished, power of the heart and contraction of the extreme vessels. As an excitant of vascular action, the nitrite of amyl may be considered the most powerful agent as yet discovered by the physiologist. 3. In animals whose bodies admit of its removal spontaneously, and whose circulatory and respiratory systems are simple, such as frogs, the nitrite suspends animation; and when the animals are placed under favourable circumstances for the process of recovery, they may recover. There is no other known substance that suspends animation in frogs for so long a period of time. On warm-blood animals, which are clothed in a skin less permeable, and in whose bodies the circulatory and respiratory systems are more complicated, the nitrite cannot actually stop the movements of respiration and circulation without destroying life. But even in these animals it can reduce the forms of respiration and circulation so extremely, that a condition precisely analogous to what is known as *trance* or *catalepsy* in the human subject can be induced by it, and sustained for many hours. 4. The nitrite of amyl is not an anæsthetic. By it consciousness is never destroyed, unless that approach towards inertia vulgarly called death is produced. 5. The effects of the nitrite on the organism is directed to the motive force which it first wildly excites and then subdues. 6. The *modus operandi* of the nitrite appears to be by arresting the process of oxidation in the tissues. 7. Physically, the nitrite holds a place between the volatile bodies, such as chloroform and ether, and the solid bodies, such as opium and woorali; hence its effects are less evanescent than those arising from the volatile substances, and less

(a) These Reports are drawn up by request of the Association through the Committee of Recommendations.

destructive than those produced by the solid substances. In this lies the secret of the peculiar action of the nitrite.

The points dwelt upon by the author up to this time which excited most attention, were those having reference to the peculiar power of the nitrite of amyl in suspending the vital processes. In the succeeding parts he described the pathological or diseased conditions produced by it; its effects as compared with other compounds of amyl, and numerous other substances; and the reason why it should so powerfully influence the circulation. He then put the question—Whether, with the facts now known, we ought dogmatically to deny the possibility of placing the body in such a condition that it may for some hours or even days assume the appearances of death? In catalepsy or trance we see such an appearance of death, in a disease; and we have heard of the famous experiment of the Fakirs of India, in which they seem to hold life for a time in abeyance. Dr. Richardson thought that in catalepsy there was formed in the body a substance which acted like the nitrite of amyl, arresting the action of the heart and respiratory system so greatly that death seemed to be present. He thought also it was possible that the Fakirs possessed a substance derived from the vegetable world that had the property of producing the same effects in a marked degree. and that "In this borrowed likeness of shrunk death" the facts of the phenomena were presented and explained. In conclusion, the author discussed the question of the value of the nitrite of amyl as a remedy in the treatment of disease. He had not had time practically to try this point, but he suggested that the substance would probably be found of service in cases of sudden failure of the heart. He also believed it would prove serviceable in the treatment of tetanus, that in that terrible disorder it would by its paralysing action on the voluntary muscles check the tetanic spasms, and by enabling the patient to live through the acute attack would give time for the system to become relieved of the primary malady. As there was no known remedy for tetanus, Dr. Richardson urged the trial of the nitrite of amyl strongly, and entered minutely into the matters of dose and mode of administration. He finished by stating that the whole of the amyl series required to be investigated physiologically, and that the inquiry promised to be attended with the most important results.

This paper was warmly applauded.

PAPERS AND DISCUSSIONS.

Observations on the Measurements of the Head and Weight of the Brain in 696 Cases of Insanity.

By R. Boyd, M.D., Wells.

The cases referred to had been observed by Dr. Boyd at the Somerset County Asylum. He said that the tables of the weights of the human body and internal organs at various ages in the sane and insane of both sexes by the author have appeared in the *Philosophical Transactions*, 1861. The tables now laid before the members of the British Association relate to the insane only, and include a greater number of cases. The forms of the disorders are given under eight heads at ages in decennial periods. The average measurements and weights of the body and cerebro-spinal organs are also given, and the numbers from which those averages are taken. The first table shows the average measurements of the head at decennial periods of life under the different specified forms of insanity in 403 males and 293 females examined in the Somerset County Lunatic Asylum. The specified forms of insanity are mania, dementia, melancholia, monomania, general paralysis, epilepsy, epilepsy and idiocy, idiocy. Of these mania is the most common: one-third of the females, and more than one-fourth of the males, are classed under this head; it includes twelve cases of recurrent and seven of puerperal mania. Dementia, which includes cases of fatuity in both sexes, altogether amount to 16 per cent. in males and 20 per cent. in females. Melancholia is much more frequent in females than in males; the proportion is 9 per cent. in males and 18 in females. Monomania embraces only a small number—3·9 per cent. in males and 3·7 per cent. in females. General paralysis is very frequent in males, but not nearly so much so in females; it is combined with various forms of mental disorder; but these are not distinguished in the tables. 25·6 per cent. males come under this head and 7 per cent. females. Epilepsy is also combined with various forms of insanity; but these, as in the case of general paralysis, are omitted. The numbers are 14·6 per cent. males and 14 per cent. females. The two remaining forms include a small portion of these cases. Epilepsy, with idiocy, 3·2 per cent. males and 2·2 per cent. females; idiocy, 2·2 per cent. of males and females. The periods of life are also under eight different heads in the tables. In the first (under 20 years) the affections of children, idiocy and epilepsy, 16 in males and 3 in females; and 2 of melancholia in females include the whole mortality at that period. In the second, from 20 to 30 years, the percentage is 12 for males and 12·5 for females, the largest proportion being still of epileptics and idiots. In the third period, from 30 to 40 years, mania prevails, especially amongst females, and general paralysis in males. In this and in the next period, from 40 to 50, are included all the forms of insanity. In the fifth period, from 50 to 60, the number of cases of epilepsy and idiocy are less. From 60 to 70, the relative numbers were greater of females—12 per cent. males and 17·1 per cent. females. In the seventh period, from 70 to 80, no case of general paralysis occurred. The proportions of each sex were nearly equal in the last period, upwards of 80. The cases were principally dementia and fatuity. The three measurements of the head, as shown in the first table, are in inches and decimal parts of an inch. Taking the whole of the cases, at all ages and in all forms of the disorder, the average circumference from the centre above the nose and superciliary ridges over the great tuberosity of the occipital bone behind round to the same point in front is, in males 21·9 and in females 21·1 inches; the antero-posterior measurement from above the nose to the great tuberosity of the occipital bone is 12·7 inches in males and 12·5 inches in females; the transverse measurement from one external auditory meatus over the head to the other is 12·6 in males and 12·3 inches in females. The measurements all greater in males than females. In idiocy the measurements are below the average in both sexes, also in epilepsy combined with idiocy in males. The measurements are slightly below the average in general paralysis. In melancholia and epilepsy the measurements are greatest; after 50 there is a decrease. The circumference of the head denuded of the scalp is one inch less, and each of the other measurements half an inch less. The second table shows the average weight of the several parts of the brain in ounces avoirdupois and decimal parts of an ounce at decennial periods in the different forms of insanity. The weight of the several parts of the brain is more in males than females, and, as a general rule, the left cerebral hemisphere is larger than the right. The average weight of the right cerebral hemisphere in the males 19·89 and the left 19·96; in the females the average weight of the right cerebral hemisphere 18·53 and the left 18·61. The greatest inequalities in the hemispheres are observed in epileptics and idiots. The maximum, minimum, and average weight of each cerebral hemisphere in ounces avoirdupois in the eight different forms of insanity in males and females at all ages is shown in a short table. The average weight of the other portions of the brain, the cerebellum, pons and medulla oblongata of the encephalon, and also of the spinal cord, in males and females at all ages in the different forms of insanity is also thrown in another table. The average weight of the encephalon was greatest in mania in males, and in epilepsy combined with idiocy in females; but these cases were few—only seven in number. The average weight of the encephalon was least in idiocy in both males and females. The average measurement of the head was also least in idiocy in both sexes, and greatest in dementia and epilepsy in males, and in epilepsy, and idiocy, and general paralysis in females. The average weight of the encephalon in the whole number was 3¼ ounces more in males than in females, the average circumference of the head, as already stated, being eight-tenths, the antero-posterior two-tenths, and the transverse measurement three-tenths of an inch more in males than in females. The relative proportion of admissions into the Somersetshire asylum has been 55·5 per cent. males and 48·5 per cent. females. The relative mortality 58 males and 42 females.

On the Origin and Arrangement of the Superficial Branches of the Lymph-Vessels in the Liver of Man and of the Pig.

By T. Carter, M.D., Leamington.

The principal object of this paper was to show that there is a direct communication between the capillaries and the finest lymphatic vessels in the human liver, and in the liver of the pig. The author stated that in six instances he had been able, by throwing into the portal vein a transparent blue injection,

and into the hepatic vein a red one, to fill and display the lymphatics covering the surface of the organ, there being nothing like ordinary extravasation anywhere visible to account for the phenomenon. In certain parts of the pig's liver the larger lymphatic trunks which surround the lobules were observed to be filled with blue injection, while the capillaries and finer lymphatics upon the surface of the lobules were filled with the red—a circumstance which proves that the commencing lymphatics derived their supply of fluid from the capillaries. In favourable sections, moreover, Dr. Carter said that exceedingly minute injected processes might be seen coming off from the hepatic capillaries and uniting with others to form a primary lymphatic radicle. He had also made similar observations in sections taken from the human liver.

In the second part of the paper was described the peculiar relation which exists between the superficial branches of the hepatic artery and the lymphatics. In the pig each branch of this vessel is accompanied by two lymphatic trunks which run parallel and in contact with it, and are, as it were, braced together here and there by short transverse branches which pass both above and below. In this way the hepatic artery is more or less ensheathed in lymphatics. In the human subject this arrangement reaches a much higher degree of development, the hepatic artery being, in fact, enclosed in a fenestrated lymphatic tube. The physiological import of this arrangement is, that with each expansion of the artery the lymphatics are compressed, and their contents—in consequence of the valvular mechanism—propelled towards the heart. The author described the pulsations of the heart as having a two-fold influence on the circulation of the lymph—directly by the pressure it exercises on the orifices of the lymphatics in the parietes of the blood-vessels, and indirectly by the pumping action which it exerts on the larger lymphatic trunks through the instrumentality of the hepatic artery.

(Coloured drawings illustrative of this paper were exhibited, and at a subsequent meeting the preparations from which the drawings were made.)

On the Presence of Valves in the Abdominal Veins.

By E. Crisp, M.D., London.

All physiologists, Dr. Crisp said, up to the time of his discovery of valves in the splenic vein of the giraffe in 1852, had denied the existence of these valves. Kolliker, in his article on the spleen, in Todd's Cyclopædia, says that the abdominal veins contain no valves, and Dr. Carpenter had made the same assertion. The physiological import of these valves in the abdominal veins of many animals was most important, and it was strange, considering their abundance, that they had not before been discovered. Dr. Crisp had not only in 1852 described these valves, but in his book on the use of the spleen, and in other places, he had pointed out a valvular arrangement in the abdominal veins of man and the lower animals; although five years later, 1858, a paper was read at this Association by Dr. McDonald on the valvular arrangement of the veins, in which (judging from the abstract in the proceedings) Dr. Crisp's name was not alluded to. A diagram was shown of one of the mesenteric veins of the reindeer, which contained forty-two pairs of valves; of the left renal vein of the kylghan, which contained ten valves, two single and four pairs; of the renal vein of the Sondial ox (*Bos sondsacus*), from Pegu, the only specimen brought to Europe, in the left renal vein of which there were two pair of valves. Unlike our ox, this animal had a non-lobated kidney. Dr. Crisp had found valves in the abdominal veins, and the following animals, but in many of his dissections he had omitted to look for them, so that the proportion of animals possessing this beautiful mechanism in the abdominal veins would be much greater. *Carnaria.*—Mastiff, brown bear. *Marsupiata.*—Great kangaroo. *Pachydermata.*—Hog, wild hog of Europe and India, Japanese hog, wart hogs, Red River hog, Horse, zebra, ass, elephant, tapir. *Ruminantia.*—Giraffe, eland, addax, isabelline antelope, four-horned antelope, Indian antelope, gazella vera, rein deer, Mexican deer, Malacca deer, Sambut deer, Rocky Mountain deer, Virginian deer, elk, alpacca, sheep (European, Chinese, Cape), European ox, zebu, and bison. In the dog these valves were not generally found in the stomach veins; but the animal in question was very large, and had, from feeding on vegetable food, its stomach enormously increased in size, a fact that threw much light, it was thought, upon the mode of formation of these valves. Dr. Crisp had seen the same condition of stomach in man from long-continued over-feeding.

On the Size of the Blood-corpuscles in Relation to the Size of the Animal, its Organisation and Powers of Endurance.

(*By the same Author.*)

The object of this paper was to show that the opinion generally entertained, that the largest animals in the same family had the largest blood-globules, was erroneous in many instances. Examples were given among the quadrumana (apes and monkeys) of exceptions to this supposed law: thus, the little Marmoset and Silky Tamarm had corpuscles as large as those of the larger monkeys. Among the Cheiroptera (bats), similar examples were given. In the *carnaria*, the common cat had a corpuscle as large as that of the lion or tiger. In the rodents, the little harvest mouse had as large a blood-disc as the common rat or gigantic rat. In the other orders the great kangaroo, tree kangaroo, giraffe, tapirs, hogs, ass, horse, and many others were advanced as disproving the correctness of this assumed law; and it was a curious fact that all the mammals with large blood-corpuscles might be called aberrant, such as the elephant, cassybara, and great ant-eater. Among birds, the ducks, swans, geese, and many others, afforded exceptions, and the reptiles were still more prolific in examples; thus, the little slow-worm, as Dr. Crisp had shown in 1854, had corpuscles as large as those of the huge Python, weighing 100 lbs. In fishes, the blood-discs of the little gudgeon were as large as those of the big bream. The mackarel's blood-corpuscle was as large as that of the huge tanny, and that of the small trout equalled in size the blood-corpuscles of the salmon. In answering the question whether the size of the corpuscles was smaller in animals of higher organisation and greater powers of endurance, the orang, chimpanzee, and many of the smaller monkeys, race-horse, cart-horse, greyhound, pug-dog, hare, rabbit, goat, otter, fox, sheep, hog, rapacious birds, slow-worm, python, sharks, and others were adduced to show that this opinion was incorrect. As regards the size of the blood-corpuscle, it was not to be wondered at that a large animal had a large blood-corpuscle, but it was surprising that one little harvest mouse should have a blood-disc as large as that of the giraffe, and that the blood-disc of the tiny marmoset monkey, weighing 9 ozs., should equal in diameter that of the large baboon, exceeding the weight of 60 lbs.! The blood-corpuscles of 180 animals (drawn to scale) were exhibited.

Report of Experiments respecting the Development and Migration of the Entozoa.

By T. Spencer Cobbold, M.D., F.R.S., London.

Dr. Cobbold gave the results of an extensive series of experiments, sanctioned by the General Committee, at the Cambridge Meeting in 1862. After offering some apology in favour of the experimental method of research, the author proceeded to speak in detail of the facts which his curious investigations had elicited. The parasites employed were either flukes, tapeworms, round worms, or their larvæ, whilst the experimental animals invited to partake of these dainties were dogs, horses, goats, monkeys, rabbits, frogs, fishes, and even cockroaches. As an illustration of the importance of ascertaining the mode of checking parasitic diseases, Dr. Cobbold reminded the audience that the larvæ of the smallest tapeworm yet known were the sole cause of the fatal echinococcus malady of Iceland, and he further added, that they were the cause of numerous deaths, frequently sudden, every year in England. By the data supplied by these experiments, science hoped to be able to demonstrate the possibility of checking, if not of altogether destroying, this echinococcus endemic, and other similar parasitic diseases. The experiments were not confined to entozoa infesting the human body, but embraced the employment of a great variety of entozoa derived from the animals above mentioned, and also from the sheep, seal, porpoise, etc.

Dr. Jeffreys mentioned that it was generally received as a fact that sheep on the coast generally got the disease termed the flukes in consequence of eating a small amphibious snail belonging to the air-breathing class, very common in marshy places on the banks of streams. It was supposed that the sheep, particularly in hot weather, eat the snails when they went down to drink or cool themselves in the water, they being attached to the grass upon which they afterwards fed. He believed this fact was generally believed, and had received the authority of Dr. Leichardt; it was mentioned in his work on the mollusca of France.

Discussion.

Dr. Crisp expressed some doubts whether it was the con-

sumption of those small mollusca which occasioned the disease in sheep; and he disagreed with Dr. Cobbold in respect to the great mortality occasioned by the attacks of echinococci, having himself seen the flesh of porpoises and other animals swarming with these parasites, and yet the animals were as fat, and yielded as much oil of a good quality, as any others which he had ever seen. He did not, however, mean to say that sometimes they had not occasioned death, and he narrated one instance in which he had seen an antelope in the Zoological Gardens, Regent's-park, suddenly seized with convulsions, and fall down dead. He immediately told the keeper that its death must be caused by an echinococcus on the brain, and on examination of the brain it was found that there was a large cyst in it, in which were several of these parasites.

Temperature of the Sexes.

By John Davy, M.D., F.R.S.

Dr. Davy, in a short paper, gave the results of some experiments he had made as to the relative temperature of the two sexes. The theory of Aristotle, that a man possessed more warmth than a woman, had been disputed; and it had been held by some, as the result of modern research, that the temperature of women was slightly superior to that of men. Notwithstanding this, however, from such observations as he had been able to make, he considered the early opinion the more correct. Taking the average, it appeared that the temperature of males and females was as 10·58 to 10·13. He had more recently made some additional observations, using a thermometer of great delicacy, and taking for the purpose of his experiments six persons, three men and three women, all in good health. The result was that the temperature in the case of the men varied between 99 and 99½, that of the women was between 97¾ and 98. An examination of other animals gave still a somewhat higher temperature for the male than the female, six fowls showing the proportion of 108·33 for the former to 107·79 for the latter.

Discussion.

The President thought that whatever difference of opinion there might be with respect to the accuracy of the author's conclusions, all would agree, he was sure, that if men were more warm-bodied than women, the women were the more warm-hearted. ("Hear, hear," and cheers.)

Dr. Ransom asked whether Dr. Davy had made any experiments as to the power of resisting variation and temperature in the sexes, and whether he had noticed any connection between that and the usual average temperature; if males consumed more carbonic acid, were they able to resist alterations of temperature better than females? No doubt men were more exposed to influence of weather in their various avocations; but, on the other hand, he believed it was a matter of observation that females did not clothe themselves so warmly as men.

Dr. Davy said the probability was that women did not resist cold so well as men, and that the greater the strength and energy, the larger the quantity of blood flowing, the greater would be the power of resistance. Generally speaking, he believed that women suffered more from cold than men, and really required a warmer dress than men. (Hear, hear.)

Dr. Haydon remarked that the conclusion to which Dr. Davy had arrived was only a verification of what *à priori* reasoning would have led to, from the larger quantity of carbonic acid taken by men, and their probable larger consumption of sugar.

The President said it was a matter of fact, and not a theory, that they were dealing with; and if it were true that the amount of heat generated in the case of a man was greater than with a woman, there was a greater expenditure of heat with the male than the female.

On the Various Forms Assumed by the Glottis.

By George Gibb, M.D., London.

The author stated that it had been an accepted axiom that, for the most part, the glottis assumed a triangular form, and this view was taught almost to the present hour. This led him to go into the question of what were the various forms assumed by the glottis, and in what manner did they arise. In solving this question, he briefly considered the relation that subsisted between the true vocal cords and the thyro-arytenoide muscles; and he then made some observations upon, and briefly described the arrangement of, the muscular fibres, especially as lately made out by M. Battaille, which he said had much to do in regulating the form of the glottis. He adopted that author's division of the muscle into three bundles, and approved of the name of Triceps laryngea, which he had given to it. He then entered upon a description of the manner of action of the various fibres, and its influence in giving a form to the glottis. This varied from an isosceles, equilateral, or right-angled triangle, to a lozenge or barrel, circular, oblong, lanceolate, elliptic, pyriform, or arched and linea form. The commonest of these was an isosceles triangle; and a rare form was a right-angled triangle, which he had never met with unless in women, when the larynx is shallow from before backwards. A parallel or oblong glottis he explained and showed how it occurred; he had seen it several times, but necessarily narrow, because the vocal cords, under such circumstances, could not be separated more than one or two lines at their point of origin. A more remarkable form than any of these was the reversal of the triangle, the glottis during the utterance of continous falsetto sounds assuming the shape of a narrow Y, then a narrow V, and then a narrow oblong, before the termination of the experiment. The cause of this, with an illustration, was given. A pear or bulbous shape, like the new form of wine decanter, and an arched form, composed of the narrow segment of a circle, were other forms noticed. He concluded with some observations on the form of the glottis seen in the chest and falsetto registers, and the parts in action.

The Larynx of the Negro.

(*By the same.*)

Dr. G. Gibb read a paper upon the special differences between the larynx of the negro and the white man. After describing the larynx of the latter, he remarked that the essential point of difference between the two consisted in the invariable presence of the cartilages of Wrisberg; the oblique or shelving position of the true vocal cords; and the pendent position of the ventricles of Morgagni. "Any one familiar," said the author, "with the dissection or examination of the larynx in ourselves, cannot but perceive that these peculiarities are not observable unless we will admit the occasional presence of the first in certain windpipes. Now, we may be told by some anatomists that they have commonly seen these Wrisbergian bodies, and that they are not rare, but that sort of evidence counts for very little. These small bodies, the cartilages of Wrisberg, are either very minute and rudimentary, or wholly wanting in the white race, whilst they are large and well developed, and always present in the black or coloured races. It may be mentioned also that I have dissected them in monkeys, in whom, even the smallest species, they are relatively large in comparison to the size of their bodies; and, with the object of attracting attention to them in the quadrumana, I exhibited specimens before the Pathological Society of London, in March, 1861, three and a-half years ago. Those who argue that the black race are inferior to the white, and approach the quadrumana in some of their features, would naturally lay hold of what I have stated to prove the truth of this theory, especially as regards the Wrisbergian cartilages and the position of the ventricles. But I take the opportunity of declaring at once, that whatever views may be entertained by Anthropologists respecting the position in the scale of beings occupied by black and white, they are discarded from this communication."

Discussion.

Mr. Crisp remarked on this paper, that even if Dr. Gibb were right, and these cartilages pointed out existed, it was no proof of the degradation of the negro. Extraordinary statements had been made on this subject. It might be that these particular cartilages were given to the negro, just the same as a black skin was given him, and thus did not imply the least degradation.

Note on the Action of the Bromides of Lithium, Zinc, and Lead.

(*By the same.*)

The paper read by Dr. Gibb was very short. The bromide of lead was described as very useful in the treatment of gout and rheumatism. In small doses, the bromide of lithium is a tonic and diuretic. The bromide of zinc is useful in cases of nervous excitement and exhaustion; and the bromide of lead is useful as a local application in irritable conditions of the mucous membrane.

The Functions of the Liver.

By John Goodman, M.D.

Dr. Goodman was of opinion that the liver acts not simply as a purifier of the blood by the process of excretion, but that it exerted an elective influence on the food, separating the soluble substances, and preparing them for transmission into the circulation after the separation of bile.

On the Occurrence of Indigo in Purulent Discharges.

By William Bird Herapath, M.D., F.R.S., Bristol.

Some time ago I had the pleasure of directing the attention of the British Medical Association to the frequent presence of indigo or of a substance which, by oxidation, became indigo in the urine of patients who suffered from albuminuria either as the result of Bright's disease of the kidney, or as a more scanty morbid product in that form of albuminuria produced as a sequela of an attack of scarlatina, and I brought forward two well marked cases in which this peculiar colouring principle had been found by me in two patients who had been under my professional care. At that time it will be recollected by some of those who are now present, I obtained it in sufficient quantity to be able to exhibit it to the members, and even to demonstrate the crystalline character of the indigotine by preparing specimens of the sublimed crystals, which were very readily exhibited in the microscope upon employing Ross's quarter objective for their examination.

Since this period we have been instructed by Heller, Schunck, Virchow, and others that urine, even in the healthy state, contains a substance from which an indigo blue pigment may be obtained in traces or excessively small quantities; and Kletzinsky has shown us that the urine of the horse and the cow contains a comparatively large quantity of this pigment-forming substance. And whilst the same observer has even discovered that the exhibition of creosote and oil of bitter almonds as medicinal agents appears to have the power of increasing the quantity of indigo obtainable from the urine of the patients who have been under treatment with these substances, it is remarkable, however, that indigo very rarely appears to be eliminated directly from the body in its markedly blue colour; on the contrary, it is thrown off, either in the colourless form or in the shape of indican or uroxanthine, as its name imports, a light yellow substance, which, upon treatment with acids, splits up into three other substances,—two pigments named uroglancine, or indigo blue, and urrhodine, indigo red, whilst a saccharine substance is also separated in notable quantity, so that uroxanthine may be considered as a glucoside, in which indigo blue and indigo red are present, but invisible as colouring matters, but capable of being produced by the action of fermentation, oxidation, or the destructive action of some of the mineral acids, as hydrochloric and sulphuric acids.

It will also, perhaps, be recollected by the members that even in the indigo plant the colouring material does not exist ready formed, but that it requires a peculiar process of fermentation and oxidation to be carried on in the expressed juices of the plant during a considerable period in order to obtain this valuable blue in any quantity. The occurrence of the vegetable product indigo in the fluids eliminated from the human body was considered an instance of the deterioration of the animal elements as remarkable as the presence of grape sugar or glucose in the blood and urine of diabetic patients, or the extraction of dextrine or hepatine from the liver or the discovery of amyloid substance in the tissues of diseased organs. But it is now known that there are numerous proximate principles which, though usually obtained from the vegetable kingdom, are, however, common to both the animal and vegetable world, and I may instance benzoic $C_{14}H_5O_{26}$ and oxalic acids $C_4O_6,2HO + 4HO$, dextrine or gum $C_{24}H_{20}O_{20}$, glucose or grape sugar $C_{24}H_{21}O_{21}$, as well as indigo blue $C_{16}H_5NO_2$, indigo red, albumen, and other proteine compounds, together with fat and many of the fatty acids, and their products of oxidation and decomposition.

Now, pathologists and physiological chemists are tolerably well agreed that the source of the indigo-forming substance in the animal economy may probably be due to the destruction of some of the proteine compounds, and more especially hæmatosin, the well known red colouring matter of the blood globules, for we invariably find that the blue pigment predominates in those diseases in which great destruction of blood pigment occurs, as in albuminuria, phthisis, scarlatina, and such like diseases which are productive of great and excessive anæmia.

In those cases in which I found indigo in the urine of patients suffering from granular kidney, the blue pigment only developed itself after considerable delay in bottles partly filled, but corked; under these circumstances the urine underwent ammoniacal fermentation, from decomposition of the urea, and the oxygen of the air in the bottle produced the blue deposit of indigo as a film upon the surface of the urine of a deep purple colour, but having a coppery tinge when examined in some angles of reflection.

This substance when treated with potassa and protoxide of iron, with the assistance of heat, was readily deoxidised, and again changed into the colourless form of indigo, so well known to calico printers and others in the habit of using this valuable dye, and, as I before observed, crystallised in six-sided plates and aciculæ, of a deep blue colour, when cautiously sublimed.

I am not aware that any observer has pointed out the presence of indigo in any other animal fluid than urine, although Carter has, from certain reactions, inferred the presence of indican in human blood.

The following case, therefore, is one of peculiar interest, as I believe it is the first instance in which pus or its serous liquor puris has been shown to contain any blue pigment of this character:—

The subject of the present case was J. B., a coachman, aged about 36, married, and the father of two children. He came under my care in the month of September last, and was then suffering from an enlargement of the knee-joint, but apparently without any fluid effused in the synovial membrane. The bones themselves were evidently enlarged, and a certain amount of fixture appeared to exist, which made me almost apprehensive that anchylosis had taken place. This disease of the knee, however, did not render him incapable of walking, as he was able to come to my house from Bedminster, and he did not at that time complain of his knee at all; it gave him no pain or anxiety, as it had been of long standing; but he more especially consulted me for a large swelling over the gastrochnemius of the same leg, the left, which was, through tense, fluctuating, and it evidently contained fluid. It was not painful on pressure, and did not look like an abscess, or as being the result of inflammatory action. It was punctured, and a large quantity of serous fluid poured out, together with some large white bodies, which, at first sight, appeared like hydatids, but were afterwards thought to be masses of fat, as no distinct hydatid structure could be discovered in them. The puncture was made by my assistant, on the 20th of August, during my temporary absence from home, and when I saw him for the first time, on the 7th of September, the sac had again filled, and I removed a similar quantity of serum, together with another crop of these peculiar bodies. He walked home after both these little operations, and did not appear to suffer much inconvenience or pain.

He called on me again on the 11th of September, when the wound was enlarged, as more of these bodies appeared to be present, obstructing the opening, and preventing the exit of the fluid from the sac. This sac was evidently in the substance of the cellular tissue, over the gastrochnemius, as it was very superficial, and the puncture was made just on the inside of the calf.

He was not seen again until the 16th, when the sac had decreased considerably in size; it was discharging well, and the opening was sufficient for all purposes, the man himself having squeezed out several more of these white masses every day since he saw me last.

On the 21st of September he again called on me, when the swelling appeared in the same state as at the last visit, but he now complained of some enlarged glands in the femoral region, within Scarpa's triangle and below Poupart's ligament; these were somewhat tender to the touch and painful, for which he was directed to apply tincture of iodine freely twice daily.

Shortly after this he became very much worse, and was seized with violent shivering fits, vomiting, heat, and tenderness about the leg and knee, all of which he ascribed to the application of the iodine; but it was soon evident that he had an attack of violent phlegmonous erysipelas around the knee-joint, in the leg, and over the calf, which rapidly extended down even to the foot. Fluid continued to escape from the opening made in the sac, but it had now a decidedly purulent character, and the margins of the wound became very red, angry, and inflamed. During the course of the next week or more evaporating spirit lotions were used to keep down the temperature of the inflamed leg, and several large bullæ formed

upon the dorsum of the foot, upon the calf, and under the ham; from these, on bursting, a sero-purulent fluid exuded in large quantities, and the discharge from the original wound was considerably increased. He had frequent startings and jumpings in the leg, which gave him intense agony, and his nights were sleepless unless he had strong morphia draughts, or opium in some form or other. His leg was now so painful and swollen that he could not bear the least motion, and it was kept in one position; on its outer side, upon a splint, and somewhat flexed at the knee.

During three weeks he continued in this pitiable condition, and it was during this period that the cloths employed to keep his limb wet with spirit-lotion, together with all the bed-clothes where the fluid had soaked through them, were found constantly tinged of a greenish blue colour, having very much the appearance of mouldy cheese, whilst the spirit and water used after a little time became equally greenish blue from having the cloths frequently wrung out in the vessel containing the dilute spirit, which was made by mixing gin with about four or five times the quantity of spring water. This peculiar colour gave me no alarm, for at first I was disposed to consider it as the natural mouldiness occasioned by the presence of microscopic fungi vegetating in the organic matters of the discharges; and I ordered some of the fluid to be saved for microscopic examination, fully anticipating that I should discover these minute plants without any difficulty. But to my very great surprise I found no such organisms apparent, even with the higher powers of the instrument; whilst on repose, the bottle being full and corked, the blue colour disappeared in the course of a few hours. However, upon again taking out the cork, and exposing to the air for a short time, the blue colour was again developed, chiefly at the surface of the fluid. This experiment clearly proved that the phenomenon was due to some chemical action of oxygen upon a colourless material analogous to indigo in its deoxidised condition. So upon treating the blue liquid with a solution of hypochlorite of lime or soda, the colour was immediately discharged as certainly as if indigo itself had been acted upon.

When treated with an ammoniacal solution of acetate of lead, the whole colouring matter was precipitated in combination with the lead. And, if filtered through paper, although some of the blue pigment was retained in the meshes of the paper, some passed through from the very fine state of molecular division in which the substance was; a further deposit took place after a time in the filtrate in consequence of the oxidation it had undergone from being so freely exposed to the action of oxygen during the process of filtration.

By repeating this operation several times, sufficient material was obtained to furnish other evidence of the presence of indigo blue, namely, by its solubility in hot alkalies, when deoxidised by sugar or protoxide of iron, and the volatilisation of the pigment and crystallisation of the substance when submitted to cautious sublimation. It is much to be regretted that the true nature of this substance was only discovered upon the eve of its disappearance, or a much larger supply could have been readily obtained. On changing the remedial measures to poultices, which became necessary in consequence of the formation of numerous abscesses along the course of the saphœna vein, and in the ham, and upon the dorsum of the foot and around the ankle, the feet assumed the ordinary appearances, and the blue colouring matter was no longer found to develope itself; this might have been either from its having ceased to be formed, or from the poultices preventing that constant oxidation which was so essential for the production of the blue colour from the originally colourless base.

These abscesses were very large, and discharged greatly for several weeks; extensive sloughing followed upon the dorsum of the foot, and our poor patient was greatly exhausted from the amount of the discharge and the continued pain and want of rest; whilst it became evident that the knee-joint had become much worse since the occurrence of the erysipelas, the bones being rough and the articulation destroyed. Under these circumstances it became a question whether amputation should not be employed to give the poor fellow a chance of his life. Mr. Pritchard was called in consultation, and met me on October 29, when it was decided that as soon as he could be prevailed upon to allow it to be performed, and could be prepared for the operation by the free exhibition of good nourishing diet and plenty of support and generous wine, that he should be removed to the Infirmary for that purpose as soon as ever he was able to undertake the removal to that establishment.

About a month elapsed ere this could be accomplished, during which time the active process of inflammatory mischief became gradually lessened, and the system even showed some attempt to repair the mischief by cicatrising the wounds upon the foot, by which although at one time skin to the extent of many square inches had been lost by sloughing, yet before he left home the whole of this had been repaired and the wound had quite healed.

On the 26th of November the man was carefully lowered from his bedroom window by means of a stretcher, sliding down an inclined plane, and from thence he was carried to the Bristol Infirmary by bearers, who carefully avoided giving him the least shock during the journey.

From this time forth the case was under the excellent Surgical care of Mr. Pritchard, who kindly took charge of him at that Institution, and removed his leg after a further delay of five or six weeks, which was necessary in order to re-establish his health somewhat more to enable him to go through the operation with success, which was finally accomplished, and about two months ago I heard that he had left the Infirmary, but at that time was unable to wear a wooden leg, so the wound was not quite healed.

On a New Method of Detecting Arsenic, Antimony, Sulphur, and Phosphorus by their Hydrogen Compounds when in Mixed Gases.

(*By the same.*)

Having recently had a case of suspected poisoning by phosphorus under my Professional investigation, in which all traces of free phosphorus had in great measure disappeared, in consequence of the length of time which had elapsed since the administration of the poison, and small quantities of free phosphorus having been very decidedly present in the vomited matters and evacuations of the infant, as was rendered certain by the evidence of their luminosity when seen in the dark by two well accredited witnesses, it became necessary to examine for phosphorous acid by Scherer's excellent method. But as several of the hydrogen compounds of sulphur and arsenic, for instance, have the property of blackening the salts of silver, it becomes necessary to introduce some precautions in the method of analysis adopted, and eliminate, as far as possible, any of these hydrogen compounds from the gas previously to its being absorbed by the ammoniacal nitrate of silver, or, at all events, of testing the gas as it is being evolved for any of these mixed gases without interfering with the course of the experiment or stopping the operation for one moment.

The method adopted by me was the following:—The organic matter, stomach, intestines, and contents thereof, were dissolved, by digestion, in dilute hot hydrochloric acid, contained in a flask, and performed in a dark room, with an apparatus for exhibiting the phosphoric flashes of light, as in Mitscherlich's experiments. No evidence of free phosphorus thus exhibited itself.

The acid solution thus obtained may now contain arsenic, if present, phosphorus as phosphorous acid, antimony as chloride, and even sulphur as taurine or some other sulphur compounds are generally present. No chlorate of potassa must be employed in oxidising the organic matter, or phosphorous acid would be converted to phosphoric acid, and all evidence at once lost, for sulphates and phosphates are not reducible in the hydrogen apparatus. The acid liquid, filtered, mixed with one-third of pure spirit of wine, is ready for use.

A gas evolution bottle having been prepared, with funnel and pipe, armed with a tube containing chloride of calcium and chalk in coarse powder, is got ready for the preparation of pure hydrogen gas as usual, and tested for arsenic in the usual way. To the exit pipe is attached a long green or German glass tube, passing well supported through a series of two or more spirit-lamp flames, capable at the proper time of raising the tube at various points to bright redness. The exit pipe is subsequently bent at right angles to go through a wide-mouthed bottle, containing slips of white filtering paper dipped in a solution of nitro-prusside of sodium made alkaline by ammonia, from which bottle the gas is carried to the next bottle, containing ammoniacal nitrate of silver, and another exit pipe leading to a bottle containing a salt of lead; or it may be armed with a jet for burning, terminating the apparatus. The apparatus all being ready, and made gas-tight in the usual way, pure zinc, sulphuric acid, and distilled water are placed in the hydrogen evolution bottle, and the stream of gas allowed to escape through the apparatus, after it has been proved to contain no arsenical impurity, by conducting it, during some time, through a red-

hot tube. By now passing it through the apparatus, and applying heat to the tubes by the spirit-flames, after sufficient time has elapsed for the air to escape, the stream of gas is still further proved to be free from admixture by the whole appearance of the tests and tubes remaining unaltered. If arsenic were present a crust would form in the usual place, and antimony would also deposit itself at a spot somewhat near it, whilst sulphur would partly sublime and be deposited in advance of the arsenical crust, and the remaining undecomposed sulphuretted hydrogen gas would communicate a deep purple blue tint to the paper charged with ammoniacal nitroprusside of sodium, whilst the phosphuretted hydrogen, passing unchanged through all these tests, is at once seized by the ammoniacal nitrate of silver, and produces the black phosphide of silver, and the hydrogen purified from the mixed gases escapes through the lead solution without changing its colour, unless the evolution of phosphuretted hydrogen, supposing phosphorus to be present, be too violent for the perfect reduction of the silver salt.

It is now possible to apply this apparatus to the examination of the prepared organic liquid, and it only remains to insert it slowly, by a few drachms at a time, into the hydrogen bottle through the tubulated funnel, and if there has been sufficient spirit employed, no frothing takes place to endanger the success of the experiment, but should it occur more spirit must be at once passed down the funnel, which rapidly destroys the frothing when it comes to the surface of the effervescing liquid. If the tubes show no deposit, and the paper remains white, neither arsenic, antimony, nor sulphur can be present. The black precipitate in the silver bottle must inferentially be phosphide of silver, but it admits of absolute proof by testing it as proposed by Scherer.

The operation having been completed, the silver salt is passed through a minute filter (the paper of which has been previously well washed by acetic or dilute nitric acid passed frequently through it, then washed with ammonia) and the collected black precipitate is submitted to proof by burning the filter paper, acting on the ashes with nitric acid and heat until thoroughly oxidised, the silver precipitated by pure hydrochloric acid, and the solution filtered and concentrated to a small bulk. It contains all the phosphorus as phosphoric acid. It may be tested with nitrate of magnesia or the chloride, with ammonia and the characteristic crystals of triple phosphate ammonia, and magnesia examined in the microscope, and identified by the action of polarised light and the measurement of their angles in the goniometer. Or a solution of nitrate of silver added with ammonia, when the yellow phosphate of silver will be obtained; and the blue phosphate of iron with a soluble protosalt of that base.

To this testing of the ashes of a filter the objection may be urged that even the purest Swedish filtering paper, which alone should be employed, may contain in the fibres of the cotton phosphates which washing with acids would not remove, but which would be found after incineration, by the same method of proceeding. It is, therefore, better to burn the phosphuretted hydrogen and condense the phosphoric acid vapours produced, and test the liquid for that acid by the above method.

A single drop of a dilute solution of phosphorous and phosphoric acid as contained in the water, in which phosphorus had been long kept, furnished abundant evidence of crystals of the ammonia and magnesian salt, when a glass slide, with a drop of distilled water on it, was inverted for a few seconds over its flame, as obtained in the following modification of the apparatus proposed.

When combustion of the gas is determined upon as the method of proof, the silver solution should be removed, and a little platina or hard glass jet inserted in the end of the tube from the ammoniacal nitro-prusside of sodium bottle. The gas, being inflamed, may be treated as before, but to get sufficient evidence of small traces of phosphorus, it would be well to burn the gas in a clean glass globe, kept cool, by damp cloths placed around it, and the issuing stream of gas passed through a perpendicular tube, surrounded by a freezing mixture—and the condensed water, collected in a bottle as by Mitscherlich's process—by washing out the bottle, tube, and globe with distilled water, and concentrating by evaporation, the most minute traces of phosphorus would be obtained and rendered evident, without any possibility of contamination with any foreign organic matter.

On the Functions of the Cerebellum.

By T. S. Prideaux, Esq., London.

The magnitude and position of the cerebellum both proclaim the importance of its office in the nervous system. Strange to say, what this office is has remained up to the present day a matter of doubt. Vivisection has been the ordinary mode of study resorted to by those seeking to discover its functions, and in the unsatisfactory character of the means employed we see at least one explanation of the barrenness of the results obtained.

I confess the more I consider the nature of these experiments the less likely they seem to me to be productive of utility. How can we practise destructive mutilations on the most vital organs of highly organised living beings without producing an amount of general disturbance and derangement which must mask the special indications of which we are in search? Such are in reality the results, and the uncertainty and variability of the phenomena manifested render such experiments as a test of the seat of the conscious and voluntary powers of animals all but entirely worthless. How is the destruction by boring, slicing, and cutting of one precise part of the nervous structures to be effected without injury to the parts adjacent? Is it possible to perform twice in succession exactly the same extirpation, or cause only the same amount of hæmorrhage? When the many multiplied relations which the nervous centres have with each other are considered, and that the protecting bones and membranes have to be cut and lacerated before access to them can be obtained, the insurmountable difficulty of isolating such lesions must be apparent to every anatomist.

Instead of taking for the subjects of our studies the manifestations of animals in a state of suffering and restlessness produced by irritating wounds and inflammation of the brain and its membranes, how much better to resort to those natural mutilations which nature so bountifully offers us—as if for the solution of physiological problems—in comparative anatomy and physiology. If, for example, in comparing one species of animals with another, we find that the first possesses in extraordinary vigour functions existing in the second in a comparatively nascent or rudimentary condition, whilst an equally marked contrast is presented by the relative development of some certain portions of the nervous system of the two, the office of which is unknown, a presumption arises that the coincidence is more than accidental, that there may possibly be some connexion between development and function.

Now, if we examine the cetacea, we find them characterised by an extraordinary and peculiar development of the articular system of nerves which more or less pervades the whole of the layer of blubber interposed in this family between the skin and the muscles and forms a network of extreme minuteness in its external surface. In harmony with this organisation the sense of feeling in these animals is so fine as to enable them to communicate with each other at long distances by the vibrations of the water. A friend who once saw an embayed porpoise put to death by some fishermen, assured me that the cries of the animal when wounded were heart-rending, and conveyed the idea of the most acute suffering.

In striking contrast to the cetacea, with reference to the development of the articular system of nerves and the sense of feeling, stand the class of birds. Clothed with feathers, the beak horny and little sensitive, the toes scaly above, with a callous skin underneath, the sense of feeling is evidently at a very low stage. In fact, any extraordinary sensibility in the skin beneath feathers, which must necessarily render the sense of touch indefinite and feeble, would manifestly be thrown away.

Now, if we examine the development of the cerebellum in these two classes of animals, we find as great a contrast in its structure as we do in their respective manifestations of the sense of feeling.

In the porpoise the size of the cerebellum compared with that of the cerebrum is as 1 to $2\frac{1}{2}$, whilst its unusual bulk is entirely occasioned by the enormous development of the great lateral lobes, which, equal in absolute size to those of man, far surpass his or any other animal's in the proportion they bear to the other nervous centres.

In birds, on the contrary, the development of the lateral lobes may justly be described as rudimentary, apparently consisting of little more than the root of the fifth pair of nerves. The median lobe or cuneiform process, however, attains in this class to an unusual magnitude, so much so that the weight of the cerebellum, as a whole, compared with that of the cerebrum, is not inferior to that of mammalia, and varies from 1 to 4 to 1 to 13.

Seeing, then, that in the cetacea the extraordinary development of the cuticular system of nerves and cutaneous sensi-

bility coincide with the extraordinary development of the lateral lobes of the cerebellum, whilst in birds an equally remarkable absence of these nerves and want of cutaneous sensibility is associated with an equally marked deficiency of the same structure, the presumption arises that these nervous masses and this function stand in the relation of cause and effect, and that the lateral lobes of the cerebellum are the ganglia of the cuticular system of nerves.

The question now presents itself what power birds possess in a degree as commensurately greater than other vertebrata as the median lobe of their cerebellum surpasses that of the latter in size. To be able to support themselves for long periods in a medium of so much less specific gravity than their bodies indicates extraordinary muscular power, whilst the ease and grace of motion many display in their flight show the possession of great ability for balancing the body with an extremely delicate sense of resistance. If we pursue our investigations by comparing different species of birds with each other, we shall find amidst all the diversities of relative size of cerebellum to cerebrum which present themselves, a close, and, I believe, invariable association of the larger cerebella with the greater locomotive power, and *vice versa*. In the crow, whose motions are neither rapid nor elegant, the weight of the cerebellum is 11⅓ grains, and that of the cerebrum 129 or 1 to 11½; whilst in the common gull, which floats through the air in graceful curves, skims with rapid wing the surface of the waves, or sports with the wind in zigzag flights, the weight of the cerebellum is 14 grains, with a cerebrum of only 63, or 1 to 4½. The swift sparrow-hawk possesses a cerebellum of 6½ grains and a cerebrum of 36½, or 1 to 5·6; the slow grey owl, a cerebellum of 9 grains and a cerebrum of 120, or 1 to 13⅓. In the swallow tribe, who live on the wing, the cerebellum reaches, proportionately to the cerebrum, the largest development to befound in the class, being as 1 to 4.

These facts seem to point to the median lobe of the cerebellum as being the ganglion of the nerves of muscular condition or resistance, and through which we are always automatically conscious of the position of the extremities, and of the centre of gravity. The centre, in fact, of a system of sensi-motor nerves playing as important a part with regard to the function of locomotion as the true spinal or reflex plays with regard to the functions of ingestion and egestion. Habit renders muscular acts so automatic that we are almost totally unconscious of the great extent to which they are stimulated by the sensation of resistance, and how necessary this stimulus is to their long continuance without fatigue. When a boy, just learning to swim, I was very much puzzled by the fact that after swimming across a small pond, which I could cross in about twenty strokes, I felt fatigued. The expenditure of muscular power must, I knew, be very small, yet the fact of fatigue being experienced was equally undodbted. The explanation I am now inclined to offer is that although some allowance must be made for the motion being a novel one, the grand source of the fatigue was that the sensi-motor nervous system being unused to respond to a stimulus offering so little resistance as water, the whole task of keeping up the motion fell upon the volitional. If a strong man capable of walking forty miles in ten hours without resting were suspended by a belt placed round the waist and required to go through the action of walking, although moved forward artificially through the air at each stride so as to keep the centre of gravity in a proper position in advance, yet I am convinced he would be thoroughly fatigued with ten minutes of this exercise.

The question arises, in what direction shall we extend our inquiries in search of further evidence to assist our judgment in forming a conclusion either in favour of or against these views? Fortunately, nature comes to our aid, and presents us, in the cheiroptera, with an order of animals the organisation of which might be supposed to be specially designed to assist us in the determination of our problem, and which combine the sensibility of skin of the cetacea with the agility and locomotive power of the bird. The surface of the body in bats, including the wings, presents, for the size of the animal, an enormous extent of nearly naked membrane endowed with a sensibility so marvellous, that they avoid obstacles in their flight with great precision, even after their eyes have been removed, and in places to which they are strangers. Although blind, they will fly rapidly through apertures only just large enough to allow of their passage, and even avoid small threads stretched across the apartment, their only apparent means of guidance being the diversity of the aërial undulations.

Now, in striking confirmation of the views of the functions of the cerebellum which have been suggested by the comparison of birds with cetacea, the bat, in combining the acute tactile sensibility, agility, and locomotive power possessed singly by each, combines also the large lateral cerebellar lobes of the latter class with the large median lobe of the former, the cerebellum being in the bat, proportionally to the other nervous centres, larger than in any other animal. In the common pipistrelle the average (drawn from six) is, cerebellum, ·96 of a grain; cerebrum, 1·78.

On the Inhalation of Oxygen Gas.

By B. W. Richardson, M.A., M.D., London.

This paper was supplementary to one which had been laid before the section at the meeting of the Association held at Oxford. The author said his experiments on the inhalation of oxygen had led him to an almost precise knowledge of the condition under which oxygen would most freely combine with blood. It had been stated in almost every modern work on physiology, that oxygen inhaled in the pure form is a narcotic poison. These statements are based on the researches of Mr. Broughton, in which the late Sir Benjamin Brodie took part. The observations of Mr. Broughton, in so far as the recital of the phenomena observed by him were concerned, were strictly correct, but the inferences that had been drawn from him were nearly altogether incorrect, and were, at the best, so narrow, as to be comparatively valueless. In fact, Mr. Broughton had seen but one form of oxygen inhalation. The author next stated that the influence of oxygen in inhalation was modified. 1. By dilution of the oxygen. 2. By dilution of the blood. 3. By the activity of the oxygen. 4. By the presence or absence in the blood of bodies which stop combination. On the point of dilution of oxygen, Dr. Richardson stated that a certain measure of dilution was required, not because the body consumed too quickly in simple oxygen, but because neutral oxygen would not combine with the carbon of the blood unless it were diluted. In atmospheric air the dilution is just sufficient to do more than alter combination, and the quantity of oxygen may be increased, with absorption at 60° to 65° Fahr., if the oxygen is raised in amount to three parts of the gas to two of nitrogen. Beyond this, the combining power is reduced, and oxygen is not absorbed. Hence animals die in the gas as it approaches the pure state; they die not by a narcotic process, but by a process of negation. On the point of dilution of the blood, the author said that blood possessing a specific gravity of 1053 seemed to have most steady power in absorbing oxygen, as it existed in common air; by increasing the quantity of water in the blood to a limited extent, say, until it lowered the blood to 1060, the absorption of oxygen is increased to a maximum, and after that it is diminished. Below 1055 the absorption of oxygen steadily declines. In respect to the activity of the oxygen, the most differing results are obtained, according to the activity. If the oxygen be made fresh from chlorate of potassa, it sustains life even in the pure form, and the activity of the functions is increased: if electric sparks are passed through the gas, or if the gas be heated 100° Fahr., the same is the fact. On the other hand, if the gas is exposed to ammonia, to decomposing animal matter, or even to living animals, over and over again, it loses, even when diluted, its activity, and no longer combines with the blood. In reference to the last point, Dr. Richardson said that there were conditions of blood in which the power of absorption was limited. Alcohol, chloroform, opium, and certain alkaline products formed in the blood in disease, prevented absorption of oxygen, and death not uncommonly took place from this cause. Great increase of water did the same. After this description, Dr. Richardson added that the question had often been put, whether the inhalation of oxygen could be usefully applied in the treatment of disease? Priestly, Beddoes, Hill, and many of those who lived when oxygen was first discovered, had formed the most sanguine expectations on this point; they saw before them an elixir, if not *the* elixir vitæ. Chaptal, in speaking of the effects of oxygen in consumption, said of it, "It raises hope, but, alas! it spreads flowers towards the tomb." Since then, various opinions of the extremest kind have been expressed, the difference having arisen from the entire want of order that has been followed in the inquiry. The one man has used pure oxygen, the other diluted: the one active, the other negative oxygen. The one has given the gas to anæmic people, whose blood is surcharged with water; the other to diabetic or choleraic persons, whose blood is of high specific gravity: the one has

given it heated, the other at the temperature of the day. If even a stick of phosphorus were exposed to oxygen under such varying conditions, the phenomena obtained would be as variable as those that had been registered in physic regarding oxygen as a remedy. The difficulties of arriving at uniform results had been almost insurmountable from another cause, that of obtaining oxygen in a practical form for inhalation. Fortunately, this difficulty was now removed. The discovery by Mr. Robbins of a mode of evolving oxygen, by acting on peroxide of barium and bichromate of potassa with dilute sulphuric acid, had given him (Dr. Richardson) the opportunity of inventing a little apparatus for inhaling oxygen, which could be carried anywhere, and used at a moment's notice. The author here exhibited and described the apparatus. It consists of two glass globes, with a double-valved mouth-piece, connected with the escape-tube of one globe. The powder containing the oxygen was placed in one globe, and dilute sulphuric acid was poured on it. The oxygen gas was evolved, and passed over into the second globe, which was half filled with water. From this, after being washed, in passing though the water, the gas was inhaled. The apparatus was so arranged that any dilution of oxygen could be secured—3 parts of oxygen to 2 of nitrogen was recommended; and, by changing the water in the second globe, so as to have it hot, or temperate, or very cold, the activity of the combination could be graduated. In conclusion, Dr. Richardson remarked that his object in bringing forward this short communication was to invite Medical men to a method of research which promised much, and which now might be carried on with certainty of result and uniformity of experience.

Discussion.

A discussion followed, in which Professor Wanklyn dwelt on the importance of Dr. Richardson's observation as to the deterioration of oxygen. It explained away the difficulties respecting the impossibility of accounting for the effects of bad air on the carbonic acid theory. Take, for instance, a large room filled with people, close the doors and windows, and, as they knew, in half an hour's time the air would become much deteriorated. It was once supposed that this deterioration was due to the abstraction of oxygen and the evolution of carbonic acid. It had now been ascertained, however, that this had nothing to do with the result, and if they took a sample of air, from the most crowded theatre, the relative proportions of the oxygen carbonic acid would not be found to have altered more than one part in 1000 from the normal condition. To what then was the deterioration due? Carbonic acid, so far as they knew, was not so particularly active that one part in 1000 might determine whether the air was a little better or worse. The chemical world would be quite prepared to hear from Dr. Richardson the facts he had stated.

The President said he had found that oxygen gas lost its activity after being kept. He believed, therefore, that oxygen might undergo deterioration, but still was of opinion that carbonic acid gas played an active part in rendering air impure in crowded rooms.

Dr. Richardson in reply said, of course in crowded rooms there might be a large accumulation of carbonic acid, and persons might be influenced by it, but the fact he wished to lay down, was that carbonic acid was not necessarily the cause of deterioration, and that oxygen itself by constant use might be brought to such a condition as not to sustain life. In one of his experiments an animal placed in oxygen, after remaining for some time, showed signs of a feeble condition, such as poor people living in badly ventilated houses exhibit; but upon charging the air in the vessel with electric sparks, the animal recovered. These facts might be turned to account, and a wholesome atmosphere produced by using the preparation to which he had referred, or the bichromate of potassa, placed in open vessels and treated with sulphuric acid, and producing ozonised oxygen. We might ventilate a room in the best possible manner, but if the supply of air passed over a bad neighbourhood matters might be made worse by the precautionary measures. The condition of the blood had a good deal to do with the absorption of oxygen. Pale persons, whose blood was exceedingly watery, did not absorb oxygen to the same extent as others, and thus fainting was easily produced in them.

The Food of the Labouring Classes.

By Edward Smith, M.D., F.R.S., London.

Dr. Smith divided his subject into two parts, separating the agricultural from the town population, and further subdivided the former class into those fed at the farm, and those who took their meals at home, the former of whom were well fed, and the latter poorly. In Devon, Somerset, Dorset, and Wilts, the breakfast commonly consists of tea-kettle broth, a milk broth or sop, or bread broth (consisting of bread, hot water, salt, pepper, and a little milk or a little fat of some kind, boiled together), or broth from bacon liquor with condiments, eaten with or followed by bread and treacle, and with or without tea or coffee. Sometimes the children have the broth only, and the wife has tea, bread, and fish, or the husband has bacon, bread, and tea, the wife dry bread and tea, and the children milk, or all have porridge, or the husband alone has it, and the wife and children, tea, bread, and dripping; or the husband and children have it, and the wife has tea, bread, and butter; or fried bacon and cabbage is provided; or the husband takes bread and butter only with him; or they all have broth, bread, bacon, and butter; or the husband alone has broth, bread, and a rasher of bacon, or all have tea and bread only; or husband has bread and cheese, the family dry bread, and the infant sop; or all have bread and cheese. In Northumberland, Cumberland, and Westmoreland, the husband, and sometimes the children, have milk and bread, or milk porridge, or milk and oatmeal pudding, whilst the others have coffee or tea, bread, and butter, or cheese. In Herts and Cambridgeshire the husband has pork, bread, and butter, and tea, or pork, bread, and beer, and the family tea or milk, bread, and butter. In the other counties the breakfast consists of tea or coffee, with bread and butter, the children sometimes having milk and bread, or milk porridge. In a few cases bacon is added to the tea or coffee and bread. The aim is always to provide some kind of meat, with vegetables, for dinner, and in towns, as well as among the farm-labourers in the Midland and Southern counties, this is generally effected daily, whilst in the South-western counties it is not unfrequently restricted to two, three, or four days in the week. This is part dependent upon the income, in part upon the thrift of the family, and in part upon the husband's eating away from home. When meat is not supplied, vegetables, as potatoes or cabbage, are obtained, if possible, and if there be some fat with which to fry the cabbage, or to eat with the potatoes. When this is not practicable, either from the absence of vegetables or fat, boiled rice is sometimes used in the South-west, or a pudding, made generally of only flour, salt, and water, but sometimes with a little suet or other fat added. In the absence of this, the dinner consists of bread and cheese, or of bread and butter. In the Midland and Northern counties it is not unfrequent to provide pudding as well as meat, either daily or several times in the week; and in the South-western counties, broth from bacon liquor and vegetables, with or without suet dumplings, boiled in it is common. It is necessary to remember that there are three, and sometimes four, classes of persons in each family. The husband, who may or may not dine at home, the children, who do not go out to work, the infant who must have some flour food, and the wife. When the husband dines away from home, four circumstances interfere with the plans of the family. 1st. He must have all or the largest share of the special food which he takes, as meat, bacon, or tea, since it is impossible to provide food so that each person may separately have an equal share, when they do not take it together. Moreover, the wife holds him entitled to the largest share of the best food. 2nd. In proportion as the husband has the largest share, the other members of the family have a less share. The children have the dripping from the bacon as their share of the meat, or have bread and dripping or bread and treacle. The infant has sop, with or without milk, and the wife has tea, and the children bread, with, perhaps, a little of the meat or bacon. 3rd. When the husband does not dine at home, it is rare, in the south-western counties, for the family to have any hot food for dinner, except tea. 4th. When there is not a hot dinner, there is almost always a hot supper. In a few instances the dinner meal is the same as the breakfast; but, generally speaking this is unusual (except with the husband, who has taken his food from home), and it is far more common for it to be like the supper. Amongst the poorest towns, operatives or needlewomen, and silk weavers, it is customary to buy a little cooked fish, or a little black-pudding, sausage, or bacon, or scraps of meat to be eaten with potatoes or bread. When this is prepared for the supper, the dinner consists of bread and butter or dripping. Hot dinner is nearly universal in wealthy populations. In Wales, the dinner consists of herring or bacon, or meat, with vegetables

and broth, or of bread and milk, or gruel, bread and cheese, or of potatoes and butter-milk, with bread and cheese. In the west of Scotland, it is composed of very similar food, as potatoes and fish, or potatoes and milk, or of porridge, milk and bread, or of bread and butter, when away at work, and of potatoes, herring or meat, with broth, on Sundays, or of potatoes, and bacon or meat, and milk and broth, whenever they cook the meat. In the west of Ireland it consists of stir-about of Indian corn, with a little sugar, or of potatoes and salt, with or without a little butter, and in either case with skimmed milk or butter-milk. Amongst town populations the supper generally consists of bread and cheese and beer, when there has been a hot dinner; but when otherwise, there may be hot meat or bacon, with or without potatoes, and with beer or coffee. The very poor do not usually eat supper, except when so occupied that they could not take tea early, but are restricted to three meals per day. In the country, milk porridge is not unfrequently taken at this meal. Amongst farm labourers in the South-western counties, there is almost always a hot supper, which is quite analogous in kind to the dinner, and is often the only meal, except those on Sundays, at which all the members of the family meet.

A brisk discussion followed, in which Dr. Rolleston, Dr. Crisp, Dr. Bennett, the Bishop of Bath and Wells, and many other speakers took part.

On Obliteration of the Sutures in One Class of Ancient British Skulls.

By J. Thurnam, M.D., Devizes.

The author said that the skulls of the sterie period gave indications of synastosis, and, as a race, characteristic; and in connection with this fact it was worthy of notice that the sutures closed earlier in superior than in inferior races, and that their earlier obliteration was an African peculiarity. A comparison of a number of skulls showed that the elongated form was usually coincident with the early obliteration of the sutures; but whether the two things were in any way connected it was impossible to say. He referred to the finding in a barrow in Wiltshire, from which fourteen skeletons had been taken, of a very much elongated skull, which was marked by the perfect obliteration of the sagittal suture, while the coronal and all lateral sutures were open. It was the skull of a young man, and the case was evidently not one of senile obliteration. After speaking of the result of discoveries in Gloucestershire and in other parts of the country, Dr. Thurnam gave a description of an ancient British skull found at Charlcomb, near Bath, the transverse depression of which was, in his opinion, due to the wearing of a particular description of head-dress, and not to fusion. External pressure not unfrequently caused obliteration of the suture where it was applied.

Discussion.

Dr. Davy said it was not impossible that in some cases obliteration of the suture was due to the deposit of a large quantity of lime, and this was supported by the fact that many of the African tribes lived very much upon milk.

Dr. Thurnam said his observations did not bear out the impression that some of the ancient races of this country were of the same class with those who once spread over the whole of northern Europe. The theory was not well sustained, inasmuch as our oldest skulls were very narrow, whereas in Lapland they were the reverse.

On a Supplementary System of Nutrient Arteries for the Lungs.

By Wm. Turner, M.B, F.R.S.E., Edinburgh.

An arterial plexus was described on the side of the pericardium beneath the mediastinal pleura. It was formed by the junction of the pericardiac, mediastinal, and phrenic branches of the internal mammary artery with each other, and with numerous fine branches from the trunks of the intercostal arteries. From it a number of slender, thread-like arteries passed to the lung, some in front of the root, others behind the root, and others between the layers of the ligamentum latum pulmonis. Some of these arteries were distributed in the substance of the lung, others on the surface beneath the pulmonic pleura. Through the agency of this plexus an arterial communication is established between the blood vessels of the lung and the arteries which supply the wall of the chest with blood.

Cranial Deformities—Trigonocephalus.

(*By the same.*)

In this paper, a peculiar form of head was described in which the frontal eminences were completely absent, and in consequence the forehead above the eyebrows and orbits was flattened or even concave. In the middle line, however, the forehead projected forward and formed a sort of beak, narrow below at the root of the nose, but swelling out laterally as it approached the line of the hair. Examined from above the head had a broadly ovate or even a somewhat triangular form, with the apex forwards at the forehead and the rounded base at the occiput. The boy in whom this head was seen was well grown and intelligent. The peculiar shape of his head was noticed from his birth. It evidently corresponded to the form termed "trigonocephalus" by Welcken. It was argued that its production was due to a fusion of the two centres of ossification of the frontal bone and consequent premature obliteration of the frontal suture.

(To be continued in our next.)

REVIEWS.

Outlines of Surgical Anatomy. By George H. B. Macleod, M.D., F.R.C.S.E. Churchill and Sons. Pp. 543.

Dr. Macleod, in the work before us, seems to have solved the problem of writing a book which shall be at once a concise epitome of the present state of Surgical knowledge and a valuable guide to the young Practitioner, and at the same time shall avoid the dry, indigestible character pertaining to most manuals. The main body of the work is preceded by an introductory chapter wherein he treats of the importance of a just diagnosis in Surgical diseases, the difficulties in the way of its acquirement, and points out the best methods for their investigation; directing inquiries to be made, on the one hand, into the history of the patient as to hereditary predisposition, temperament, age, habits of life, etc.; and, on the other, into his present condition. He then proceeds to describe the various symptoms as they present themselves to the examiner's senses, classifying them into those appreciable by sight, touch, hearing, smell, and taste, to the second of which, *tactus eruditus*, he attaches especial value, and regards it as the peculiar accomplishment of the skilful and experienced Surgeon. He then passes on to review the condition of the circulatory, respiratory, nervous, digestive, and urinary symptoms. This section of the work contains a great many valuable practical hints, among which we may cite the following:—"In examining the pulse of any patient, his attention should not, if possible, be directed to the act, and hence a watch should not be ostentatiously held before him, but he should be engaged in conversation, so as to allow of the first excitement subsiding." The chapter concludes with a description of the various instruments employed for Surgical diagnostic purposes, as specula, ophthalmoscopes, laryngoscopes, catheters, probes, sounds, etc., and the mode of using them.

The main body of the work is arranged in alphabetical order, which, although it facilitates reference, renders it difficult to do more than present the reader with the author's views upon one or two subjects which are most likely to come under the Practitioner's notice. And first to begin with hernia. Under this head the work contains much useful practical information, especially where it treats of the diagnosis between inflammation of an irreducible hernia and strangulated hernia. He enumerates twelve signs:—1. The past history of the case; 2. The viscus protruded and its place of protrusion; 3. Pain; 4. Progressive or sudden supervention; 5. Tension and state of skin; 6. Volume; 7. Vomiting; 8. Introduction of the finger into the ring; 9. Constipation; 10. Abdominal tenderness; 11. Fever; 12. Issue of the case. He then proceeds to describe the varieties of hernia and the affections for which they may be mistaken. Of course it cannot be said that the work contains anything new upon these subjects, but only that the classification adopted and the plain, clear, and concise language employed materially facilitate their study. Again, in diseases of the mamma, after describing abscess, acute and chronic, cysts, hypertrophy, and innocent tumours, he proceeds to treat of cancer. In the diagnosis of schirrus he seems to place most reliance upon the following symptoms:—1. Its stony hardness and incompressibility; 2. Its weight; 3. Its adhesion to the surrounding tissues and immobility; 4. Its rapid growth. He remarks, "It may, however, be said that while no one sign is quite characteristic of the cancerous nature of a tumour, yet that in a hundred growths which have existed for some time in the mamma of a female beyond middle life, and which are

hard, resistant, and heavy to the hand, insensible to pressure, and have resisted simple treatment, ninety-nine will be cancerous; and if to these symptoms be added lancinating pains, enlargement of the lymphatic glands, and failure of the general health, there is scarcely room for a doubt as to the nature of the tumour." In his remarks, however, upon ovarian dropsy the author is somewhat at issue with Dr. West, as a comparison between the following passages from either author will prove. Dr. Macleod says, speaking of ovarian dropsy, "But it is in married females who have borne a family, and whose catamenia are about to cease, or have just ceased, that it is most common;" whilst, on the other hand, Dr. West says, "It occurs in the unmarried oftener than most other organic diseases of the sexual organs, and the married who suffer from it are remarkable for their low rate of fecundity, and for the frequency among them of absolute sterility." At the same time, they both agree in this, that the disease is invariably connected with some irregularity of the menstrual function. The affections he mentions liable to be confounded with this disease are pregnancy, ascites, distended bladder, dropsy of the uterus, chronic peritonitis, solid uterine benign tumours, phantom tumours, cystic tumours of the abdomen, accumulation of fæces, and enlargement of some of the abdominal organs, the differential diagnosis from which are all clearly given. Under the head of Brain, the section commences with a comparison between the symptoms of compression and concussion, with their most frequent causes, and a review of the value of the symptoms supposed to indicate the seat of effusion in cases of compression, which, in the opinion of the author, are seldom to be much relied on, so many counteracting causes often combining to mask the indications. He then passes on to review the symptoms attributed to contusion of the brain, which were brought into prominent notice by Mr. Prescott Hewitt in his Lectures on Injuries and Diseases of the Head; then follow meningitis and encephalitis, acute and chronic, amongst the distinguishing symptoms of the latter disease, he alludes to early vomiting, the tongue still remaining clean, and he points out that in meningitis the stage of excitement is more apparent, while the symptoms of compression do not set in so early as in encephalitis.

In the section on Dislocations, after defining the term, he groups the symptoms into seven classes:—1. Deformity; 2. Impairment, or loss of function; 3. Length; 4. Change of axis; 5. Changed relations of the bony processes in the neighbourhood of the articulation; 6. Crepitation; 7. Accessory symptoms, as pain, swelling, and discoloration; and these seven classes of symptoms he successively discusses in each dislocation. In the same way in treating of Fractures he groups their symptoms into—1. Deformity; 2. Unnatural mobility; 3. Crepitation; 4. Loss of function; 5. Accessory symptoms, as pain, swelling, and discoloration, which are similarly applied severally to each kind of fracture.

Having thus glanced at a few of the leading subjects contained in the book, it only remains to observe in respect to the remainder that the symptoms pertaining to each affection treated of are arranged and described in such a manner as to facilitate their study, and impress them upon the memory. For by the clearness and lucidity of the explanations on the one hand, and the avoidance of all unnecessary detail on the other, Dr. Macleod's work becomes not only a valuable manual and work of reference, but also an eminently readable book.

The Yellow Fever of Bermuda.—Advices from Bermuda to the 29th ult., received by the *Darian*, arrived at Torquay, report that yellow fever was on the increase. The captain and most of the crew of the merchant steamer *Powerful* had died.

Successful Ligature of the Innominata.—We learn from the *American Medical Times* of May 15 last that the innominata and right carotid were tied at one operation for the relief of aneurism, by Dr. A. W. Smith, of New Orleans. The patient was a mulatto, aged 33. Three weeks after the operation and one week after the separation of the ligatures some pultaceous hæmorrhage recurred again and again, whereupon Dr. Smith tied the vertebral with complete success. The patient was well and walking about on August 16. The ligature of the vertebral is due to the suggestion of Dr. D. L. Rogers. It need scarcely be said that if hæmorrhage returned, as it did after ligature of innominata and carotid, and ceased on tying the vertebral, it would have been useless to have tied the subclavian distally.

REPORTS OF SOCIETIES.

WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON.

Friday, June 3.

Dr. Barclay, President, in the Chair.

ANNUAL MEETING.

The following members were elected as officers for the session of 1864-65:—*President.*—Mr. G. Pollock. *Vice-Presidents.*—Mr. J. Lane, Mr. Prescott Hewett, Dr. Baines, Dr. Marcett. *Council.*—Dr. Godwin, Dr. Fuller, Mr. Rouse, Dr. Martyn, Mr. Brodhurst, Dr. Way, Mr. Vasey, Dr. D. Davies, Mr. Fraer, Mr. Keen, Mr. Richardson, Mr. Knight. *Treasurer.*—Dr. Baines. *Hon. Librarian.*—Mr. T. Dickinson. *Hon. Secretaries.*—Mr. Milner and Mr. C. Hunter. *Auditors.*—Mr. H. P. Bannister and Dr. Way.

After the reports of the council and auditors were submitted to the Society,

Dr. Morell Mackenzie read a paper

ON THE VARIOUS INSTRUMENTS REQUIRED FOR APPLYING REMEDIES TO, AND OPERATING ON, THE LARYNX.

The Author of the paper said that for applying remedies to the larynx nothing was so convenient as a camel's hair pencil cut square at the end, and firmly attached to the end of a piece of copper wire plated with silver. The copper wire could be bent in any position, and yet remained rigid, and it was convenient to let the wire form one or two coils at its posterior extremity, where it was fixed in a handle of suitable size and shape. This instrument could be bent at any angle, and, in consequence of the coil, could be easily lengthened or shortened; thus it enabled the operator to introduce solutions into the larynx under almost any circumstances that made such treatment desirable; and in some cases rendered it possible for him to apply topical remedies to the lower part of the windpipe. For the application of solid nitrate of silver, the author recommended a piece of aluminium wire, roughened at its laryngeal extremity, and, of course, suitably curved. This should be dipped into some nitrate of silver, fused over a spirit-lamp; by this means sufficient of the salt adheres firmly to the extremity of the wire, and can then be safely applied to the interior of the larynx. It was rarely, however, necessary to use the solid nitrate, as the solution was generally found sufficient. Some few laryngoscopists had recommended the application of remedies by means of syringes, but this method generally caused more irritation than when a brush was used. The late Dr. Theophilus Thompson had used a curved silver tube, terminating at one end in a finely-perforated extremity, whilst at the other there was a small caoutchouc bag, by means of which the fluid was forced into the larynx. This instrument had lately been revived, but as in its use the palm of the hand or the thumb have to be pressed against the elastic bag, the position of the point of the instrument is thereby altered, and medicated solutions cannot be applied with much certainty. Rauchfuss had lately recommended a somewhat similar instrument, but his is made of vulcanite instead, and is therefore much cheaper. Rauchfuss' instrument could be employed either for powdered substances or for solutions. The author remarked that by having the caoutchouc bag at the upper part of the tube, the pressure could be applied from above downwards with the index finger, and thereby the position of the point of the instrument was not altered. The author next briefly described his "laryngeal galvaniser," which he said was now used by almost all laryngoscopists, both in this country and on the Continent. In support of its value he referred to his pamphlet on the subject. He next showed his scarifier. This instrument the author described as very useful in œdema of the larynx, whether of an acute or chronic character, also in some cases of thickening of the mucous membrane, and sometimes for operating on excrescences, opening abscesses, etc., etc.

The author next exhibited his

LARYNGEAL FORCEPS FOR REMOVING GROWTHS FROM THE LARYNX.

He said that all the instruments which he had introduced acted on the same principle, or rather required the same method of manipulation. They were all to be held firmly between the thumb and second finger, so that the index finger is left free to press down a spring in the upper part of the

instrument. In this way the position of the point of the instrument was scarcely altered at all, and where one was in fact aiming at an image, that was of the greatest importance. In Dr. Mackenzie's forceps the closure of the blades is effected by means of a hollow which is made to enclose them, so that the blades themselves do not move. The merit of the instrument consisted in the great number of indications it fulfilled; in fact, it was adapted for operating in any case, in any larynx, in any part, from considerably below the vocal cords, to the lingual surface of the epiglottis. (1.) The blades of the instrument turned round, and could be directed to either side of the larynx, or anteriorly and posteriorly. (2.) The instrument was provided with tubes curved at different angles—an arrangement adapted for overcoming the difficulty arising from the varying inclination of the laryngeal opening in the pharynx. (3.) The instrument could be made shorter or longer, according to the circumstances of the cases. (4.) Finally, different kinds of blades could be used; the teeth could be either at the side or the extremity; the blades could be either long or short. The tube (which passed over the forceps) is made in two pieces, united by bayonette joints. By this means the instrument can easily be kept clean—a matter of great importance as regards the safety of an instrument employed in the larynx. The author observed that with this instrument he had operated on more than a dozen cases. In nine the growths had been completely removed, and in most of them aphonia of many years' standing had been relieved. The author said that the great ingenuity of that instrument was due to the mechanical skill of Mr. Krohne, of the Whitechapel-road, who made the forceps as well as the other instruments. In conclusion, the author exhibited several patients suffering from rare morbid conditions. One was a case of aphonia of eleven years' standing. In this case the anterior two-thirds of the vocal cords were completely atrophied, so that only the posterior intercarliginous portions approximated. Another was a case of aphonia which had existed for fourteen years; it was caused by adhesions of the inner surfaces of the true vocal cords. The two cords were adherent for about a quarter of an inch from their anterior insertion; their posterior three-fourths scarcely moved at all. In a third case, in which there was a shrill voice and stridulous breathing, the symptoms depended on spasm of the left vocal cord, probably arising from pressure on the recurrent nerve. The cause of the pressure was not determined.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen passed the Preliminary Examination in General Knowledge at the last meeting of the Board, viz.:—

J. P. Allwood, R. B. Anderson, Joseph Bellingham, F. B. Besby, J. C. Barker, H. J. Broom, William Butler, C. F. Bedford, Leonard Cane, J. L. Collier, Harold Crompton, C. W. Chapman, W. G. Cooper, William Cheetwood, F. P. Deshon, Joshua Duke, John Deane, William Davies, H. V. Ellis, Branford Edwards, R. S. Fairbank, Joseph Gabe, John Giles, Edward Greaves, William Grant, A. V. Griffiths, Frederick Hay, J. R. Hughes, David Haward, W. H. Hutchinson, J. T. Jones, G. H. Jackson, H. R. Jacobs, E. C. Jee, St. J. W. Lucas, A. R. Lee, Friend Lewin, William Little, Joseph Lawton, J. R. Lazenby, W. T. G. Leapingwell, S. G. Littlejohn, J. B. Meredith, J. F. McConnell, John Morris, A. F. McGill, A. R. Manby, W. H. Meredith, W. H. Mills, William Naughtin, G. E. Norton, H. H. J. Nicholls, A. J. Owen, Samuel Pidwell, T. H. Ravenhill, Edward Roberson, C. K. Rudge, William Rose, Edwin Sanders, R. W. Savage, Henry Scobell, C. B. E. Saunders, S. L. Trevor, Philip Thompson, A. J. Wall, A. T. Walker, B. W. Wellings, Arthur Wood, Julian Willis, W. N. Walker, R. L. Willcox, and Joseph Wharton.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, September 8, 1864:—

George Vincent Langworthy, Modbury, Devon; John William Hayward, Seasalter, Canterbury.

Also, on Thursday, September 15:—

Alfred Grace, Downend, near Bristol; William Henry Witherby, Coombe, Croydon; George Edwd. Shuttleworth, 19, Russell-place, W.; Francis Graham Bennett, Brighton; William Henry Vipan, Ely, Cambs.; Edwin Mason Sheldon, Liverpool.

The following gentlemen, also on September 15, passed their First Examination:—

Charles George Edmonds, St. Thomas's Hospital; Francis Wilton, St. Bartholomew's Hospital.

At the recent examination for the Prizes in Botany annually given by the Society of Apothecaries, the successful candidates were:—

First, Robert Shingleton Smith, King's College, "a gold medal;" second, George Rolph Raine, Guy's Hospital, "a silver medal and a book."

The examination for the Prizes in Materia Medica and Pharmaceutical Chemistry will take place on Wednesday, the 19th, and Friday, the 21st October.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ARMSTRONG, LUKE, M.R.C.S. Eng., has been appointed Lecturer on Anatomy and Dissections at the College of Medicine, Newcastle-upon-Tyne.

ARNISON, WILLIAM CHRISTOPHER, M.D., Durham, has been appointed Lecturer on Botany and Vegetable Physiology at the College of Medicine, Newcastle-upon Tyne.

EMBLETON, DENNIS, M.D., Durham, has been appointed Lecturer on the Principles and Practice of Physic at the College of Medicine, Newcastle-upon-Tyne.

JACKSON, Mr. J. S., has been appointed Dispenser to the North Staffordshire Infirmary, Etruria, Stoke-upon-Trent.

MURRAY, WILLIAM, M.D., Durham, has been appointed Lecturer on Physiology in the College of Medicine, Newcastle-upon-Tyne.

NESHAM, THOMAS C., M.D. Edin., has been appointed Lecturer on Anatomy and Dissections at the College of Medicine, Newcastle-upon-Tyne.

PHILIPSON, GEORGE H., M.B. Cantab., has been appointed Lecturer on Pathological Anatomy at the College of Medicine, Newcastle-upon-Tyne.

ROGERS, WILLIAM, G., M.R.C.S. Eng., has been appointed Physician's Assistant at the Manchester Royal Infirmary and Dispensary.

TURNER, SIDNEY, M.R.C.S. Eng., has been appointed House-Surgeon to Guy's Hospital.

WATSON, JOHN, M.R.C.S. Eng., has been appointed Lecturer on Anatomy and Dissections at the College of Medicine, Newcastle-upon-Tyne.

DEATHS.

ASTLE, EDMUND, Surgeon, R.N., at Newcastle-under-Lyme, Staffordshire, on August 30, aged 65.

BATES, WILLIAM, Surgeon, at Uppingham, Rutlandshire, on August 31.

CHADWICK, FREDERICK R., M.R.C.S. Eng., at Burnham, Somerset, on September 12, aged 51.

DRUMMOND, JOHN, R.N., Inspector-General of Hospitals and Fleets, at Dover, September 17, aged 72.

DUKE, WILLIAM, M.D. Oxon., of Grand Parade, St. Leonards-on-Sea, on September 6, aged 59.

FREEMAN, GEORGE, M.D., at Greenwich, Kent, on September 13, aged 24.

HAMERTON, FREDK. ACKLAND, M.R.C.S. Eng., at Camden-town, London, on September 13, aged 38.

JARDINE, ARTHUR DAVID, Surgeon, at Milton-terrace, Chatham, on September 5, aged 24.

NIXON, G. F., M.D., at Stanger, near Cockermouth, Cumberland, on August 11, aged 27.

HEYS, JAMES, L.S.A., at Gedney Hill, Wisbeach, Lincolnshire, on August 16, aged 67.

KELLO, GEORGE, L.F.R.S. Glasg., at Biggar, Lanarkshire, on August 24, aged 70.

STEWART, CHARLES, M.D., Surgeon 34th N.I., at Jhansi, Bundelcund, Bengal, on August 6.

SWANN, WILLIAM, Surgeon, at Farnsfield, Nottinghamshire, on August 25, aged 70.

WOOD, GEORGE E. WILMOT, M.D. Camb., at St. Germains, Paris, on September 9, aged 58, formerly of East Sheen, Surrey.

THE CHAIR OF SURGERY AT EDINBURGH.—We are informed that Mr. Spence is to be Professor Miller's successor in this chair. Mr. Spence is well known as having made a high reputation as a teacher of Surgery in the Extra Mural School, and as one of the most successful operators and best practical Surgeons of the day.

THE PORTRAIT GALLERY OF THE ROYAL COLLEGE OF PHYSICIANS.—We understand that a valuable portrait in oil, painted in 1809, a Kit-cat, of the late Dr. William Saunders, F.R.S., has been presented to the College by his son, John James Saunders, Esq., of The Laurels, Blackheath. Dr. Saunders was the author of two valuable works—"A Treatise on Diseases of the Liver," and on "Mineral Waters."

HORSE GUARDS' ENGLISH.—The following is the first paragraph of a circular memorandum issued by the Deputy Adjutant-General, addressed to the army at home and abroad:—"Horse Guards, S.W.—August 27, 1864.—His Royal Highness the Field Marshal Commander-in-Chief, with the concurrence of the Secretary of State for War, approves of the transfer to the new brigade of Foot Artillery, or to the staff, of the 3rd Assistant-Surgeons of all Infantry regiments, in India, *as* have still three."

Dr. Russell Reynolds, Professor of Clinical Medicine at University College Hospital, has been elected Member of the German Academy of Naturalists. The diploma was handed to him on Monday last, by Dr. Beigel, in the name of the president, Professor Carus, at Dresden. The Academy is one of the oldest in Germany; the members are the most eminent men in natural philosophy and Medicine all over the globe, and the well known "Nova acta Academiæ Cæsareæ Leopold naturæ curiosorum" form a depository of the most important and valuable essays and works, both in natural philosophy and Medical science.

Pedestrian Feat.—Match for Fifty Pounds.—Lately a walking match for £50 took place on the Uxbridge-road between Mr. Henry Capes, a Surgeon, and Hayes, a celebrated walker. The distance was six miles, Mr. Capes giving his opponent three minutes' start. When within a short distance of home, Mr. Capes came up with his adversary, passed him, and won easily. Mr. Capes walked the six miles in fifty-two minutes, Hayes in fifty-seven.

Poisoned by Spirits of Naphtha.—On September 12 Mr. Richards held an inquest touching the death of Samuel Neal, aged 28 years. J. Neal, brother of the deceased, said that last Saturday evening his brother returned home to No. 4, North-street, Whitechapel. He was very ill, and he expired the next morning. He was an assistant to a wholesale druggist, and had been addicted to drink for the last eight years. Dr. Lewellyn said that he had made a post-mortem examination of the deceased. The lungs were congested, and the coats of the stomach were inflamed from drinking spirits of naphtha. The deceased had evidently been in the habit of satisfying his craving for drink by diluting the spirits of naphtha and spirits of wine, and drinking them. He had expired from the effects of taking an overdose of spirits of naphtha. A verdict in accordance with the Medical evidence was returned by the jury.—*Times*, September 13.

Ancient Sepia.—Mr. Moore, in his late address to the British Association on the geology of the south-west of England, gave some curious details of the fossils met with in the neighbourhood of Bath. He produced specimen stones from the neighbourhood of Bath; they were about five inches in diameter and six or seven long; each contained a specimen of some kind of fish. He said he could tell by the appearance of the stones what they would contain, and he broke some to show this, and in each case the fish Mr. Moore previously indicated was found. But the most interesting specimen was the one which contained the cuttle fish. When the stone was broken open not only was the cuttle fish discovered, but the inky fluid—the sepia—was discovered as in a fish of the same kind that might be taken out of the sea at the present day. There was as much of it as would fill an ordinary-sized ink bottle, and Mr. Moore smeared a portion of it over a piece of white paper, making it as black as ink. He then produced some very perfect specimens of ichthyosauri, found in the neighbourhood of Bath, and a specimen of a fish about the size of a salmon, of six or seven pounds weight. So perfect was it in shape, that but for its colour it might have been handed by mistake to the cook to dress, and yet it must have been millions and millions of years since it lived. In the mammal drift which entirely surrounds Bath, Mr. Moore said remains of the mammal tribe were very abundant, and he exhibited many interesting specimens.

Abominable Hoax.—Before the Lincoln County Court on Monday, Mr. William O'Neill, a Physician, brought an action against Mr. Theophilus W. Pauli, to recover the sum of three guineas, as compensation for loss occasioned by his being made the subject of a hoax. On the 18th of August last, Dr. O'Neill received a letter through the Lincoln Post-office, purporting to be from Mr. John Parker, of Fulbeck, a village fourteen miles distant from Lincoln, stating that he would feel greatly obliged if Dr. O'Neill would come over on the following day and see his wife, who was seriously ill. The Doctor, believing the letter to be genuine, hired a conveyance, and went over to Fulbeck, but on reaching that place he found that no such person existed in or near the village. He came to the conclusion that he had been made the subject of a cruel hoax. After riding about fifty miles, and spending eight hours in his bootless journey, the Doctor returned to Lincoln, and on carefully scrutinising the letter it struck him that it was in the handwriting of the defendant, with whom he had previously had some correspondence. He also consulted several friends, and they were of the same opinion. Dr. O'Neill then placed the matter in the hands of his solicitor, who wrote to the defendant, stating that if three guineas, the amount of the expenses incurred by the journey, were not paid, and an apology made, legal proceedings would be commenced against him. The same day the defendant replied to this, denying the authorship of the letter in the most indignant terms. The letter was produced on the part of the plaintiff, as was also another written by the defendant relative to a business matter. A number of witnesses were examined, all of whom were of opinion that the handwriting was the same in both letters. For the defence a dozen witnesses, one of whom had dispensed medicine for several years for Mr. Pauli, swore distinctly that the letter was not in the defendant's handwriting; and on Mr. Pauli being called into the box, he swore that he was not the writer, and was totally ignorant of its being sent. The jury (composed of five tradesmen of the city) returned a verdict for the plaintiff—damages, three guineas. If the jury were convinced as to the guilt of the defendant, ten times the damages awarded would have been too little.

Congress of Ophthalmologists at Heidelberg.—The annual meeting of Ophthalmic Surgeons, now held regularly at Heidelberg on the 3rd, 4th, and 5th of September, was this year more numerously attended than any preceding one Among the more distinguished oculists present were R. von Gräfe, Donders, Arlt, Ruete, Zehender, Giraud-Teulon, etc., whilst our own country was represented by Critchett and J. Z. Laurence. Several papers of considerable interest were read. Dr. Lebert gave an elaborate description of the Vascular System of the Eyeball. Professor Coccius gave an exposition of the Structure of the Vitreous. Several members, amongst others von Gräfe, testified to their having seen distinct independent and primary inflammations and suppurations in the vitreous. Professor Jacobson, of Königsberg, brought before the Society his further experience of an operation for cataract, of which he had already published an account. He asserted that of 140 eyes which he had operated on he had only lost three—a truly surprising result. He incidentally mentioned that he was in the habit of allowing his patients during the operation to inhale from four to six ounces of chloroform, a statement which elicited much astonishment, which was increased by his stating he on one occasion kept a man aged 83 two hours and a-half under the influence of chloroform, during which time the patient inhaled sixteen ounces! Professor Jacobson's paper led to a long discussion on the causes generally of want of success in the operation for cataract. The general feeling of the meeting appeared to be that iridectomy, as an exceptional procedure, was best calculated to prevent many of the dangers of the operation. Professors Arlt and von Gräfe thought iridectomy specially indicated in difficultly dilated pupils, a large lens in comparison with the section and cataracts with soft friable cortices. The only disadvantage von Gräfe has found from the iridectomy is a certain difficulty the patient experiences in precisely localising himself. Mr. Critchett read a paper on a Modification he had found very useful in the Conformation of Schuff's Cataract-spoons. Owing to the exhaustive discussion on cataract operations, consequent on Professor Jacobson's paper, Mr. Critchett's was not discussed at the length its interest demanded. Dr. Warlomont narrated a case of that enigmatical disease termed Chromidrosis. He was fully convinced of the reality of the disease in this case, which he had watched most narrowly. However, von Gräfe was not convinced; "it is absolutely impossible," he said, "to detect these 'escamoteurs' (cheats)." In two cases of his own he also thought the disease a real one, but when the colouring matter on the eyelids was examined it turned out in one case to be iron, in the second carbon! Von Gräfe communicated some results he had obtained from chlorine water drops. He had found them especially useful in the contagious forms of ophthalmia and cases of pannus. In a case of opacity of the cornea that had resisted every treatment, including syndectomy, the chlorine water had considerably removed the opacity. Mr. J. Z. Laurence gave an explanation of the principle of his new reflecting ophthalmoscope. Dr. Giraud-Teulon had brought one of Mr. Laurence's ophthalmoscopes from the âtelier of M. Nachetz, of Paris, for Professor Knapp, of Heidelberg, who exhibited its results in the human subject to the members of the society. Its simplicity as a means of demonstrating the internal appearances of the eye to student and the highly stereoscopic character of the image were much spoken of. M. Javal, of Paris, read one of the most interesting papers of the meeting. Its object was to demonstrate a method he had successfully em-

ployed to cure strabismus without an operation. This consisted in placing two wafers at variable distances, one on each side of the diaphragm of a stereoscope, and gradually accustoming the patient to exercise his binocular vision by making him unite the two images by exercising his converging powers. A banquet at the Hôtel Schrieder and a visit to Heidelberg Castle, which was brilliantly illuminated in the evening, terminated the interesting and instructive meeting.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A Country Surgeon.—We are informed that the book is out of print.

Mr. W. E. C. Nourse's able pamphlet shall be noticed next week.

Reviews of Miller, Erichsen, Gant, and Hilton, and of the "Nouveau Dictionaire de Médicine et de Chirurgie Pratique," are in type, and shall appear immediately.

Dissector.—For dissections—Ellis's "Dissections," Heath's "Practical Anatomy," Holden's "Dissections;" for injecting—Beale's "Microscope in Medicine."

An Anxious Parent.—Your son, having passed the Preliminary Examination at the Hall, is exempted from that ordeal at the College of Surgeons, and can enter on his Professional studies in October next. The Registration at the College commences on Monday, the 3rd proximo.

Mrs. Baines.—We have the greatest respect for this lady's unremitting exertions for the benefit of her fellow-creatures, and we have already noticed her pamphlets on Wet-nursing, on Infant Mortality, and on Milk. Whilst cordially agreeing with her in the objects she aims at, we must claim the liberty of differing in some details. The plain fact is, that excessive infant mortality in this climate is a sign of unchaste, or ignorant and poor mothers. Will Mrs. Baines tell us how young women are to be taught to look to *married* life, to the honour and happiness of a home? There is something wrong in their training; but so long as girls are seduced, so long there will be abortion, infanticide, wet-nursing, and the slow deaths of *love babes*.

Received.—The *Delhi Gazette* of July 7, and the *Times of India* of July 23 and 25. We thank the conductors of the English press in India for their continued generous advocacy of the interests of the Medical officers of the army.

We have received some communications relative to the social position of Medical officers. We are bound to acknowledge that their position in *certain* regiments appears to be of the most unsatisfactory nature, and such as must be unbearable to men of education and refinement. It certainly appears that the treatment accorded to Medical officers is very different in different regiments. If this be so, all we can say is that the members of messes in which the Medical officers are wantonly and systematically snubbed forfeit their title of "officers *and* gentlemen." We rejoice to know, however, that this is not the case in many, we believe most, infantry regiments. One of our correspondents says—"Let a committee be appointed to inquire into the Surgeon's position at the mess table, etc." In the meantime we repeat what we have always advocated—that the authorities must definitely fix the position of the Medical officer, on the basis of the Royal Warrant of 1858, and then must fairly, as well as scrupulously, accord to him all the rights and privileges of his rank—military command alone excepted.

Acupuncture in Facial Neuralgia.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In your number for September 10, there appears an interesting communication by Mr. Craig, Ayr, on the subject of the treatment of facial neuralgia by acupuncture. Having myself witnessed the good effects produced by this remedial agent in two cases of the above painful affection, I hasten to lay the facts before your readers.

Case 1.—Miss M. F., a middle aged woman, of a spare habit and well-marked nervous diathesis, has suffered since the beginning of January of this year from frequent attacks of facial neuralgia. The pain which she endured was intense, and was referred to the right side of the brow. It was of a shooting, lancinating character, and frequently recurred for several nights in succession, effectually banishing all sleep till the morning. Iron, quinine, and other remedies had been administered, but with no beneficial results. Having seen Mr. Craig's work on "The Influence of Variations of Electric Tension as the Remote Cause of Epidemic and other Diseases," in chap. 14 of which he adduces several cases of facial neuralgia where acupuncture had been employed by him, and had proved most successful, I suggested to him that this appeared to be a suitable case for the adoption of his mode of cure. Accordingly, on the evening of June 25, as soon as the pain was experienced, three needles were inserted in the region of the supra-orbital nerve. In less than ten minutes the patient expressed herself better and stated that the pain was entirely gone. The needles were, however, allowed to remain in till the morning. Since the above date she has not up to the present time had another attack of the disease.

Case 2.—Mrs. A., aged 38, of a delicate, anæmic appearance, had suffered during a period of six weeks from several attacks of neuralgia in the region of the left infra-orbital nerve. The pain was of a lancinating character, and extended over the cheek and lower eyelid of the affected side. After trying various remedies, but to no purpose, I inserted two needles, and allowed them to remain *in situ* for a couple of hours. At the expiration of that time, when I returned to withdraw them, I was informed that the pain had entirely ceased. A month afterwards I chanced to see her, and she stated that she had not experienced a recurrence of the disease since the introduction of the needles.

Mr. Craig, in his treatise to which I have before referred, gives the *rationale* of this plan of treatment, also illustrations of the method of applying the needles, and moreover claims for himself the merit of having been the first to employ acupuncture in this particular and oftentimes most obstinate form of neuralgia. I am, &c.

Ayr, September. Robert B. Erskine, M.D., and L.R.C.S.E.

Cyanosis with Cardiac Systolic Murmur.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Dr. Richardson, in the *Medical Times and Gazette* for last week, mentions in his excellent delineations of the Medical History of England two cases of cyanosis, in which he finds for the first time a cardiac systolic murmur associated with the disease. May I be permitted to corroborate his observations in the history of the following case?—

Some years ago, when residing with a Medical friend in Monmouthshire, I had occasion to visit a neighbouring town; when sauntering about, waiting a return train, I observed a little boy amusing himself on the pavement of one of the streets; the peculiar bluish colour of his skin arrested my attention, and I diagnosed cyanosis as the cause; the child soon thereafter entered a beershop, I followed and called for a pint of beer, being anxious to know something more about the case, as it was the first of the kind I had seen; the landlady, the child's mother, speaking English but imperfectly, asked a gentleman who was in the house to converse with me. I let him know I was a Medical man, and asked to be allowed to strip the child in order to examine his chest. My attention was more particularly directed to the region of the heart, where I had no difficulty in finding a loud, harsh, systolic bruit. I do not remember whether I noted any other peculiarity at the time, such as unnatural coldness of the skin, dyspnea, palpitation, etc., but have a fair remembrance that I was told the child had suffered all along from breathlessness; I was also informed that they had been to a number of doctors with the boy, some of them at a considerable distance, and that he had taken all sorts of doctors' stuffs. I told them that the disease was not curable by medicines, and not to give the child any more doctors' stuffs, but to give him good nourishment, and to clothe him with flannel.

Blantyre, Sept. 9. I am, &c. T. Downie, M.D.

A New Pelvimeter.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—My attention was drawn to the following paragraph in the report, inserted in your last week's journal, of the meeting of the Obstetrical Society, held on July 6 last:—"Dr. Greenhalgh exhibited a pelvimeter, made by Mr. Ferguson during the year 1859, which so closely resembled the instrument lately described as 'a new pelvimeter,' the invention of Drs. Earle and Murphy, that he felt it due to his colleague (Dr. Harris) to state this instrument was devised by, and manufactured for, him nearly five years ago." I was not present at the meeting, but if Dr. Greenhalgh did speak to that effect he has made one or two mistatements, which I hope in justice to myself to be allowed to correct. I trust to prove by simple statements of fact, that instead of the instrument having been lately described as a new pelvimeter, so far as I am concerned, an account of it was published more than three years ago; that instead of its being, "the invention of Drs. Earle and Murphy" (a sentence which would convey the erroneous impression that the latter gentleman and myself had placed our heads together and devised the pelvimeter between us), I invented it three years before Dr. Murphy.

In the latter part of the year 1860, I had the pelvimeter made by Mr. Matthews, of Portugal-street, and it was kindly exhibited by Dr. Meadows at a meeting of the Obstetrical Society, held May 1, 1861. A description and an engraving was published in the *Transactions* of the Society for that year (vol. iii.). In the early part of the present year, Dr. Murphy brought out a pelvimeter, not merely similar in principle, but also in construction, to mine. Tha blades which are the *sine qua non* of the instrument are as like mine as two peas are to each other. The only point in which the instruments differ is in the mode of registering. Dr. Murphy's has to be registered by turning a screw, whereas mine is self-registering. The superiority of the latter is so evident that it requires no explanation. It is but due to Dr. Murphy to say that I have received a letter from him in which he fully acknowledges my having forestalled him in the invention. As regards Dr. Harris's pelvimeter, supposing it to resemble mine as Dr. Greenhalgh says it does, and that he did invent it one year before me, I must remind him that he has never published an account of it, although five years have nearly elapsed, and unless it had been brought into notice, first by myself, and subsequently by Dr. Murphy, the Profession would never have known that anything of the kind had been invented.

I may conclude by saying that at the time when I devised my pelvimeter, the only instruments for measuring the pelvis that I had ever heard, seen, or read of, were Bandelocque's calipers and the pelvimeters of Contouli and Kewisch. I am, &c.

92, Newhall-street, Birmingham, Sept. 6. J. Lumley Earle.

The Cure of Hysteria by Moral Treatment.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In reference to some valuable remarks of Dr. Wilks in a recent number, on "The Cure by Moral Treatment," of certain forms of hysteria, the following history, which occurred many years ago in my practice, may not be without interest:—

A young lady engaged to be married was seized with lock-jaw, for which she underwent a variety of treatment by medicines, and was taken from one watering-place to another, but without benefit. Her general health continued good. This had gone on for many months, when I was first sent for in great haste one winter evening. As her home was twenty miles off, I did not get there till late. The weather was severe, and the ground covered with snow. On entering her room, I found her in bed, the curtains of which were all drawn up, the door was kept wide open, and not the door only, but a large window also, severely cold as the night was. Her friends and attendants were watching her with deep anxiety, and one was engaged in constantly fanning her face. As I drew near her she was seized with strong convulsions; these gradually subsided. As I sat by her bed-side I observed her carefully adjusting her disordered hair with one hand. I thought, the convulsion has not rendered you unconscious of your personal appearance, and at once resolved upon my plan. My first question was what the fanning was for. Answer: "She is threatened with suffocation the instant we leave off. By relays we have kept it up for two days and nights with scarcely an interval." I said,

"Please to take away the fan at once." I then turned to the open window and said, "We shall all be starved if that window is kept open; let it be closed." Answer: "She would die for want of air if it were shut." I said, "I should be very sorry for that, but the window must be closed." No sooner was this done than a violent convulsion ensued. Three persons ran to hold her down. I asked, as if greatly surprised, why they held her down. "She would throw herself off the bed if we did not prevent her." "Well," I said, "and if she did she might break her arm from this high bed; but she must take the consequences. She shall not be held down;" and I sent them to another part of the room. The convulsion soon ceased, and as I was the only one near her she whispered, "You are treating me like a child." I replied, also in a whisper, "Yes, and will do so as long as you act like a child. You know you can prevent all this if you choose." She was silent. In the meantime her friends were grouped round the fire anxiously watching her, and she them. To prevent this I had the curtains drawn closely round the bed, and so ended my discipline. In a couple of hours she was quiet. I only allowed her maid to remain in her room that night. She fell asleep without a particle of medicine, and did not wake till the morning. I then found she could half open her mouth. In a few days there was no more lock-jaw. I need scarcely say it never recurred; and not long afterwards she made a happy marriage.

I am, &c. M.D.

The University of St. Andrews' M.D. Degree.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I should not have troubled you any more on the above subject were it not that I perceive that Mr. D. P. Morris' ignorance is so great with regard to the history and position of this ancient seat of learning. Strange that he should have been a resident of any part of Scotland and not know that the University of St. Andrews is a *bonâ fide* University! Stranger still that he should have been a student at another and younger Scotch University, and yet have remained ignorant of the fact! But most strange when, as I gather from the Medical Directory, if he were at Edinburgh at all, it must have been at the time when the talents and researches of one of the greatest physiologists that ever lived (an alumnus of Edinburgh University) were being devoted to enhancing the value of the St. Andrews' M.D. degree. Well, Sir, allow me to inform Mr. D. P. Morris that the University of St. Andrews was founded in 1404 by Henry Wardlaw, Bishop of St. Andrews, who was preferred to that see by Pope Benedict XIII. He became its first Chancellor, and has been succeeded by archbishops, dukes, and earls to the present time, when the Duke of Argyll holds the office. The University consists of three Colleges, having a staff of professors, composed of Cambridge and Oxford graduates, with others of the Scottish Universities. That the University and Madras College afford peculiar advantages for education. That it is famous in Scotland as a school of classics, mathematics, and theology; but having no Hospital or facilities for Medical study, and being so near Edinburgh, it cannot aim at being a great Medical seminary.

Dr. Reid, the justly celebrated physiologist, having lectured in Edinburgh until the close of the session 1840-41, was appointed Professor at St. Andrews, and there he laboured till his death in 1849. His aim, in conjunction with others, was to make the M.D. degree a first-class one. He was succeeded by Dr. Day, M.A. Cantab., F.R.S., Emeritus Professor of Medicine, an able and scientific Physician, whose recent retirement from the professorial chair gave the Medical graduates an opportunity of testifying their appreciation of his efforts on their behalf.

The Professor of Chemistry during this time was Mr. Connell, F.R.S., who was appointed to the chair in 1840 by the patron, the Earl of Leven, and has just been succeeded by Dr. Heddle.

The Assistant Examiners for the M.D. degree were always selected by the University with great care as men whose reputation would add to the value of the degree conferred—*ex. gr.*, Drs. A. Wood, W. T. Gairdner, of Edinburgh, G. Buchanan, Struthers, Anderson, and Duncan.

Even Practitioners possessing two or three diplomas were required to pass an examination in Celsus and in Greek, so far as defining scientific and Medical terms derived from that language, and to write prescriptions with accuracy. Next, printed questions had to be answered on (1) Chemistry and Materia Medica, (2) Anatomy and Physiology, (3) the Practice of Medicine, (4) the Principles of Surgery, and (5) Midwifery and the Diseases of Women and Children. The candidates were likewise required to write a short commentary on a Medical, on a Surgical, and on a midwifery case, and after all this was done came the *vivâ voce* with five Examiners.

Students presenting themselves had to produce certificates of specified courses of lectures, dissections, Hospital practice during four years, clinical Surgery, and clinical Medicine, from Medical schools and Hospitals recognised by the Universities of London or Edinburgh, or by the College of Surgeons of England. Now, Sir, I ask you wherein the above is inferior to the amount of training and knowledge required by any other *Senatus Academicus* in Scotland for their M.D. degree of the past? It is quite true that the University of Edinburgh demands a thesis from its candidates, but that goes for what it is worth. I have had pupils who have entered King's College, London, and the University of Edinburgh; I am informed on the papers given in examinations for the M.D. of the latter body, and I am prepared to prove that the amount of information required in the several subjects is not one iota more than that for the same degree at the University of St. Andrews.

Now, with regard to the present requirements of the several Scotch Universities, they are on a par, which may be seen by a reference to the Medical Directory for this year.

But notwithstanding all this, Mr. D. P. Morris' spleen is directed simply against the graduates of the one University practising as General Practitioners. Why, Sir, if it be a false and pretensive thing for a graduate of one University to practise in a general way, it must be so for a graduate of any and every other, *cæteris paribus*, and let me inform Mr. Morris that there is not a single University in Great Britain and Ireland that has not some of such among its graduates. As for London and Edinburgh graduates, there are to be found among them keepers of shops and holders of the commonest Medical appointments. I would, therefore, respectfully suggest to that gentleman that when he again offensively rushes into print, having given us his proposition he will work it out in a somewhat more honest and consistent way. As an instance of how differently—the difference being the result of a knowledge of the matter on the one hand, and ignorance or prejudice on the other—the value of the same degree is estimated, I was some years since attending the children of a Naval Medical officer of the highest rank but one in the service, and himself an Edinburgh graduate. He advised my graduating. "If you choose," said he, "to go in for a good examination, go to St. Andrews, well read up, for some of my Assistant-Surgeons have just passed an excellent one there; or if not, go to the University of ———, which will not require you to have devoted so much previous time to study." One point more, and I have finished. Mr. Morris writes of the St. Andrews' degree being cheap in a pecuniary sense. Why, Sir, the graduation fee was equal to that of all the examination fees at the University of London, from the matriculation to the full M.D. examination, and now I believe it is double for Practitioners. And when the expenses connected with the journey, etc., together with absence from our practices, are taken into consideration, his assertion of cheapness in a pecuniary sense is *vox et præterea nihil*. Apologising for again troubling you on this subject,

I am, Sir,

Joannes, M.D. St. Andrews University.

P.S.—I respectfully advise your correspondent's perusal of the St. Andrews University Calendar, Paton and Ritchie, Edinburgh; also of Dr. Braithwaite's "Remarks on the University of St. Andrews' M.D. Degree," Simpkin and Co., London; "The Life of Dr. John Reid, late Chandos Professor of Anatomy and Medicine in the University of St. Andrews," Simpkin and Co., London; and also of the *Medical Times and Gazette* for February and March, 1861.

COMMUNICATIONS have been received from—

Mr. C. Slocombe; Dr. Eastlake; Mr. R. Hulme; Dr. Burder; Mrs. M. A. Baines; Dissector; Mr. W. G. Tiley; Dr. J. Thomson; Dr. J. W. Irvine; Dr. T. Downie; Mr. J. Z. Laurence; Mr. Hopley; M.D.; Apothecaries' Hall; Dr. J. Lumley Earle; Dr. Ormerod; Dr. W. Craig; Mr. G. W. Armstrong; Dr. D. R. Haldane; The Royal College of Physicians, Edinburgh; Mr. E. Atkinson; M.R.C.S.; The Registrar, Faculty of Physicians and Surgeons, Glasgow; Dr. Henry Ussher; Dr. H. Beigel; Dr. J. Cameron; Dr. W. Carr; Umpire; Mr. Mary; Messrs. Horniman and Co.; A Staff-Surgeon; Dr. John C. Thorowgood; Dr. McCall Anderson; Joannes, M.D. St. Andrews; Medicus; A Country Surgeon; Mr. Dixon Adams; Bengal Medical Service; Dr. S. B. Partridge; The President of St. Thomas's Hospital; Dr. R. B. Erskine; Mr. Thomas Burnie.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 17, 1864.

BIRTHS.

Births of Boys, 957; Girls, 911; Total, 1868.
Average of 10 corresponding weeks, 1854-63, 1680·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	610	626	1236
Average of the ten years 1854-63	631·4	619·3	1250·7
Average corrected to increased population..	..	..	1192
Deaths of people above 90	..	3	3

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa
West ..	463,388	..	2	17	2	3	8	10
North ..	618,210	4	3	9	5	3	23	23
Central ..	378,058	..	2	11	1	..	10	9
East ..	571,158	..	21	14	..	3	26	14
South ..	773,175	5	8	21	4	8	26	25
Total ..	2,803,989	9	36	72	12	17	93	81

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·552 in.
Mean temperature	54·9
Highest point of thermometer	67·2
Lowest point of thermometer	40·9
Mean dew-point temperature	47·5
General direction of wind	S.S.W., S.W.
Whole amount of rain in the week	1·25 in.

APPOINTMENTS FOR THE WEEK.

September 24. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

26. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

27. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

28. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

29. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

30. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

ON

SOME CAUSES OF EXCESSIVE MORTALITY AFTER SURGICAL OPERATIONS.

By T. SPENCER WELLS, F.R.C.S.,

Surgeon to Her Majesty's Household, to the Samaritan Hospital, etc.

READ BEFORE THE BRITISH MEDICAL ASSOCIATION AT CAMBRIDGE, AUGUST, 1864.

MR. PRESIDENT AND GENTLEMEN,—When concluding one of the most eloquent, thoughtful, and suggestive addresses in Surgery ever delivered before this Association—after the statement that in Paris "the mortality of great operations has been diminished 10 per cent. in the last twenty years, yet that the mortality of all amputations in the Parisian Hospitals is still about 50 per cent.," while at Oxford, Exeter, and Cambridge three distinguished members of our Association have shown that instead of 50 it is only 13, 14, and 16 per cent.—Mr. Paget said,—"Some of the deaths are preventible," and added that the mortality of great operations must be and "*will be* reduced, if the members of this Association will decide that it *shall be.*"

It would be very easy to add many facts to those just cited to prove that some of the mortality after Surgical operations might be avoided or prevented—in other words, that the mortality is excessive—especially in the large Hospitals of large cities. A mortality of 39 per cent. after amputations in the Paris Hospitals from 1836 to 1841, including amputations of the fingers and toes (the thigh 62, leg 55, arm 45, forearm 28), was, when announced by M. Malgaigne, regarded as a startling revelation. Yet M. Frelat, carrying on the researches to 1861, shows that the mortality was by no means over-rated, for 1144 amputations in those later years gave 522 deaths, or 45 per cent. In the Glasgow Infirmary, reports of different periods give 36 and 53 per cent. In the Edinburgh Infirmary, 50 per cent. In the large London Hospitals, 25 to 35 per cent.; and yet in smaller Provincial Hospitals it is 13, 14, and 16 per cent.

If we descend a little into detail, we find the same difference of result carried out. Separating primary from secondary amputations, we find the mortality in Paris 50, in London 22, in Massachusetts 12 per cent. Taking secondary amputation of the thigh alone, we have: Paris 60, London 21, Massachusetts 19. Take lithotomy, and we have: Paris 37, London 22, and of 222 cases in English Provincial Hospitals, 12 per cent. Herniotomy shows a mortality in Paris of 60, London 50, and Wurzburg 43 per cent. Results so different from the same operation surely prove that in some places the mortality must be excessive, and encourage us to hope that by discovering the causes of excess we may reduce it.

All these facts having been collected in Hospitals, the first and most material inquiry relates to the mortality in Hospitals of different sizes. McCulloch, in his "Statistics of the British Empire," has shown that for every 100 cases treated in County Hospitals about 4 died, while in the London Hospitals about 9 died in every 100. One most eminent medical statistical authority has recently stated that "the mortality of the sick who are treated in large General Hospitals in large towns is twice as great as the mortality of the sick who are treated in small Hospitals in small towns. It remains to be seen whether the mortality in small Hospitals is not twice as great as the mortality of the same diseases when they are treated in clean cottages."

However the large array of facts upon which Dr. Farr's conclusions are based may be acknowledged to bear them out fully, partially, or not at all—whatever allowance may be made for the greater severity of cases attracted to large Metropolitan Hospitals by the celebrity of some of the Physicians and Surgeons to those institutions—however great must be the allowance made for the number of slight cases admitted in some of the smaller country Hospitals, especially in the Medical division, we have good reason to believe that the mortality after certain operations which must be the same wherever they are performed,—such as secondary amputation and lithotomy,—is much greater in large city than in small country Hospitals, and that the mortality of the same operation in Hospitals of the same city varies very much with the situation, size, and crowding of the Hospital.

The first conclusion, therefore, is that Hospitals, without being so far removed from the centres of population as to be accessible with difficulty, should be surrounded by open spaces, and should not be too large for the number of patients. And whatever may be the size of the building, the fewer the number of floors or stories in it, the less is the probability of excessive mortality.

In the very interesting account of this town, with its University and Colleges, for which we are all so much indebted to Dr. Humphry, I find the following passage:—

"Addenbrooke's Hospital, founded in 1719, by the will of Dr. John Addenbrooke, of St. Catherine's Hall, was insufficient for its purpose, and ill-constructed. It has lately, therefore, been pulled down, and is in process of re-erection. It will be an extensive, commodious building, with spacious wards having windows on both sides, convalescent rooms, etc. The accommodation for out-patients, other offices, and one ward, will be on the ground floor; wards for Medical patients will be on the first floor; *and above will be the Surgical wards* and operating-room."

Supposing this plan to be carried out (which, for the credit of the future Surgery of Cambridge, I sincerely hope it will not be), I think we might predict very confidently that the low mortality hitherto so honourable to the institution and its Surgeons, will rise much nearer to the high rate of our city Hospitals. In a recent discussion in the French Academy, M. Malgaigne showed that the mortality from erysipelas and allied affections associated with overcrowding is increased when Surgical wards are placed over other wards; and Velpeau supported the statement when he admitted that erysipelas was more frequent in the Charité among the females than among the males, the female wards being on the second floor, immediately over those occupied by the men. Women after delivery are so nearly in the same condition as patients after operation, that we may learn a great deal from the mortality in Lying-in Hospitals, or in the Maternity Department of large Hospitals, and we find the same increase of mortality in the upper wards. Several years ago the lying-in wards of St. Louis were on the ground-floor, hemmed in on every side, and almost dark; still the mortality was lower than in other Hospitals, puerperal peritonitis being especially rare. At the time of the construction of the Pavillon St. François, the lying-in wards were removed to the first-floor, which was isolated and very light. The latest sanitary improvements were adopted, yet the mortality, instead of diminishing, rose rapidly to equal that of other Lying-in Hospitals.

But lessening the number of large Hospitals, and increasing the number of small Hospitals, and having the wards all on one story, would all be useless if there are too many beds in a ward. It is very possible that a large Hospital, with large wards and beds widely apart, would be a far better place for the sick than a small Hospital in which many beds are crowded into small wards. Indeed, by lessening the size of a ward we multiply the surfaces and angles to which putrescent matters or organic poisons may adhere. And it is extremely probable that we may have to go farther than this, and not only lessen the size of Hospitals, the number of floors in the building, the number of wards, and the number of beds in each ward, but also *isolate* the patients in all cases when contagion or infection is probable. Not only must communication of wards with each other be avoided, but there must be separate wards, containing one, or at most two beds, for patients recently operated on, and in Lying-in Hospitals for women recently confined, before we can hope to reduce mortality from the excessive to the unavoidable rate.

Now, to show that these lessons of modern sanitary science are borne out by the most recent discoveries in physiological chemistry, let me turn for a moment to the remarkable labours of Pasteur,—all made known within the last five years. His memoir on "Alcoholic Fermentation," in 1860; "On the Organised Corpuscles existing in the Air," and his "Examination of the Doctrine of Spontaneous Generation," in 1862. In the same year his "Studies on the Mycoderms," and the "Manufacture of Vinegar;" and in 1863 his "Examination of the part attributed to Oxygen in the Destruction of Animal and Vegetable Matters after Death," and his "Researches on Putrefaction," have all a very important bearing upon the development of purulent infection and the whole class of diseases most fatal in Hospitals and other overcrowded places.

Commencing by purely chemical researches into the phenomena which accompany the decomposition of organic bodies, M. Pasteur was soon led into the field of physiology. He found that fermentation was always associated with the existence and development of certain microscopic beings; and he was led to inquire whether the generation of these living corpuscles was a spontaneous act or change, or whether it could only be explained by the ordinary laws of reproduc-

tion. In order to ascertain what germs might be suspended or floating in the atmosphere, he adopted the simple expedient of causing a current of air to pass over gun-cotton—a substance soluble in a mixture of ether and alcohol. The fine fibres of the gun-cotton act as a sort of air-filter, arresting all the solid particles, and the finest powders are found in the solution, and fall slowly to the bottom of the fluid. By careful microscopic examination he found in these atmospheric impurities (1) a quantity of granules of starch, very easily recognisable, and the numbers explained by the abundance of cultivated cereals; and (2) corpuscles which resemble in every particular the germs of the lowest organisms, and vary greatly in size and structure. The germs so collected are fecund. If they are sown in infusions in which any pre-existing germs have been destroyed by ebullition, and which have only been exposed to air which cannot possibly contain any living organism, as it has been passed through a tube of red-hot platinum, an abundance of cryptogamic vegetables or infusorial animacules very soon appear. These are the *Mucors* or *Mycodermes*, which cover the liquid with a greasy or gelatinous pellicle; the *Mucedinea*, formed of small tubes; *Torulacea*, or non-tubular plants, which attach themselves to the bottom of the vessels. The infusoria are small *Monads*, *Bacteria*, and *Vibrios*. The Bacteria, especially the *Bacterium Termo*, exist in the air in immense abundance. This smallest of the infusoria is found also in all putrefying substances. It multiplies in the intestinal canal of man, and is found constantly in the white matter which collects daily between the teeth. In sour milk it is found in company with Vibrios, the most vivacious of the infusoria, whose germs are not destroyed by a temperature of 100° Centigrade. The spores of the *Mucedinea* remain fecund even up to 120° Centigrade. It appears that a short exposure to 130° Centigrade destroys all fecundity even in the most robust; but in nature neither spores, vegetable, nor animal germs are ever exposed to a degree of heat which can render them sterile.

When an organic infusion has been deprived of germs by heat and is mechanically protected from the corpuscles which the air might carry to it, it is as unalterable as an ordinary chemical solution of a mineral. The liquids ordinarily the most prone to fermentation now show no tendency to decomposition—no symptom of life is manifested. It is quite clear, therefore, that the development of living beings in organic infusions is not spontaneous, and that, in the circumstances under which fermentation ordinarily takes place, the germs of the living beings are carried in the atmosphere.

The germination of inferior beings as powerful agents of decomposition has relations as important in the putrefactive as in the fermentative process. Whenever organic matter undergoes change—dies, is decomposed, putrefies—germs are sown which find their nourishment in the remains given up to destruction. Without these germs the immediate principles of living bodies would be almost indestructible; with them, everything which has ceased to live is returned to the atmosphere and to the mineral kingdom. Blood as it issued from the arteries, fresh urine, milk received into close vessels, and open only to air which had been deprived of germs, remained unaltered for three years; but when these liquids were exposed to ordinary atmospheric air, they very soon became covered with mucedinea, bacteria, and monads, and were filled with moving vibrios.

Each form of fermentation or decomposition is associated with the growth and development of some low form of vegetable or animal life. It had long been known that the yeast formed in brewing beer was an organised substance, living, and formed by a mass of cells capable of reproduction by budding; but it was left for M. Pasteur to show that the cells of the yeast really nourish themselves at the expense of the sugary infusion, and transform it, not by a physical or chemical, but by a physiological action; that some substances added to the infusion favour the budding and multiplication of the yeast, others retard, others altogether arrest it—like the albumen of fresh eggs, which kills it, or acts on it as a poison. When alcohol is transformed into acetic acid a vegetable mycoderm (*mycoderma aceti*) is the agent of the transformation. When sugar or lactic acid is converted into butyric acid, the agent is not a vegetable, but a small animalcule, seen in the form of small cylinders or rods, isolated or united into chains of many links, which turn, undulate, and float in every direction in the liquids, and are reproduced by fission. The most remarkable property of these vibrios is that they have the power of living and indefinitely multiplying themselves without oxygen. Not only can they live without air, but air kills them. This peculiarity essentially distinguishes the mycoderms from the vibrios. The mycoderms incessantly feed on oxygen, and when they do not find it in solutions take it from the atmosphere. The vibrios are killed by oxygen, yet it is by them that the butyric and tartaric fermentations are effected.

These are the most simple of the decompositions produced by animalcules which live without free oxygen. They are phenomena which do not differ from what is called *putrefaction* of animal substances. In putrefaction, as in the butyric fermentation, the work of the vibrios is prepared for them by infusoria. In infusions of animal substances no change is observed for about twenty-four hours; then a slight movement may be observed, which is caused by small animalcules *monas corpusculum*, *bacterium termo*—moving in all directions in search of the oxygen in the infusion. If access of air is shut off, the infusoria die as soon as they have consumed all the free oxygen, and fall dead to the bottom of the vessel. But if the infusion is open to the air they find an inexhaustible supply of oxygen at the surface, when they soon form a pellicle of gradually increasing thickness. But as soon as this living pellicle has been formed the germs of vibrios are in their turn fecundated, and these animalcules rapidly multiply in a liquid which contains no oxygen. At the bottom, the vibrios change the organic matters into substances of more simple composition; while at the surface the bacteria and mucedinea burn these new products with the oxygen which they take from the atmosphere, and reduce them to the state of the most simple binary compounds,—water, ammonia, carbonic acid. In the same way after the death of an animal or human body, the vibrios and their germs which have remained in the intestinal canal quite inoffensive so long as the movements and functions of life have prevented their development, commence their office directly after the death of the body which they have inhabited. Shut off from oxygen, surrounded by nourishing food, they pass from within outwards, destroying the substances which surround them. At the same time the germs of infusoria which the air has deposited upon the external surface of the body are developed, and work from the surface inwards. At length the infusoria and vibrios meet. The vibrios are killed by the contact of the air, the infusoria die in their turn as soon as they have consumed all the vibrios, and the work of destruction is then complete.

I have given this rapid sketch of some of the principal results of the researches of Pasteur in order that the influence of atmospheric germs upon our bodies in health and disease may be comprehended. Although the air contains the germs which are necessary for the processes of fermentation and putrefaction, these germs cannot be everywhere present in all forms and equal numbers. In some currents of air there are few, in others many; they are numerous in the lower strata, fewer and fewer as we rise higher and higher, and almost absent at the level of the snow-capped Alps. Air taken on the slopes of Mont Blanc was almost free from germs. On the chain of the Jura they were more numerous, and they increased in quantity as one descended into the valleys and approached inhabited places, becoming most abundant in the air of large cities, where an enormous quantity of organic matter is daily decomposed. Their influence upon the development and propagation of epidemic and contagious diseases has yet to be made out; but something has been done. Many years ago, Dr. Angus Smith led the way by his examination of the air of large cities and of crowded rooms, which other observers have carried on further. M. Chalvet found in the air of the wards of St. Louis a large quantity of starch corpuscles; and he collected a great deal of putrescible organic matter from the walls, windows, and bed curtains, and found that the linen returned from the laundry was still tainted by altered blood, pus, linseed-meal, and other organic substances—probably as capable of infecting as threads charged with vaccine lymph. When watery vapour near a suppurating focus was condensed, it was found to be strongly charged with irregular corpuscles resembling dried pus; and Eiselt, of Prague, found small cells, like pus cells, in the air of a ward where epidemic ophthalmia was raging. The following extract from Chalvet's paper was given in the *British Medical Journal* for July 12, 1862:—

"The atmosphere of a Hospital is no longer a vague expression. The air of it differs essentially from pure air. In 1860 I witnessed the experiments of M. Réveil, and recognised in the most positive manner the presence of organic corpuscles in the apparatus constructed by that skilful chemist. We then observed chiefly cells and the *débris* of epithelial cells;

corpuscles of divers forms, which became yellow under the action of nitric acid; and bits of charpie charged with these corpuscles. Under like conditions we saw, with M. Kallmann, in the laboratory of M. Réveil, organic *débris* incrusted with a granular substance, which gave the reaction of copper. The dust thus observed was collected in an ophthalmic Hospital, where sulphate of copper was largely used as a caustic.

"Dust, collected by dusting the walls of the ward St. Augustine at St. Louis, furnished me with 36 per cent. of organic matter. At another period, in the laboratory of M. Réveil, dust collected from the same quarter yielded 46 per cent. of organic matters, which consisted in large part of epithelial cells, and yielded a horny smell when calcined.

"When wetted, the dusty powder quickly gives off a very fetid smell. Doubtless, the thick layer of dust covering the walls of our old Hospitals may produce gases capable of favouring the transport through the air of corpuscles, which, perhaps, play a very important part in the air of Hospitals."

When commenting on the spread of puerperal fever, M. Trousseau says:—

"These germs may not be developed as readily in all patients, because the conditions of their reception vary infinitely. Some patients, like certain earths, may not receive certain germs. The wind may spread the same seed widely over a country, and yet the grain will not spring up everywhere alike. Here the soil may be too wet; there too dry; here other germs have grown up, and stifled the new seed. Just so is it with morbid germs and ferments. They, individually, require conditions favourable to their development."

Carrying on the analogy between puerperal fever and purulent infection in the various forms which contribute so large a share to the excessive mortality after Surgical operations, and applying the knowledge for which we are indebted to Pasteur of the presence in the atmosphere of organic germs which will grow, develope, and multiply, under favourable conditions, it is easy to understand that some germs find their most appropriate nutriment in the secretions from wounds, or in pus, and that they so modify it as to convert it into a poison when absorbed—or that the germs after development, multiplication, and death, may form a putrid infecting matter—or that they may enter the blood and develope themselves, effecting in the process deadly changes in the circulating fluid.

That these low forms of animal life may seriously affect the blood of the higher orders of animals is clearly proved by the recent researches of Davaine, who has furnished us with the first well-established example of a disease of the blood due to the presence of inferior beings which are capable of development and multiplication in the torrent of the circulation. These creatures (*Bacteria*) differ from the whole class of infusoria which form in putrefied matter, as they disappear completely as soon as putrefaction of the blood commences. The Bacteria are rapid consumers of oxygen, and when they exist in the blood they absorb the greater portion of the oxygen furnished by respiration, and thus hinder the combustion of all the effete and used-up substances which ought to be eliminated from the body. The blood, instead of nourishing the body, nourishes the parasites. Inoculation of animals with fresh blood which contains them leads to their development in the blood of the inoculated animal, not in any special organ. They consist of minute, straight, extremely fine filaments, varying in length from four to twelve-thousandths of a millimeter, and have no spontaneous movement whatever. When the blood putrefies they become flexed in different directions, and then break up and disappear.

M. Davaine was first disposed to consider them as belonging to the filiform infusoria, the bacteria or vibriones, from which they differed only in the absence of movements. In subsequent observation, however, he found a great number of these corpuscles of far greater length than that assigned to bacteria or even vibriones. He now believes that they cannot be properly classed with any of the known species; he considers them to be a well-defined species, resembling the filiform protozoa by their mode of generation and propagation, the filamentous confervæ in form, appearance, and dimensions, and certain ferments by the phenomena which they induce. M. Davaine proposes to term them provisionally merely bacterides. There are considerable varieties in the size of the bacterides observable, without any condition of the inoculated animals explaining the fact. Their number also greatly varies, from myriads found in some instances, to their rare occurrence in others. A very peculiar condition in animals affected with carbuncular disease is the disposition which exists for the globules of blood to become agglutinated to each other, so as to present little islets in the serum. When the blood infected with bacterides begins to putrefy, these agglutinated globules separate again. The blood of the capillaries is far richer in bacterides than is that of the large vessels; but they have not been found to have passed from the mother to the fœtus, although existing in prodigious numbers in the placenta. When putrefaction has commenced and the bacterides can be no longer recognised, the blood ceases to possess the power of inoculating the carbuncular disease, although if used in sufficient quantity it may still cause the death of the animal, with other accompanying phenomena. The carbuncular disease, or splenic apoplexy, as observed in sheep, and which first led to the discovery of the bacterides in the blood, can only be transmitted by inoculation when the blood is fresh. The power which the blood possesses to communicate the disease continues for a longer or shorter time after death, according to the temperature, this faculty disappearing during the heat of summer in less than two days. Dried blood may retain the power of propagation providing it be rapidly dessicated prior to putrefaction; and it is highly probable that dried bacterides transmit the disease in flocks of sheep through the medium of the respiratory organs. The disease may, too, be transmitted by the agency of the digestive organs, though less certainly than by subcutaneous inoculation. The duration of the period of incubation, after inoculation with fresh blood, has in Davaine's experiments varied with the size of the animal, but the rapidity of the occurrence of death has not been found to be in proportion to the number of bacterides produced. They multiply within a very few hours after they first appear, but cease to multiply after the death of the infected animal. Inoculated rabbits lived from eighteen to seventy-seven hours, a mean of forty hours; but only five hours after the bacterides appeared, thus giving thirty-five hours as the mean period of incubation. The blood in the heart and large vessels was found firmly coagulated.

In connexion with these most important observations I cannot do more than allude to the recent researches on trichinosis, so beautifully demonstrated last night in the grand old hall of Gonville and Caius College, by Dr. Thudichum, which have already been so thoroughly worked out, and add so much to our knowledge of those diseases in the human subject which are caused by the inoculation, inspiration, or digestion of the ova or germs of lower animals. Nor need I refer to the admirable paper of Dr. John Harley on the endemic hæmaturia of the Cape of Good Hope, which he proved so conclusively to depend upon the development within the human body of the eggs of a parasite—one of the Trematode class of worms, and of the family Distomum. The dependence of various skin diseases upon the growth of vegetable parasites is now quite familiar to us all. The *Achorion Schönleini* is almost as universally recognised as the cause of Favus—the *Tricophyton* of Tinea Tonsurans—the *Microsporon Audouini* of Alopecia Areata—the *Microsporon furfur* of Pityriasis Versicolor, as is the *Acarus Scabiei* of scabies, *Pediculi* of some forms of prurigo,—or the *Entozoon Folliculorum* of Acne. In all these instances, however, inoculation, or mediate or immediate contact, has been assumed, and it is only lately that the presence of living germs in the air, capable of reproducing contagious diseases, has been demonstrated. The honour of this important addition to our knowledge is due to M. Lemaire, who contrived an apparatus which conveys a current of air over the scalp affected with favus into receivers containing ice. In this way he was enabled to detect the achorion in the air itself so carried, and in the moisture which ensues upon its condensation in the refrigerators, and was able to reproduce the disease by means of the achorion so obtained from the air. Still more important is Dr. Kennedy's curious case illustrating the production of measles by the inoculation or inhalation of the fungi given off from mouldy straw or linseed meal; and Dr. Salisbury's corroborative proofs of the production of a disease like measles by inoculating the fungus—an inoculated disease which seems to protect patients from ordinary measles.

And here I should end with the mere suggestion that the Members of this Association may do good service in the cause of science by carrying out these observations, confirming or refuting, correcting or amplifying them. But the real practical end of all our work—the prevention and cure of disease—the lowering of excessive mortality—must not be lost sight of. And here, fortunately, the recent experiments of Polli, of Milan, on the action of sulphurous acid and the alkaline and earthy sulphites open to us a wide field for inquiry brightened by cheerful rays of hope.

In his work we first find a record of experiments on animals which prove—

1. That the injection of a certain quantity of pus into the blood produces pyæmia and affections characterised by multiple abscesses.

2. That the injection of putrid matter produces septicœmia, or putrid infection, characterised by the symptoms of typhoid gastro-enteritis.

3. That the injection into the blood of the exudative materials in contagious diseases, as in glanders, produces the general contagious affections.

In all these cases the introduction of the foreign substance or poison into the blood must be regarded as the origin of the disease, and Polli went on to inquire whether it would be possible to render the poison inactive, or neutralise it, without such an alteration of the properties of the blood as would endanger life. A great number of experiments upon the action of sulphurous acid and the alkaline and earthy sulphites showed that sulphurous acid prevents or arrests all known fermentations of organic matters as well as the putrefactive metamorphosis of animal tissue and liquids; having a much more energetic antiseptic action than arsenic or prussic acid, while it is not, like these substances, poisonous. But the irritating effects of sulphurous acid on the mucous membrane led to experiments which showed that the sulphites of soda, potash, ammonia, magnesia, and lime could be given either in the solid or fluid form in efficacious doses; that they may be found in the urine even several hours after administration; and that the blood, flesh, and viscera of animals to whom they have been administered resist decomposition much longer than in non-sulphurised animals.

These results led to a therapeutical inquiry. If the administration of sulphites by the mouth could so modify the fluids and tissues of a living animal as to render its organic constituents more able to resist the putrid fermentation which they would naturally undergo after death, it was a rational hope that a similar effect would be manifested also during life, and that the living fluids and tissues charged with the sulphites would resist the action of morbid poisons which lead to an unnatural rapidity of putrefaction after death.

Having proved that the sulph*ites*, when given internally, are absorbed, and exert their specific action upon the blood and tissues during all the time necessary for their conversion into sulph*ates* by repeated passage through the lungs, and the elimination of the sulph*ates*;—and, further, that to secure the longest presence of the sulphites in the organism, or to retard their conversion into sulphates, it is useful to substitute the hyposulphites for the sulphites, as they require a longer oxydising process to convert them into sulphates,—the cautions are laid down—1, that they should be given as long as possible after food, unless it is especially desired to neutralise the fermentative action of the gastric and pancreatic juice; and, 2, that nothing containing citric, tartaric, malic, or oxalic acid should be taken after them, as these acids decompose the sulphites and hyposulphites, and set the sulphurous acid free. But acetic acid does not decompose these salts.

It then remained to prove that when the sulphites are administered to a living animal they really do alter the action of pus upon the blood, as well as that of putrid matters injected into the blood, or of a virus distinctly contagious and not putrid. By a large number of experiments on dogs, it seemed to be perfectly established that the sulphite or hyposulphite of soda really did neutralise the effects both of pus, putrid matter, and the secretions in glanders, and without any ill effect upon the animal. The administration of those salts to children and adults showed that they are perfectly well borne by the human organism up to three or four drachms daily, and that this quantity is sufficient to prevent or arrest the action of morbid poisons.

I must refer to the work itself for any further account of these experiments; and, as it has not been translated from the original Italian, it is well worth the attention of the Council of the New Sydenham Society. But I may add, for the information of those who may be willing to carry on these observations, that the sulphite of magnesia in the solid form answers well for internal administration. It contains more sulphurous acid than other sulphites, and is not disagreeable. The sulphite of soda is disagreeable, easily decomposes, and is chiefly useful in solution for lotions or enemas. The sulphites of potash and ammonia are too disagreeable and changeable for Medical use. The hyposulphite of soda is not very disagreeable: its solubility makes it convenient for administration, but it is more adapted for prophylactic use than for severe cases, its action being much slower than that of the sulphites, as it must be converted into a nascent sulphite before the wished-for effect can be obtained.

Some cases of septicæmia in which I have given the hyposulphite of soda having been already brought before the Profession, I will now only add that the effects convinced me that it is a remedy of great value, well worthy of a general and extended trial. But I trust that no such exaggerated expectations will be entertained of its value, or of that of any other remedy, as could possibly lead any one to neglect those leading principles of sanitary science which should govern the size and construction of our Hospitals, or those lessons recently taught by Physiological Chemistry which confirm those sanitary principles—which teach us how easily our patients may be poisoned by any want of that attention which should always secure the most scrupulous cleanliness and purity of everything surrounding them—and which prove that a knowledge of principles and a practical supervision of details must be combined to enable us to recognise, avoid, prevent, or counteract the Causes of Excessive Mortality.

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Medical Times and Gazette.

SATURDAY, OCTOBER 1.

THE QUACKS.

We may divide irregular Practitioners into three classes. First of all, persons who profess to treat disease, without pretending to be members of the Medical Profession. In this class we may include the proprietors of wonderful pills and ointments which afford ready cures for cases that are "given up by the faculty." Such persons will exist and flourish so long as man is weak and credulous, and we need not afflict our souls about them. The spread of physical science will curtail their numbers, and all that we can do is to show the public that we give a better article. Secondly, we have a class of people who are to the last what a bumpkin in a superfine suit of shoddy, trying to look like a gentleman, is to his brother in a smock frock. These are the unlicensed persons who profess to have qualifications; who adopt the titles of M.R.C.S., or M.D., or "Doctor," or "Surgeon," without any right to them; or who sail as near the wind as they can, and use various cabalistical combinations of letters, as H. S., "L. M.," or "Doctor Bland of the Hospitals of London and Paris," etc. Offenders of this stamp may fairly be proceeded against under Section 40 of the Medical Act, if it be seen from the whole facts of the case that they really intend to delude the public by pretending to be what they are not. Thirdly, there is another set, whom we may separate off from other quacks, as a peculiar *fauna*, just as Professor Cobbold separates the intestinal worms into a separate family on the ground of their habits and mode of life. This class of persons may be called the dirty quacks, because they prey upon the baser instincts and vices of humanity, and do their work in the dirtiest way. Some select gonorrhœa and syphilis, which they treat as one disease; some select impotence, and some the alleged condition called "spermatorrhœa." Some treat of "female ob-

structions," and give cases of the easy and rapid cure of amenorrhœa with swelled stomach in a way that is horribly suggestive of criminal abortion. But there is this most cruel and base taint upon the operations of the dirty quacks. It is well known that the commotion, physical and mental, created by the sexual passion in early youth is in some cases so great, the struggle between passion and continence so intense, the fear of discovery, the self-abasement at error, and the horror of disease so overwhelming, that in many young men the mind to a certain extent gives way. The judgment is overthrown, and fear holds unlimited sway. A miserable state of hypochondriasis is set up, and the patient is filled with fears as to his own virility, or as to his being infected with disease, which, as they are unreasonable in themselves, so cannot always be dispelled by the cool matter-of-fact statements of the Medical Practitioner. Then there comes before the eyes of the unhappy patient the lying wonders professed to be wrought by the dirty quacks, and he probably is induced to consult one of them. Once this is done, he is in their hands. The first thing they do is to confirm his most extravagant fears, to assure him either that "the disease has got into his blood," or that his urine contains spermatozoa, and that his spinal cord is melting down and running away, and that the worst consequences are in store for him. This prognosis is *barbed* and sent home with the exhibition of wax models or pictures of ghastly diseases. Then, when the victim is made powerless by fright, he is coolly robbed. "Is there no remedy?" he asks. "Yes, but it may cost you twenty, forty, a hundred, or even five hundred pounds!" The victim is staggered—but perhaps gives a bill, and then follow years of debt, hypochondriasis, and misery, till at last the family Physician and family solicitor are called in to deliver the victim from the meshes which have been cast round him.

We could wish that the "dirty quacks" alone were implicated in this conspiracy—this crime. Unhappily they have accomplices in almost the whole newspaper press of England. Where we look for instruction—nay, in the very pages of the persons who pretend that the "press supersedes the pulpit," that it is the guardian of our liberties and morals—there we find the poison sown broadcast in the shape of the obscene advertisements of the dirty quacks. If we except the *Times*, the *Saturday Review*, the *Guardian*, the *John Bull*, and a few first-class papers, the remainder including all the penny tribe are, in this respect, as mean as they are pretentious. The *Star*, the *Standard*, and the *Telegraph* are the chief culprits, but we may say of the country press generally that it is largely dependent on the profit of these advertisements.

Some papers, it is said, superadd a peculiar degree of cruelty and unfairness to the mercenary wickedness which induces them for profit sake to send poison into every household. They insert an advertisement from a person who calls himself "Dr. Scott," or "Dr. Henry Scott," and who thus assumes the name and qualifications of Dr. Henry Scott, of Upper Woburn-place, a most respectable Physician. Now, if one personage can take the name of Dr. Scott, another may take that of Dr. Watson, or of Dr. Latham—in fact, there is no regular Practitioner who may not be subjected to annoyance.

With regard, then, to the whole class of the dirty quacks, we would have them prosecuted, not for the protection of the Medical Profession, but for that of the public, whom they delude and defraud. Especially should this be done in the case of persons usurping a name that does not belong to them. But in all these matters the Profession is defenceless. The Medical Council and the Corporations are too serenely happy in their respective spheres to notice the matter, and the British Medical Association has no money. We give in another column a report of recent proceedings which, to say the least, do not increase our respect for attorneys or magistrates. It will be noticed that Mr. Tyrwhitt retracted a decision he had given the week before.

It will be seen that neither evidence nor argument was adduced in the case of "Dr. Scott." Mr. Rogers, a respectable man, was summoned, although he had the diploma of the College of Surgeons. True, he was not *registered;* but registration is not compulsory. Hard cases are said to make bad law; and whatever the misdemeanour of quacks, they must be proceeded against with something like coolness and discretion. We believe that Mr. Talley was not employed by the Medical Council.

REGINA *v.* GOSS.

A CHARGE of manslaughter based on the finding of a coroner's jury, was preferred against a Medical man before Mr. Baron Pigott, at the Old Bailey Sessions last week, which, were it not for the injustice and cruelty which characterised it, and lent it a sterner aspect, might furnish an instructive and apt illustration for a disquisition on the imperfection of the proceedings in coroners' courts, and the absurdity of submitting Medico-legal inquiries to a non-Medical coroner and a jury of petty tradesmen. As it is, we can hardly trust ourselves to write on the subject dispassionately, the more as we fear the story we have to tell will, by the general verdict of the Profession, be held to reflect little praise on the conduct of certain of the Medical actors in the drama. It would be useless to conceal the fact that the public are neither solely nor principally to blame for the legal persecutions of Practitioners of Medicine which are constantly rousing the indignation of the Profession. Most of these attacks on Professional character would never be heard of were it not that they are aided and countenanced by individuals who think they may gain an ephemeral notoriety at the expense of the reputation and good name of a brother Medical man. In the present case it is not within our province to impute motives. We leave the narrative to the unbiassed judgment of our readers, who will draw their own and, doubtless, a just conclusion.

Dr. Samuel Day Goss, a gentleman in extensive practice at Newington, was requested by Mrs. Brazier, the wife of a coffee-house keeper in the Borough, to attend her in her confinement, which she expected would take place in the month of September of the present year. On the evening of August 17 Dr. Goss received an intimation that Mrs. Brazier was poorly, with a request that he would keep in the way, as his services might be required. He called on his patient the next day. He found that she had had a quiet night, but that she was occasionally in pain. Examination showed that she was suffering from hæmorrhoids and some protrusion of the posterior wall of the vagina. The os uteri was very high up, and could not be reached by the finger. Dr. Goss expressed an opinion that labour had not commenced, and as his patient's bowels were constipated he prescribed a laxative draught to be taken occasionally. On leaving he observed to the husband "Your wife may go on for two or three weeks yet; it is possible for her to go her full time." On the evening of the following day he was again summoned. He found that Mrs. Brazier had occasional pains. The os uteri could now be felt; it was dilated to about the size of a sixpenny piece. Dr. Goss ascertained that the head was not presenting, but at this stage he could not satisfy himself as to the presenting part. He remained about an hour, promising to visit her again the last thing before going to bed. On returning at a quarter before twelve o'clock he found the condition of his patient unaltered. The os uteri was of the same size, and as the pains were frequent and unavailing, he prescribed an opiate, and again left her. On returning home he received a message from another parturient patient to whom he had been summoned on the previous evening, before he had received the message from Mrs. Brazier. Before attending this second patient Dr. Goss left a note to be given to Mr. Brazier in case he should require him, which contained the address of another Practitioner who would take charge of Mrs. Brazier in his own absence. The second patient, a Mrs. Edwards, who was suffering from paralysis of

the lower limbs, proved to be in labour, and required Dr. Goss's constant attendance until the following evening (Saturday, August 20), when she was delivered. Dr. Goss, however, contrived to pay Mrs. Brazier a visit at 2 p.m. on that day. He then found her sitting on the bed. After the opiate of the previous night she had slept at intervals. She now complained of weariness; the pulse, however, was good, and there was no fever. On examination the labour was found to be progressing favourably, but slowly; the os uteri was the size of a florin, the liquor amnii was not evacuated, and Dr. Goss could not with certainty detect the presenting part, as the uterus was still very high up in the pelvis. He told the nurse (Mr. Brazier's mother) to support her with beef-tea, wine, etc., and added, "She is going on favourably, and probably in the evening I can help her, but it will be an evening job." He then left. Mrs. Edwards was delivered at 8·30 p.m. Twenty minutes afterwards, while still at Mrs. Edwards' house, Dr. Goss received a message to the effect that "if he were disengaged Mrs. Brazier would be glad to see him, as she was worse." He went immediately, and on arriving at the house the door was opened by Mr. Brazier, who accosted him in most offensive terms and manner, accusing him of neglecting his wife, and paying more attention to other people than to her. Dr. Goss replied, "Brazier, you forget yourself; I am not accustomed to be spoken to in this manner, and cannot put up with it. I cannot be in two places at one time." He then went up stairs, and on seating himself at Mrs. Brazier's bedside, the nurse (Mr. Brazier's mother) began to speak to him in a still more offensive and insulting manner, and remarked, "If you don't choose to attend, there are plenty of others near who will be glad to do so." To this Dr. Goss replied "that in that case she had better send for whom she liked, for that after her saying that, he declined the case altogether." He then (9 p.m.) left the house. No apology was offered, nor was anything further said by Brazier or his mother.

The question here presents itself, how far Dr. Goss was justified in thus leaving his patient, and we desire to deal with it fairly. It will not, we suppose, be asserted that no amount of abuse or ill-usage is to be held sufficient to make a Medical man relinquish his post under such circumstances. Were this the case, he would be indeed the slave of his employer, and on taking an engagement would resign all right to independent action and to assertion of personal and professional self-respect. The claims of humanity and benevolence could not with truth be urged in the case. The result proved that there was plenty of available Medical assistance to be had in the immediate neighbourhood. Dr. Goss may have acted somewhat hastily, but we hold him to have been perfectly justified in what he did. In spite of the contradictory clause which the jury attached to their verdict, we maintain that insult releases a Medical man from his attendance in every case in which there appears to be no danger of his withdrawal diminishing the chance of recovery of the patient. Dr. Goss attended immediately the summons sent by Mrs. Brazier. For six hours previously he had heard nothing of her. On the occasion of his former visit he had satisfied himself that her condition was as favourable as the peculiarities of the case admitted, and he was well aware that there would be no difficulty in immediately supplying his place. Under these circumstances he thought, and justifiably thought, that he might decline further attendance. We have said that perhaps he acted hastily, because it might have been the preferable course had he stopped in the house until another Medical man arrived—in the house, be it remarked, for his presence at the patient's bedside, where he was subject to the abuse of her mother-in-law, might reasonably be considered a circumstance likely to distress and excite her.

The narrative now takes leave of Dr. Goss. Mr. Brazier immediately fetched another Surgeon, a Dr. William P. J. Llewellyn, who stated in his evidence that he saw the patient about 10.30 the same night. At that time the os uteri was fully dilated, and grasping a child's shoulder. He stayed a short time, and then left to procure the assistance of Dr. Gervis, Assistant Physician-Accoucheur to St. Thomas's Hospital. The latter gentleman attended, and turned the child under chloroform. The operation, according to the evidence given before the Coroner, occupied about three-quarters of an hour. It was concluded at 11.30 p.m. The patient, Dr. Gervis in his evidence stated, was much exhausted. She appears to have been seized after some days with what is described by Dr. Llewellyn as "a slight inflammation of the womb." From this she did not recover. Dr. Llewellyn continued to attend her, and on Friday, September 2, called Dr. Gervis again in consultation. She, however, sank and died on the Sunday following, fifteen days after her delivery and after the last attendance of Dr. Goss.

Hitherto we see nothing more than an ordinary case of death after inflammation of the womb and its appendages, perhaps, although of this we have no evidence, complicated with pyæmia, and coming on in the puerperal condition after a severe and abnormal labour necessitating a grave operation. This, however, was not the view of the case adopted by Dr. Llewellyn. Although that gentleman had been in constant attendance during a fortnight, although the delivery had taken place in his presence and under his immediate supervision, although he must have been aware that the circumstances of the labour, over which no Medical aid could have had any influence, were such as have led to a fatal result in innumerable cases, although Dr. Goss had not seen the patient for fifteen days previous to her death, Dr. Llewellyn, we are informed, point-blank refused to give the usual certificate as to the cause of death, on the ground that it was Dr. Goss's case. As might have been expected, a Coroner's inquest was the result of this refusal. What part Dr. Llewellyn had in setting on foot the proceedings we do not know. We only know that in his cross-examination Mr. Brazier is said to have admitted with some reluctance that Dr. Llewellyn was partially instrumental in bringing about the inquiry. Be this as it may, is it to be doubted that had Dr. Llewellyn furnished the certificate, which, in our opinion, he was bound in all fairness to give, the inquest would never have taken place, and the Medical Profession would not have been disgraced and dishonoured by seeing one of its most respected members suffering the indignity of proving his innocence in the felon's dock at the Old Bailey?

The next point we would draw attention to is the post-mortem examination, which was made by Mr. Coroner Payne's order. This gentleman committed the extraordinary solecism of ordering or permitting two of the Medical men connected with the case, Drs. Llewellyn and Gervis, to make the post-mortem examination, whilst the third, Dr. Goss, to injure whose reputation and character the whole proceedings were planned, was not summoned to be present, and was not apprised that the examination was to take place. We think that the Coroner in this respect committed a grave infringement of his duty, and we are only surprised that two members of our Profession, one of them a Physician to a Metropolitan Hospital and a Member of the Royal College of Physicians, should have undertaken the examination under such circumstances. The thing was an outrage on all common principles of justice. It is quite clear that Mr. Payne should have employed a third unbiassed person to conduct the examination, and should have taken care at least that the Medical man whose professional character was implicated by the inquiry was present. The account given at the inquest of the result of the post-mortem examination seems to us to have been of the most meagre and unsatisfactory description. All we learn from the depositions before the Coroner is that there was inflammation of the right broad ligament of the uterus and of the ovary. In the absence of further information it would be useless to speculate; but, as has been suggested by a correspondent of this journal, it is possible that more extended investigation would have established the existence of pyæmia.

We now arrive at the inquest itself. Here again we maintain that Dr. Goss was treated most unjustly. He absolutely knew nothing of it until he was advised of it by the coroner's officer *one hour* before the jury was empanelled. He was then obliged to meet the charge single-handed, without any legal assistance, and without being able to procure the attendance and evidence of any Medical man. On the evidence of the husband and mother-in-law and of Drs. Llewellyn and Gervis the jury returned a verdict of manslaughter against Dr. Goss. We say advisedly on the evidence of Drs. Llewellyn and Gervis, and to support our statement we make the following quotations from the depositions, which are now before us :—

From Dr. Llewellyn's evidence :—

"I think, at 9 o'clock (the hour of Dr. Goss's last visit), she must have been in the same state as when I saw her (10.30). *It was not proper for her to be left at 9 o'clock without attention. The same means were necessary to be adopted at that time* as when I saw her. I cannot say how long the presentation had been as it was when I saw her, but *it must have been so at 9 o'clock.*"

To say nothing of the purely-gratuitous assertion that an hour and a-half had made no difference in the woman's condition, we would draw attention *en passant* to the fact that Dr. Llewellyn *himself left the patient without attention* whilst he himself went to fetch Dr. Gervis.

In cross-examination, Dr. Goss put the following question to Dr. Llewellyn :—

"If I had made an examination at 2 o'clock on Saturday, and found the mouth of the womb dilated to not more than the size of a two-shilling piece, and not knowing what presentation it was exactly, from its being so high in the pelvis and there being not much expulsive pain, was I not justified in leaving that patient and going to another who was in strong labour, and saying that I was not wanted at that time?"

Dr. Llewellyn : "It is a very improper question, and ought not to have been asked me. I cannot answer it unless I had seen the patient at that time."

With this extraordinary answer, we may take leave of Dr. Llewellyn, and now turn to Dr. Gervis's evidence, from which we extract the following :—

"Every Medical man must know that such a case would not be terminated without assistance. I cannot tell the meaning of the expression 'not coming on till evening.' It is quite certain that it would not come on at all without artificial assistance. If she was in good health I might have left her from between 2 and 3 on Saturday afternoon till 9 on Saturday evening; but I think it probable I should have seen her in the interval. I personally should not have left her on Saturday evening without attending to her. I *cannot say whether*, if she had been attended to at that time (9 o'clock) as when she was when I saw her, any different result would have taken place. I can form no Professional opinion upon it. If she had been delivered at 9 it would have saved two hours' strength; but I *cannot say whether* it would have made any difference in the result."

We really do not see how an unprofessional jury, instructed by Dr. Gervis that the loss of two hours *might* possibly have caused a death which took place a fortnight afterwards, could be expected to return any other verdict than the one they did. It is true that they might have taken a different view of the matter; but it appears to us that Dr. Gervis's evidence completely justifies their conclusion.

It seems that by the time the trial took place these two gentlemen had taken opportunity for consideration, as they both stated their inability to connect the death of Mrs. Brazier with the alleged neglect of Dr. Goss. The prisoner's counsel immediately submitted that there was no evidence to go to the jury in support of the charge. The Judge took the same view of the matter; and the jury acquitted the prisoner, but at the same time stated their opinion that Dr. Goss was highly censurable for leaving the deceased at the time he did —an opinion in which, we think, few of our readers will concur. The absurdity of the verdict as a legal conclusion is only equalled by the Irish one of "We find the prisoner not guilty, but he didn't ought to have done it."

The great question which this case presents for the consideration of the Profession is, under what circumstances of ill-behaviour on the part of a patient or her friends is a Medical man justified in declining his responsibility and cutting short his attendance? To answer, under no circumstances, is to place the Surgeon or Physician in a situation which no one with one spark of self-respect would for a moment accept. It may be difficult to draw the line, and great allowance, in any given case, must be made for minute circumstances of annoyance and insult which are not retailed in evidence, but which may, even more than set expressions of offence, influence the Medical man's conduct. Even admitting, for the sake of argument, that, in the present instance, Dr. Goss was betrayed into irritability of temper, surely an excusable offence, considering the wear and tear of body and mind to which he had been for forty-eight hours subjected—we maintain that there was nothing in his conduct which, when we remember the relative positions of Medical adviser and patient, demanded a public censure. He had visited the patient five times within two days—on two occasions he had remained a considerable time with her, and in his absence he had provided an efficient substitute. His non-interference by manual operation up to the time of his last visit but one was justified by every rule of scientific midwifery. His last visit was cut short by the wilful interference of the patient's friends, and if ill-consequences accrued they, and not he, were to blame. Yet, for his conduct in this matter, Dr. Goss has been made the subject of all the anxiety, annoyance, and cruel indignity of a criminal process. We believe that seldom, of late years, has a more iniquitous proceeding been sanctioned by law, or a greater wrong committed under the name of justice.

THE WEEK.

SIR CHARLES HASTINGS' ADDRESS AT THE MEETING OF THE SOCIAL SCIENCE ASSOCIATION AT YORK.

Sir Charles Hastings delivered an excellent address on Public Health, in which he gave an admirable *resumé* of the subject as a whole, with many points of detail. He first referred to the Sewage question; then to Infant Mortality, on which point he agreed with the suggestion that on the outbreak of an epidemic there ought to be means of removing the infected persons from crowded dwellings to some proper Hospital or receiving-house. Referring to the attempt to create Model Dwellings, he said—

In the city of Worcester, where I have exercised the profession of Medicine for half a century, more than ten years ago, an association was formed to build model lodgings in one of the lowest and most degraded parts of the city, where there was a squalid population and a death rate of not less than 23 or 24 in 1000. The old houses were cleared away, and in their place a rather handsome pile of buildings was erected, and the internal arrangements of some of the London model lodgings were copied. It is gratifying at the end of ten years to be enabled to say that great success, in one point of view, has attended the experiment. A most decent set of inhabitants, belonging to the working classes, tenant the houses, and form an agreeable contrast to the former inhabitants. The sanitary result is highly encouraging. During the last five years, in a population of about 140 men, women, and children of the artisan class, occupying thirty-four houses, there have not been more than 8 deaths; thus reducing the rate to 16 in 1000. It is also worthy of note, that whilst Worcester, from the month of November, 1863, to the month of May, 1864, was visited by a severe epidemic scarlatina, attended by a high rate of mortality, only one death from this cause occurred in the model lodgings. The financial result is less satisfactory, for although the houses have been well let, the pecuniary return has not been hitherto such as to make it a remunerative investment for capital, two per cent. having been the best rate of interest realised. I see no reason, however, why the experiment should not succeed financially, if the authorities would take the lead in the matter, and carry out the improvements cautiously and judiciously, by altering, amending, and cleansing old buildings, and adding

to them all the modern appliances, rather than by removing them altogether, and erecting new ones in their stead.

Before quitting this subject, I may observe that the spread of epidemic fever is greatly aided by over-crowding and want of ventilation in houses. Perhaps of all causes this has most to do with incubating and diffusing those continued fevers which are known as inflammatory or relapsing fever, typhus, enteric, and gastric fever. Concurrent experience seems to show that by diminution of the numbers in a given space, so as to obtain pure air, and by free ventilation you stay the progress of these diseases. It is by these means especially that model lodging-houses have been instrumental in diminishing the death-rate of crowded localities; though no doubt improved drainage and water supply have acted powerfully in the same direction. A forcible illustration may be seen in the results of the improved sanitary arrangements in our prisons. In the year 1783, as I shall have further occasion to mention, a severe outbreak of fever took place in the county gaol of Worcester, while in 1863, when a fatal epidemic scarlatina raged in that city, not a single case occurred in the prison; showing, conclusively, that under proper hygienic conditions a barrier may be opposed to the inroads of infectious disease.

Sir Charles Hastings evidently does not believe the repression of epidemic and zymotic disease to be an utterly hopeless task, or that the drainage and clearance of the earth's surface to which we have been in the habit of ascribing the mitigation of ague, are quite so powerless as Dr. Christison would have led us to believe.

It is, however, not less certain that alterations of the soil and surface of a country are influential in modifying the character and abating the prevalence of particular diseases of the febrile type. My distinguished predecessor, Professor Christison, alluded last year to the alteration of the type of disease, more especially in Scotland, through the disappearance of intermittent fever, or ague. This fact he was enabled to prove in a satisfactory manner from the dispensary records at Kelso, which show that the agues appear in these records from 1777 to 1806, after which they disappear from the books. Now it is certain that in England many districts were subject to ague about the same period of time, and equally certain that for more than half a century they have been free from it. The Worcester Infirmary was founded in the year 1745, and I have discovered, by consulting the records of that institution, that during the latter half of the last century cases of ague were very frequently admitted, but the disease disappears from the books about the year 1800, and I can state positively that since 1812, in which year I became connected with the Hospital, and have continued so more or less intimately down to the present time, scarcely a case of ague has occurred in the district. As far as my own practice goes, the few cases I have had to treat in Worcestershire during the last half-century have been imported into the county. Here we have a change of type in disease, and the question is how it has been brought about. The common solution is that the country has been drained, and that ague has consequently ceased; to this Professor Christison demurs, and denies that drainage had been effected to any considerable extent in Roxburghshire till long after ague had disappeared from Scotland. He seems to draw the conclusion that this change of type in disease was not owing to the improved drainage of the country.

Now, whatever may have been the case in Scotland, I am in a condition to prove that a very great alteration of the soil and surface of the county of Worcester took place in the latter part of the last century. The chase of Malvern was, up to a comparatively recent period, a royal forest, and, as it was situated in the vale of the Severn, and liable to be inundated, its rank vegetation would be likely to produce miasma of an active kind; a sufficient cause at once for the prevalence of ague. Towards the end of the last century, nearly the whole of this chase, which contained many hundred acres of land, was enclosed. The effect of this enclosure, and of the cultivation of the soil, was considerably to alter the surface of the county, and to make the land drier. There was not, indeed, any such scientific drainage as is now practised with so much advantage to agriculture; but the mere effect of ploughing, of making water-courses and ditches, and the substitution of serial crops for rank vegetation, must have had a great effect in removing water from the surface of the land, and in diminishing miasmatous exhalations. So that, as regards Worcestershire, the disappearance of ague seems to be accounted for by its being coincident with a very material diminution of the causes which are known to produce the disease.

The alteration of the type of disease in Worcestershire is not confined to intermittent fever, but I think to some degree an equally satisfactory explanation can be given of other changes. On studying such records as exist of the fevers prevalent in the last century, it cannot be denied that they vary greatly from those of this generation. More especially is this shown by the comparative rarity of continued fevers at the present day. I can quote from a contribution by a resident Practitioner in Worcester, on the various sources, symptoms, and treatment of fevers as they occurred in that city and its immediate neighbourhood, between the years 1781 and 1820. He remarks that in 1781 the city and suburbs of Worcester were much subject to fever; and if we consider the wretched state in which many of the lower classes of the inhabitants were crowded together in the remains of the former clothing manufactories; the neglected state of the streets in which these buildings were situated; that even those in the most airy parts were but partially under-drained, and that the drains were so ill-constructed as frequently to admit of their contents stagnating and infecting the air for a considerable distance round their grates; considering also the large quantities of water, highly charged with animal matter, issuing from the glove manufactories, we feel no surprise that idiopathic fevers did, during this time, frequently and generally prevail in Worcester.

The severity of these visitations may be estimated by the fact stated by the same authority, that an epidemic fever in 1783 lasted for eight months, during which time he attended seventy cases in the county prison, of which number thirteen died. There appears to be no doubt that these frequent scourges induced the inhabitants to make efforts to better the condition of the poorer people by cleansing the streets and improving the houses, and that these efforts were followed by a diminution of disease. In the year 1812, when my Medical connection with the neighbourhood commenced, typhus and enteric fevers were of a milder type and less frequent, though severe cases of typhoid fever were still not unfrequently admitted into the Infirmary. And so matters continued till the year 1832. In that year came the first outbreak of cholera, when the whole city and county were seized with alarm as to the probable effect of the visitation. The calamity was met by the city with wisdom and firmness, and vast improvements resulted. The houses were cleaned, the streets were better drained, and much was done to better the condition of the labouring classes. My conviction is, that from that time the health of Worcester, as respects epidemic fever, has been materially improved; and I may state that during the last twenty years of my attendance as ordinary Physician at the Worcester Infirmary, I very rarely admitted a case of fever. Nor can I doubt that this comparative immunity from continued fever, and the diminished severity of its type, must be attributed to the better habitations of the labouring classes, and to the improved drainage and water supply which within the last few years have been obtained by a great but assuredly a highly remunerative expenditure.

Yet much remains to be done. During the last year we have had an admonition that Worcester is not safe from outbreaks of scarlet fever. That terrible disease began to rage in October, 1863, and continued its ravages in the city and suburbs until the summer of the present year. The mortality, which was greatest among children under twelve years of age, reached as high as 250, in a population, according to the census of 1861, of 32,802. Such a loss of life forces on us the question, How is it that in a community where several sanitary improvements have been effected, and where the occurrence of the ordinary continued fevers has been so considerably diminished, such an outbreak of disease can take place? The question is important, and applies more or less to the whole country, the case of Worcester, which I have taken as an example, being the case of many other towns. The answer is twofold. In the first place the ordinary sanitary improvements which may be effective in lessening the fatality and frequency of fevers less intensely infectious, fail to stop the progress of scarlet fever. This may arise from the activity of the poison productive of that disease, and which is generated profusely by every person attacked, contaminating the air around him, and endangering the individuals with whom he comes into communication.(a) It is clear that some

(a) Dr. Murchison, in his lectures, justly states that scarlet fever depends upon a peculiar poison, capable of being communicated by the sick to persons in health. This it is which explains its frequent visitation

active measures of a preventive character would have a salutary effect. When the cholera visited Worcester in 1832, the inhabitants were so alarmed that stringent means were promptly taken by the public to meet the danger. In every place where the disease appeared, the houses were purified; the persons attacked were removed to an Hospital, and the crowded dwellings were emptied of their inhabitants, who were placed in temporary habitations erected for the purpose. Yet the cholera of 1832, which was thought terrible enough to produce these exertions, killed fewer people in Worcester than did the scarlet fever of 1863.

After some judicious remarks on vaccination Sir Charles expressed his hearty concurrence in the Acts passed last session on the repression of intemperance and vice. With respect to the latter, he said "*to frame laws for the partial restraint of vice is altogether a different thing from devising schemes for its toleration.* In this respect, the recent Act differs from the system adopted in other countries, since, without licensing vice, it is content to acknowledge its existence, and to impose certain penalties on those who superadd physical to moral impurity. While this great social experiment is in progress for the protection of our soldiers and sailors, regulations of scarcely less importance have by another measure been enacted in our metropolis. Our old friend 'the liberty of the subject' is no longer to be allowed night-long revels and unrestrained profligacy, but is compelled for his own and his neighbours' benefit to limit his excesses to one hour beyond midnight."

In an eloquent peroration, Sir Charles "spoke cheeringly of the results which have followed the greater temperance, cleanliness, and knowledge of the present day, and urged our perseverance in that course of "sanitary reform" which our country may be proud of having set going and causing to spread.

"NON-COMBATANT" OFFICERS.—THE VICTORIA CROSS.

(From the *Gazette* of Friday.)

War Office, September 22.

The Queen has been graciously pleased to signify her intention to confer the decoration of the Victoria Cross on the undermentioned officers and drummer of Her Majesty's army, whose claims to the same have been submitted for Her Majesty's approval, on account of acts of bravery performed by them in New Zealand, as stated against their names, viz. :—

"Assistant-Surgeon William George Nicholas Manley, Royal Artillery, for his conduct during the assault on the rebel pah near Tauranga, New Zealand, on the 29th of April last, in most nobly risking his own life, according to the testimony of Commodore Sir William Wiseman, C.B., in his endeavour to save that of the late Commander Hay, of the Royal navy, and others. Having volunteered to accompany the storming party into the pah, he attended on that officer when he was carried away mortally wounded, and then volunteered to return in order to see if he could find any more wounded. It is stated that he was one of the last officers to leave the pah.

Assistant-Surgeon William Temple and Lieutenant Arthur Frederick Pickard, Royal Artillery, for gallant conduct during the assault on the enemy's position at Rangiriri, in New Zealand, on the 20th of November last, in exposing their lives to imminent danger in crossing the entrance of the Maori keep, at a point upon which the enemy had concentrated their fire, with a view to render assistance to the wounded, and more especially to the late Captain Mercer, of the Royal Artillery. Lieutenant Pickard, it is stated, crossed and recrossed the parapet to procure water for the wounded, when none of the men could be induced to perform this service, the space over which he traversed being exposed to a cross-fire; and testimony is borne to the calmness displayed by him and Assistant-Surgeon Temple under the trying circumstances in which they were placed."

to rural districts where the causes producing zymotic disease do not appear to be very operative. A remarkable instance occurred in the neighbourhood of Worcester during the late epidemic. The parish of Martley has an exclusively rural population, with an ordinary mortality of about 21 per 1000. There are no specific circumstances in the locality which appear likely to produce zymotic disease. In the month of December, 1863, scarlet fever was imported into the parish by a tailor, whose business called him to Worcester. This was the spark to ignite the flame. The disease spread, for he lived in a dirty and ill-ventilated cottage, and his family were attacked; in a short time fifteen children in the parish fell victims, so that in a population of 1140 persons more than 14 per 1000 were sacrificed. The separation of the sick from the healthy, with the use of disinfectants and free ventilation, would probably have arrested the pestilence at once.

REVIEWS.

The Science and Art of Surgery; being a Treatise on Surgical Injuries, Diseases, and Operations. By John Erichsen, Professor of Surgery and Clinical Surgery in University College, and Surgeon to the University College Hospital. Fourth edition. London: Walton and Maberly. 1864. Pp. 1280.

A System of Surgery. By James Miller, F.R.S.E., F.R.C.S.E., Surgeon in Ordinary to the Queen for Scotland; Professor of Surgery in the University of Edinburgh, etc., etc. Edinburgh: Adam and Charles Black. 1864. Pp. 1387.

The Principles of Surgery; Clinical, Medical, and Operative: an Original Analysis of Pathology Systematically conducted, and a Critical Exposition of its Guidance at the Bed-side and in Operations; representing the Principles of the Earliest and most Exact Diagnosis, Etiology, Prognosis, and Therapeutics, Medical and Operative. By Frederick James Gant, F.R.C.S., Surgeon and Pathological Anatomist to the Royal Free Hospital, etc. London: Churchill and Sons. 1864. Pp. 860.

Nouveau Dictionaire de Medicine et de Chirurgie Pratique, illustré de figures intercalées dans le texte. Directeur de la rédaction, le Docteur Jaccoud. Tome premier; premiere partie, A—Age, avec 32 figures intercalées dans le texte. Paris: J. B. Baillière et Fils. 1864. Pp. 416.

On the Influence of Mechanical and Physiological Rest in the Treatment of Accidents and Surgical Diseases, and the Diagnostic Value of Pain; a Course of Lectures delivered at the Royal College of Surgeons of England in the Years 1860, 1861, *and* 1862. By John Hilton, F.R.S., F.R.C.S., Member of the Council of the Royal College of Surgeons of England; late Professor of Anatomy and Surgery to the College; Surgeon to, and Lecturer on Surgery at, Guy's Hospital, etc. London: Bell and Daldy. 1863. Pp. 499.

The new editions of Erichsen and Miller demand but few remarks. Of the two works as now placed before the public we should say that the work of Mr. Erichsen is by far the more complete, and the information it conveys is fuller than that afforded by Mr. Miller. If we had the re-arrangement of the titles, we should designate Mr. Erichsen's book the "System" of Surgery, and Mr. Miller's the "Treatise." In saying this, we do not wish to be taken as depreciating in the slightest degree the work of the latter gentleman, whose loss the Profession have had so recently to deplore; for we think that while Mr. Erichsen's book is one which experience has shown to be indispensable to the Surgical Practitioner, Mr. Miller's is well calculated for the use of the student while passing through his Surgical curriculum. In illustration of our meaning, we may refer to one or two subjects, discussed, of course, by both authors. Mr. Ernest Hart's treatment of aneurism by flexion may be one of these. Mr. Miller disposes of it in a single sentence, alluding to it as one mode of exerting direct pressure; while Mr. Erichsen devotes to it an entire section, describing the method of carrying it out in such a manner as to enable the Surgeon to form an opinion as to its applicability to any particular case, and to put it in practice if he thinks proper to do so. Another we may mention is the operation of ovariotomy, which is only completely described by Mr. Erichsen. Both writers consider the operation as justifiable in itself. Mr. Erichsen, however, supplies the statistics of success and failure in proof of his opinion. Mr. Miller rejects the evidence of statistics altogether, on the ground that the performance of the operation in any instance can be decided upon only after a careful consideration of all the circumstances in each individual case. This is very true, and it is also true that much of the statistics available consists of very heterogeneous materials; but yet their value may, when properly employed, be rather enhanced than lessened by this very fact; while the question as to whether an operation is justifiable at all is a very different one from that of its performance in any special case. Another example of the difference between the two books is to be found in the account given by the two writers of the employment of anæsthesia in Surgical operations. Mr. Miller's description of the use of chloroform in Surgery is far too brief even for the student, when the importance of the subject is taken into account; whereas Mr.

Erichsen enters upon it in a manner which leaves nothing to be desired by either the student or the Practitioner. Notwithstanding the statistics published by Dr. Simpson, Mr. Erichsen writes thus of the rate of mortality after operations performed under the influence of chloroform:—"I am inclined to believe that the rate of mortality has increased since the use of chloroform in operative Surgery. But is this increase altogether due to any effect produced on the system by the inhalation of chloroform? May it not in some measure, at least, be owing to operations being often performed in very doubtful or extreme cases, now that they can be done painlessly, when formerly the suffering inflicted would have deterred the Surgeon from proposing or the patient from acceding to, their performance? A Surgical operation was formerly, from the pain attending it, looked upon as a more serious affair than it is at the present day, and Surgeons were not willing to inflict suffering unless there was a good prospect of a successful issue. Now, however, that the most serious operations can be performed without any consciousness to suffering, the Surgeon, in his anxiety to give his patient a chance of life, may not unfrequently operate for disease or injury that would otherwise necessarily and speedily be fatal, and which formerly would have been left without an attempt at relief. Making, however, all allowance for the extension of operative Surgery to extreme cases that were formerly not thought to come within its range, I cannot but think that chloroform does exercise a noxious influence on the constitution, and does lessen the prospect of recovery in certain states of the system, more especially when the nervous power is enfeebled, or the blood is in an unhealthy state. Under such circumstances, the depressing influence of chloroform appears to me to act injuriously; the patient does not rally well after the operation for which it is administered, and immunity from suffering is purchased by a lessened chance of recovery."—P. 10. With this cautionary extract, we quit the volumes of Miller and Erichsen, and proceed to discuss the contents of the new works which remain upon our list for notice.

And first, as to Mr. Gant's book, which is unquestionably the work of a man who thinks and has made good use of his practical opportunities. Our first impression on taking up the book was a disagreeable one, and so we venture to say will be the first impression it will make upon anybody else. As we are, however, about to give it a good word, we may as well at once discharge our critical conscience of what is bitter and distasteful, and then we can the more assuredly hope that the last impression, which is the sweetest, will also be the permanent one. We allude to Mr. Gant's style of composition, which, from its lack of lucidity, renders the book one of the most difficult to read of any which have come before us for a long time. It is not that Mr. Gant employs the term "Principles" and other words in a sense somewhat different from that in which other writers use them, but that throughout the book he seems to consider himself bound to repeat his explanation of them by parentheses, parenthetical clauses, and supernumerary adjectives. In this way it happens that some sentences are so complicated and so awkwardly constructed that one has to read them over several times before one can attain to a clear idea of the author's meaning. We venture to say that the very title of the work will be to most persons an initial puzzle. This fault, which is purely literary, is notwithstanding a serious one, and is likely to deter many persons from studying a production otherwise creditable to the writer. We are sure Mr. Gant will pardon us for drawing his attention to it, for it is an error which it will be to his own interest to correct in any future edition. We will endeavour now to point out the scope and objects of the work. Very early in the volume Mr. Gant explains that he uses the term "Principles of Surgery" in a different sense to other authors, who appear to mean thereby the general laws of pathology. By "Principles" Mr. Gant (if we understand him aright) would express the *guiding principles* by which the Surgeon and Physician respectively is led when engaged in the practice of his art, whether for diagnosis, for determining the origin and cause of a disease, for prognosis, or for treatment: in the case of the Surgeon, the guiding principles on which he determines the propriety of operative interference, the extent to which an operation should be carried, and the principles by which he is guided during the performance of the operation itself. The object, then, of the author is a praiseworthy one, and we think he has taken up a topic on which a great deal might be said; and the key-note of the volume is that both in diagnosis, prognosis, and treatment, as well as in etiological matters, pathological anatomy is the guide which must be mainly depended upon; inasmuch as the assistance it affords is afforded earlier and is in its nature more exact than can be supplied from any other source. The bulk of the volume is devoted to illustrating this proposition, and to enforcing it by examples of the mode in which it may be applied at the bedside. On the whole we are not sure that Mr. Gant, like other original observers, does not carry his principles rather too far sometimes; but the general tendency of his argument is good, and the discussion of the subject is, we consider, likely to benefit both practical Surgery and practical Medicine. One of Mr. Gant's main objects appears to be to point out the basis on which conservatism rests in both of these branches of Medical art. "The Surgical tendency of the age," he writes in his introduction, "is to conservative *operations*, by virtue of which parts of the body are preserved that would otherwise formerly have been removed by the Surgeon. Limbs that would have been amputated are now preserved by the excision of a diseased joint. This is preservative Surgery; and so far, so good. But, to supersede any operative assistance is conservative Surgery, equivalent only to the 'Medical treatment of Surgical disease,'—a definition I have somewhere read. I would take my stand on higher ground than that of either view, and elevate conservative Surgery on a broader and deeper foundation. The full import and extended significance of this (conservative) attribute in general therapeutics have hitherto been very incompletely recognised. As the measure of our judicious reliance on the curative provisions and resources of Nature in the treatment of disease, and in conducting the repair of injury and, therefore, thus guiding and regulating therapeutics, respecting the kind and *least* amount of assistance, medical and operative; determining the *earliest occasion* for such assistance; and, moreover, determining whether *any* interference whatever be necessary,—Conservatism thus expanded, most adequately represents that Therapeutic Principle to which, by long observation and reflection, I have been led. But the practice of Surgery and of Medicine concurrently will become conservative, in this sense, only proportionately to the *earliness* and *exactitude* of our prognosis or fore-knowledge respecting the natural course of diseases and injuries individually, to or towards a favourable or unfavourable issue; a similar etiological knowledge of internal causes and their operation; and previous diagnosis, of a similar standard, so as to discover the particular kind of disease or injury, its situation and extent also, in the first instance. Such knowledge of these preliminary departments of Surgery (and Medicine) is our only sure guide to the appropriate and due employment of remedial measures, medical and operative; and whereby to anticipate and circumvent any impending complications which would or might supervene, and which, denoting the declining efficacy of the restorative power of nature, would over-balance our conservative measures. Therefore this character of practical Surgery and of general therapeutics takes its root and origin far in the depths of all those preliminary Principles of diagnosis, etiology respecting internal causes, and more immediately of prognosis, which alike issue from pathology. This, the parent; that, the offspring," p. 15. The best chapter in the book, without exception, is the sixteenth, which treats of "Pathology the Guide in Surgical Operation and Manipulation." It is short, and the observations of the author are concise and pointed. We should like to see this chapter reprinted and placed in the hands of every Surgical student. It would not be amiss, too, if a copy were quietly slipped into the note-case of some lecturers on Surgical anatomy. Mr. Gant will remind both that the operating Surgeon "is never called on to touch the body in its healthy anatomical condition;" that "the physical properties and relations of parts disclosed during an operation are then so changed by disease as sometimes scarcely to admit of recognition, and thus it is that anatomy *plus* certain pathological alterations, or the *pathologico*-anatomical conditions of the body, are those with which the operating Surgeon is concerned;" and he illustrates his position by reference to some of the most important of our major operations and by the difficulties which some of our masters in Surgery have occasionally experienced, difficulties so great as to have even led a Liston to place a ligature by mistake upon the brachial plexus, and a Dupuytren to tie the fourth cervical nerve.

We are glad of the opportunity of bringing under the notice of the British Medical public the new Dictionary of Practical Medicine and Surgery, the first volume of which has just issued from the Paris press. Limited in its design by the terms of its title, it is intended to embrace only those departments of the collateral sciences which have a direct bearing

upon Medical and Surgical Practice. The subjects it is intended to treat of are—Anatomy (topographical only) and Physiology; Medical Pathology and Therapeutics; Midwifery; Surgical Pathology and Therapeutics; Hygiene; Legal Medicine and Toxicology; Odontology and Medical Physics; Chemistry and Natural History. On running our eye along the list of names of contributors to the Dictionary we recognise those of the most distinguished Practitioners both in Paris and in the French provinces. In order to avoid the inconvenience of extreme sub-division of subjects, and so the loss of unity which the alphabetical arrangement sometimes entails, the system of monographs has been adopted; and in this way the several parts of the same question are set out in a single chapter divided into several articles. Thus under the words "heart," "stomach," "liver," etc., will be found (we are promised) all the diseases of which these organs are the seat, and the pathological section will be preceded by an anatomical or physiological introduction. An old complaint against French writers has been their blind exclusiveness—the wilful manner in which they have ignored everything not proceeding from a French, or, at all events, a Continental source. Against the new Dictionary we are promised that this complaint shall not be justly raised. The writer of the introduction to the volume, in fact, makes a full and candid confession of the sins of his nation in this respect; announces that scientific investigations can be no longer restricted by national boundaries; that all such artificial barriers must be broken down; regrets that Medical research has so long remained outside the universal scientific community; and declares on behalf of his nation that France has now "in her turn come out from an isolation which might become dangerous; and following the example which has been given her on all sides, she has decided—*elle aussi*—seriously to settle accounts with foreign works." Need we say that we heartily congratulate our neighbours on their repentance and the very excellent resolve they have come to? We hope that the example set by the writers of the Dictionaire will find numerous imitators. No one can read this first volume without observing the numerous references that are made to the works of Englishmen. Each article is furnished with its bibliography; and in none of these lists of works do we miss the most valuable of the productions of our own countrymen. And the old debt is honourably paid to the very last farthing. We need not remind the conductors of the Dictionary how much its value is enhanced by this step; but we may tell them that it is one which will be appreciated in this country, as it is calculated to induce the Profession here to purchase a work which, judging from the sample before us, will be well worth every penny laid out upon the consecutive volumes. Yes, "to the very last farthing"—for although the date of the Introduction is July, 1864, there is not only an article upon acupressure, in which Dr. Simpson's views are fully expounded, but his last contribution on the subject made to the *Medical Times and Gazette* in the present year is quoted. The writer of the article, M. Giraldés, one of the Surgeons to the "Hôpital des Enfants Malades," moreover, ably defends Dr. Simpson against an attack made against him by a distinguished French Surgeon, who designated the procedure as a "Surgical curiosity,"—"not daring, perhaps, to give it the epithet of an 'impertinent novelty,' which Papin had applied to the introduction of tea into daily use. Anyhow, 'surgical curiosity' or 'impertinent novelty,' as you please, acupressure has already been proved; it has been employed sufficiently often in major operations to make its value and utility appreciable. Whatever may be the opinion of Practitioners, therapeutical inventions are always judged by clinical experience. And it has been demonstrated that for large arteries, such as the femoral, for instance, acupressure may replace the ligature. Thirty-four great operations are known in which this procedure has been applied with advantage and safety; ten amputations of the thigh, twelve amputations of the leg, five of the arm, five disarticulations of the foot, two amputations of the forearm, operations in which acupressure has replaced the ligature; and if it has not completely realised the anticipations of Dr. Simpson, that is to say, by promoting an immediate, quick reunion, it has shown at least that it could be something else than a simple curiosity. After the enumeration of the operations which we have just given, and many others, in which it has been advantageously employed, we shall not despair of seeing it some day introduced into the Surgery of the battle-field, patronised by the skilful Surgeon who endeavoured to bar the door against its entrance into practical Surgery."—P. 389. Let a Frenchman alone for genteel sarcasm. Our readers will be glad to be informed that the work is to be completed in twelve or fifteen volumes of 800 pages each, and the price of each volume will be 10 francs. It is promised that three volumes will be issued annually, and, if this promise is kept, the work will be completed in the course of four or five years, and at an expense of about £6 or £7. As the French language is now rendered an essential element in English Medical education, we confidently anticipate that this work will become a favourite among the junior members of the Profession. The type is good, the paper somewhat better than usual in foreign works, and the general getting up unexceptionable.

And now turn we to the last of the books upon our list. Pain under injury prompting to, and indeed compelling to, rest—rest, the great therapeutist, the necessary condition for repair. These are the topics of Mr. Hilton, and he treats them with a fulness of illustration which makes his pages read almost as if he were enunciating new doctrines, in place of simply enforcing the oldest truths of Medical and Surgical science. But old as these truths are they will bear repetition; especially must they be repeated by one teacher after another in the ears of fussy and meddlesome Practitioners, who refuse to listen to Nature's outcries, but are always hunting for mares'-nests, and worrying themselves and their unhappy patients by ever varying but ever formidable medication. To all of us, but more especially to such of us as this sketch pourtrays, Mr. Hilton's lectures constitute valuable lessons in what may be termed Surgical common-sense; in all they will tend to confirm, where they are not absolutely needed to teach, confidence in the restorative powers of Nature, when simply put in a position to do her own work in her own way and in her own good time. Mr. Hilton tells a good story about this, which we may repeat:—"A few weeks ago a Surgeon from the country came to my house with a patient. He said, 'I want to consult you about a young lady who has a diseased toe. It has been very troublesome, and I have not succeeded in completely relieving her.' With her was an elderly gentleman, a relative of the patient, a very kind-hearted man, who thinks himself a good Surgeon, and goes about doctoring the people, sometimes doing harm, and sometimes, perhaps, a great deal of good. He is very fond of animals, and has a number of pets. After I had examined with the Surgeon the lady's toe, the elderly gentleman said, 'Well, Mr. Hilton, what are you going to do to cure this young friend of mine?' I said, 'I think we shall put a splint on the foot, and keep the toe very quiet, attend to her general health, and Nature, in all probability, will do the rest.' I then said to him, 'What led you to adopt the occupation of a philanthropic Surgeon, in addition to your other occupations?' 'Well, Mr. Hilton,' he replied, 'I will tell you. You know I am fond of animals. Some years ago I caught a live mouse in a trap. I took it in my hand, and said to myself, 'Poor thing! you must have suffered a good deal of pain and distress. You have had a severe laceration of your cheek; one of your eyes has been torn out; your skull has been broken, and instead of having bone covering your brain, you have now only a thick dense membrane defending it.' Then I thought to myself, 'This mouse must have had difficulties in its treatment of its injuries, and ——' interrupting the relation of his story, he said, 'I hope you won't be offended at what I am going to say?' 'No,' said I, 'not in the least.' 'Well,' he continued, 'I said to myself, "Surely this mouse, although it is cured, never had a Physician or a Surgeon." I quite agree with you, Mr. Hilton, that Nature is a very valuable Surgeon.' "—P. 54. Mr. Hilton carries us with him, while illustrating his principle, through the treatment of most of the more serious forms of Surgical disease. Let us, then, dip into his book here and there, taking out a few samples of the author's method of imparting instruction. He is endeavouring to enforce "the importance of recognising the precise distribution of the nerves of any part where the patient is suffering pain," and narrates the following case, amongst others:—"A gentleman, aged 63, came to consult me regarding an ulcer situated upon the left side of his tongue. On examination, I found an elongated, very ugly-looking ulcer, nearly as large as a bitter almond, and of much the same shape. The surrounding parts were swollen, hard, red, and much inflamed, and a lymphatic gland was enlarged below the horizontal ramus of the lower jaw on the same side. I saw in the mouth a rugged tooth, with several projecting points upon it, opposite the ulcer. This gentleman observed to me—'Having suffered a good deal from earache on the left side for a long time without

experiencing any relief from Medical treatment, it was thought that I must be gouty, and I went to a Surgeon who treats gouty affections of the ear. This Surgeon paid great attention to my ear, but certainly did not do it the slightest degree of good. I accidentally mentioned to him that I had had for some time past something the matter with my tongue. On seeing it, he immediately began to apply caustic vigorously; moreover, not satisfied with applying it himself, he gave it to my wife, that she might apply it at home. I have gone on in this way from day to day until the pain in my ear is very considerably increased, and the ulcer on my tongue is enlarging; so I have come to you for your opinion regarding my state; for, to tell you the truth, I am afraid of a cancer in my tongue.' I thought I saw the explanation of the patient's symptoms. The pain in the ear was expressed by the fifth cerebral nerve, and there was a rugged tooth with little projections upon it, some of which opposed and touched a small filament of the lingual-gustatory branch of the fifth cerebral nerve on the surface of the ulcer. I detected this little filament by placing upon it the end of a blunt probe. It was situated near the centre of the ulcer, and was by far its most exquisitely painful part. This exposed nerve caused the pain in the auditory canal, which led him to go to the aurist, and the aurist, instead of confining himself to his own department, seized the tongue, put nitrate of silver upon the whole of the ulcer, and increased the mischief. I simply desired that the ulcer should be left at rest; that the patient, to avoid touching the tooth, should neither talk nor move his tongue more than necessary; that he should wash his mouth with some poppy fomentation, and take a little soda and sarsaparilla twice a-day. In three days about one-third of the ulcer was healed up, actually cicatrised, the enlarged gland nearly gone, and the earache much diminished."—P. 71. A few more days and he was well, and sent to a dentist to have the points of the tooth taken off. Again, Mr. Hilton finds the explanation of the tense contractions of the abdominal muscles in peritonitis in the anatomical fact of the same nerves supplying these muscles as supply the peritoneum behind them and the skin in front of them. The same anatomical fact also explains the efficiency of local applications in certain cases of abdominal disease. He narrates the case of a gentleman who had extensive cancer of the rectum. He "had considerable pain in the colon, and spasmodic contraction of the abdominal walls associated with his rectal disease, and he suffered a great deal of pain at night, so as to deprive him of his sleep. For the purpose of procuring sleep it was essential that he should take opium; it was administered by the mouth, but the opium thus taken destroyed his appetite. . . . He had, accordingly, a strong solution of opium made, and rubbed it upon the abdominal parietes night and morning. From that time the patient had scarcely any pain or spasmodic abdominal contraction; he required no more opium by the mouth to make him sleep, and he regained his appetite. . . . I believe this plan of treatment—I mean the application of anæsthetics to the cutaneous nerves—is, as a rule, most imperfectly carried out in practice."—P. 239.

Of all the Surgical affections which are apparently trifling in extent, one of the most painful and depressing both to mind and body is the little superficial ulcer which sometimes goes under the name of "anal fissure." The reason is "the number of nerves associated with it, and the cause of the continued painful contraction which accompanies it lies in the enduring strength of the sphincter muscle. . . When (in the usual treatment of such a case) we divide the sphincter muscle forming the base of the ulcer, what do we accomplish by it? We cause the two portions of the muscle to contract to their then more fixed points, that is, away from the ulcer. Therein lies the rationale of the operation so frequently performed, it prevents the muscle irritating or annoying the surface or edge of the ulcer by pressing them upon each other during its contraction. Hence I maintain that the sphincter ought to be divided through the centre of the ulcer, and then, as a rule, the operation is permanently successful. The treatment of such cases is really absolutely based upon bringing about physiological rest," p. 291. Mr. Hilton seems to doubt the efficacy of simply drawing the knife across the mucous membrane. That it may be effectual as a cure, we can testify from experience of the result in our own person—the explanation of it is another matter. Probably Mr. Hilton may not be far wrong when he suggests that the mucous membrane cannot well be divided without also cutting through the nerves, and thus by relieving pain giving physiological rest.

Mr. Hilton's method of curing Onanism is free blistering of the penis, making it so raw and sore that it cannot be touched without pain. He narrates a case in point in which the results of Onanism were mistaken for cerebral disease. The case is so instructive that we shall extract it, and so conclude our notice of Mr. Hilton's excellent lectures:—

"W. B., aged 15, is one of eight children, all of delicate constitution, and himself prone to convulsions in his infancy. After repeated exposure to cold and wet, he called upon his Surgeon on September 4, 1860, complaining of pain in the sacrum and left hip and thigh. He was relieved by purgatives and salines. I saw him on September 11, with both knees flexed, and complaining of great pain in the lower part of the sacrum, with so much tenderness as to be unable to sit down. The left thigh and leg were very tender, and there was excessive tenderness of the surface all down the spine. No local indications of heat in any of these parts; bowels constipated: tongue coated. He was ordered cathartic pills, colchicum, and an aperient mixture in strong doses; croton oil and tartar emetic liniment to be rubbed along the dorsal and lumbar portion of the spine. Within a week there was great pain along the cervical portion of the spine, extending to the left arm. Says the motion of the shoulder is very painful; elbow free; left hand closed tightly, and any touch either of the finger or wrist caused him great pain. Slight pressure anywhere on the spine produced great pain, according to his own statement. September 19.—Left hand firmly closed; both thighs drawn up; knees bent, and cannot be extended; toes of the left foot inverted, and whole limb very sensitive. The mouth is closed for a few minutes two or three times a-day. This went on till October 3, when a Physician from London saw him. This gentleman in consultation thought that he recognised an important pathological state of the brain or spinal marrow, and pointed out with great precision the pathological anatomy which was sure to be found at the expected post-mortem examination. This prospect made the friends of the patient very anxious indeed. On October 7 he was no better; head symptoms were now added, and for a minute or two he became unconscious. 11th.—No better; valerianate of zinc, with compound rhubarb pills, quinine, etc., were continued. 19th.—Consulted with the Physician again; fits and trismus worse. He was ordered to have bichloride of mercury, iodide of potassium, and bark." Thus much is the report of the young gentleman's Surgeon. Mr. Hilton first saw him on the 30th. He says:—"I found him sitting in his chair, the left forearm flexed, with the left thumb turned inwards towards the palm of the hand, and the fingers flexed over it, his face flushing very readily. The skin was cool, and there was no thirst. The pulse was not quick, but the heart was very exciteable; the tongue clean; the pupils dilated; skin exquisitely sensitive to the touch when attention was directed to that point, but not when the mind was diverted from it. The contraction of the limb and hand was constant, but could be overcome by persevering efforts on my part, giving way very suddenly. The spine was tender the whole way down. I requested that he might be denuded. The penis was very sensitive, and the skin prolonged; the genital organs were cold, but highly sensitive; the hands were cold and damp. He had insisted on sleeping by himself, and in a room to himself. The patient watched especially my examination of the genitals, and, when I at that moment looked at him seriously, averted his face as if ashamed. I felt convinced that the whole of the symptoms were the result of Onanism."—P. 268. The treatment consisted in not allowing the lad to sleep alone, diverting his mind by ordering five grains of mercurial ointment to be rubbed into the axilla daily, and applying blistering fluid every night to the penis, giving small doses of morphia at night. An improvement in the muscular contractions was noticed in three or four days, and he was well in about a month. We need not extract the details of the case further. It seems a hard insinuation to make, but we believe that that Practitioner, who keeps masturbation most constantly in his mind as a cause of functional nervous disturbance, is likely to be the most successful in his management of such cases, when occurring in young persons of both sexes during the earlier years of puberty. We have been told that a common prescription of a deceased Physician, who was a good deal consulted in nervous functional derangements, was—"And always sleep with your arms outside the bed-clothes."

*** CORRIGENDUM.—The title of Dr. Macleod's work was erroneously printed in our review of last week. Instead of "Outlines of Surgical Anatomy," it should have been "Outlines of Surgical Diagnosis."

MEETING OF THE BRITISH ASSOCIATION

FOR THE

ADVANCEMENT OF SCIENCE.

SPECIAL MEDICAL REPORT.

(Continued from page 343.)

PHYSIOLOGICAL SECTION.

PAPERS AND DISCUSSIONS ON THE PHYSIOLOGY OF DIETS, AND ON TOBACCO.

The labours of the Section this year were remarkable for their interest and public importance in relation to foods. No fewer than twelve papers were read on this subject, and in order that our readers may have the advantage of taking a bird's-eye view of the food question we have placed these papers together, classifying them, after the names of their authors, in alphabetical order.

The Alimentary Character of Nitrogen Gas.

By Francis Basham, Esq., Bristol.

The object of this paper was to try to show that the nitrogen of the atmosphere is directly applied in the process of alimentation through the blood.

Discussion.

Drs. Hughes Bennett, Rolleston, and Richardson, and Mr. Gilbert replied to this paper, each one showing the utter fallaciousness of the hypothesis.

On Meat as a Source of Entozoa.

By T. Spencer Cobbold, M.D., F.R.S., London.

Dr. Cobbold first referred to parasites affecting beef and veal. There was great difficulty in determining the existence of parasites in animals during life even by a skilled veterinarian. Dr. Cobbold showed that when these parasites were present in food all danger of injury to mankind from their presence was prevented by cooking the meat at a high temperature—say 212° Fahrenheit. Speaking of mutton, he said that most of the entozoa inhabiting sheep did not appear capable of living in the human body, still it was a wise precaution never to take mutton underdone. Pork was the most injurious, and there was now no question that the measle inhabiting the pig was communicated through the pork eaten to the human family, and that a considerable proportion of the deaths assigned to epilepsy were due to the ova of entozoa taken in by the poor pork-consuming population. If the poor would only abandon their semi-civilised habits of eating raw or half-cooked meat the evil would soon cease altogether. Great varieties of entozoa were to be found in game, but they were, for the most part, innocuous. In fish they were more abundant than in either birds or mammals, but there was reason to believe that fish might be eaten either cooked or raw without danger to the consumer.

On Vegetables and Fruit as a Source of Entozoa.

(*By the same.*)

Dr. Cobbold said that there was no doubt that entozoa were introduced into the body with vegetable food, and were a source of one or more of the parasites that occasionally invade the human body. These entozoa might be taken in water drinking, but they were much more likely to be taken from water-cress and other vegetables of the kind. It was necessary with all vegetables that the greatest cleanliness should be observed in preparing them for the table. A large species of the tape-worm, discovered in Egypt, would, he was afraid, be brought to this country at some time from our colonies, and if ever it got place amongst us it would be difficult of extermination. The little thread-worm (ascaris) he had never been able to rear either on apples or pears, and there was no evidence to show that any species of entozoa was derivable from fruit. It was not likely that fruit was ever an intermediate habitation for any of the parasites which ordinarily occupied the human body. A great many evils in children were charged to eating unripe fruit, but, as far as entozoa were concerned, that fear was entirely groundless; if they should be so introduced, the chances were that the larvæ would be taken from the surface of the fruit. With regard to celery, cabbages, and all the ordinary market-garden vegetables, he might say that all decomposing animal and vegetable matter sustained entozoa, and the more filthy the water or liquid manure employed to secure the fertility of the garden, the more likely was a supply of entozoa to be taken with the vegetables grown upon the land. The most careful washing was, therefore, required, and it had been suggested that vegetables should also be soaked in salt before coming to table.

On Water as a Source of Entozoa.

(*By the Same.*)

Parasitic larvæ might be found in water that was to all appearance perfectly pure; but, speaking generally, it might be inferred that fresh spring water was perfectly innocuous. The same thing could not be said of water stored in large tanks in hot climates. The presence or absence of the larvæ of human entozoa in water was dependent upon the place from whence the supply came, and upon the condition of the water. The pork measle might be readily communicated to human beings by water; and there was a species taken from water, the habit of which was to esconce itself in the brain, causing death, which death the Registrar-General invariably set down as due to cerebral disease. The way in which this parasite reached the brain was from the stomach, through the circulating medium. There was a kind inhabiting dogs which was often communicated to the human being. One-sixth of all persons who died in Iceland perished from this parasite. If neither dog nor wolf existed we should get rid of these species altogether. No one need drink water impregnated with these entozoa. Water to which dogs had no access could not contain them; neither were they likely to be found in spring or well water. Open waters, into which the carcases of dogs were occasionally thrown, would probably contain them, and the eggs might be carried to food washed in such water. The danger would be got rid of if the water was always carefully boiled, filtered, or distilled; but a filter to be effectual ought not to pass anything larger than one one-thousandth of an inch. Sand and charcoal filters were of very little use. Paper filters should be employed. All entozoa not preserved for scientific experiments should be destroyed by fire, and under no circumstances should they be thrown aside as harmless refuse. He would press upon butchers, knackers, and others not to throw doubtful offal to dogs frequenting their neighbourhoods. With regard to fermented drinks, he believed them perfectly harmless. Even though impure waters should have been employed, the boiling of the wort would be alone sufficient to destroy any number of parasites. Unfortunately unfermented drinks, such as ginger beer, cyder, and the like, cannot be perfectly certain. All must depend upon the source and the supply of water. The same remarks were applicable to wines. Alcohol added to water was sufficient to destroy the parasitical eggs, but he questioned whether the amount of spirit in our home-made wines was sufficient for the purpose.

Some Observations on the Horse-chesnut: its Composition and Uses.

By John Davy, M.D., F.R.S., Ambleside.

Dr. Davy introduced his subject to the notice of the meeting by stating that the beautiful tree, the horse-chesnut, was deserving of attention for its usefulness not less than its beauty. He then recited experiments he had made on the fruit, the bark, and the leaves of the tree. Whether any of these parts may be serviceable as dyes can only be determined by trials on a larger scale than those he had made. Those on the shell, the bark, and the leaves are at least promising, and the same parts probably may be found useful in tanning and the making of ink. That the nut may be useful as the food of such animals as can relish it, judging from the composition, can hardly be doubted; indeed, there is certain proof already of the fact. In Switzerland it is regularly given to sheep. They are said to eat it greedily; being of a heating quality, it requires to be portioned out to them. Two pounds in a crushed state is the allowance each morning and evening. The mutton of sheep thus fed is in repute in Geneva, and is said to have

an excellent flavour. Pigs readily eat the nuts, and some horses do not refuse them. It is also stated that, deprived of its shell and crushed fine by grinding, the nuts afford with water an emulsion which is used in France in the manufacture of silk, woollen, and linen fabrics. The starch of the nut, with its mucilage and alkali, are probably the ingredients which are most serviceable. The refuse, it is said, mixed with an equal portion of pollard, may be employed as food for poultry. As the horse-chesnut flourishes in England, and is in so many places largely cultivated, is it not a desideratum that its products, now commonly allowed to waste, should be brought into use, especially its fruit?

The Use of Milk and Scotch Barley as an Article of Diet.

By George Frean, Esq.

"The properties and qualities of milk I leave in the hands of those who understand it much better than I do. The demand for that article of food, which the all-wise Creator has supplied us with from our birth, and makes so necessary and desirable to us to the end of our lives, has overtaken the supply, and the injurious effects are felt by all classes both in town and country. In towns it has led to adulteration and extravagant price, in the country to privation. The peasantry cannot obtain it as they formerly could, the demand for butter and cheese is such, and the skimmed milk for calves, lambs, and hogs, as to induce farmers and their wives to deny the sale of it to the surrounding cottagers. The effect of this will tell sadly on the rising generation. The question then comes—can a larger supply be obtained? It can, and the means are at hand. It is not generally known that the Government have a convict establishment at Dartmoor, in Devonshire. The convicts have been employed in reclaiming waste lands, and, after various experiments, are allowed to keep cattle: they have at this time one of the best herds of cows and calves in the county, in number 184, producing upwards of 100 pounds of butter per week, of delicious taste and quality, and this, too, on a comparatively small acreage of land, the peat land yielding nutrition in abundance. This is a sample and experiment on perhaps the worst and most unfavourable corner of 80,000 acres of land peculiarly adapted to produce grass when the surrounding country fails; it has had verdure on the tops of the mountains this summer, whilst all the surrounding country has been dry and barren. Repeated trials prove that this vast tract of land will yield grass and vegetables in abundance. The reason is plain: the accumulation of the decomposed vegetables of ages, abundantly supplied with water from bottom to top, it only requires lime and the sand, to be found there, or to be thrown on its surface to produce excellent mutton grass. The draining is to be done at very small cost, as the peat obtained for fuel will repay much of the expense. I have an account from a farmer, who kept accurate accounts, that he could obtain 100,000 quarts of milk per annum, which would leave him a handsome profit if sold at 2½d. per quart, on less than 200 acres of reclaimed land. It is estimated that nearly one-third of the lands in Great Britain, Ireland, and the British Islands are lying waste; a large proportion of this can be brought to produce vegetables, and it only requires the same amount of zeal and interest in the legislature as is employed in the beer and porter business to increase the product of milk to any amount required. Among the many benefits that would flow, the most important would be an unstinted supply of milk to the children of the labouring population. What excellent meals could be made of Scotch barley, rice, oatmeal, etc., with milk. What an excellent beverage may be obtained with Scotch barley, and skimmed milk, at small cost. What a vast increase of food for hogs, calves, lambs, etc. Thus increase of beef, mutton, pork, butter, cheese, wool, etc., may be obtained, besides great improvement in quality. Cottagers should have a garden. How is this to be brought about? I have given an instance where land, pronounced too hastily to be barren and unprofitable, has been turned to such profitable account as to warrant the extension. What has been done on the worst part of Dartmoor can be done over millions of acres in the United Kingdom and Ireland. It is surprising to find that about one-third of the lands in the United Kingdom are uncultivated."

The Relative and Special Applications of Fat and Sugar as Respiratory Food.

By Thomas Hayden, M.D.

The classification of food under the two heads of "calorificient," or heat-producing, and "nutritive," or tissue-forming, is now universally admitted by physiologists. The distinction is an important one, and founded upon the cycle of changes which carbonaceous and nitrogenous aliments respectively undergo in the construction, growth, and disintegration of animal bodies. Whilst, however, it is found that the nutrient or nitrogenous substances are all presented by nature's Great Author under the form of albumen, or the allied substances, gluten, caseine, or fibrine, and, in the complex process of digestion, after undergoing the preparatory change of conversion in the stomach, are directly received into the circulation. Fat, under any of these various forms, never so enters, being transmitted through the lacteal system of vessels and glands, but, after admixture with the lymph, is received into the general circulation, under the modified form of an emulsion. The salient points of contrast thus observable in the constitution of fat and sugar, as well as the remarkable divergence in the preliminary stages of their digestion, the preparatory processes to which they are respectively subjected, and the different channels by which they enter the circulation, must indicate some difference in the mode of their application to the great purpose for which they are both destined, the maintenance of animal heat. I believe these two substances possess different values as food; that they undergo different transformations, and, during these transformations, subserve distinct purposes of economy; that the period of their retention in the body is the same; that they are not mutually convertible; but that ultimately they pass out of the body under the common form of carbonic acid and water, and are jointly concerned in the production of animal heat. In the physiological state, oleaginous alimentary substances are always in the first instance assimilated, and occupy cells, whether of the adipose tissue or of the liver. In this summary I do not include the azotised fat of the nerves and nerve-centres named "cerebrine," which belongs to a higher order. As adipose tissue, fat, gives rotundity of form in moderate proportion, and beauty of configuration to the body, it serves as a soft and elastic nidus for delicate organs, as the eye and the kidney, and in relation to the former assists passively by its compressibility and resiliency in accommodating the organ to the vision of objects at different distances under the combined action of the recti and obliqui muscles. Finally, fat, as adipose tissue, enveloping the body, as it were, in a natural mantle, prevents rapid refrigeration, in virtue of its property as a bad conductor of heat. Thus it will be seen that, in the form of deposited fat, oleaginous food serves a variety of subsidiary, but still useful purposes in the animal body, independently of its great end of ministering to the supply of animal heat. It is universally admitted that it is necessary to the due performance of the various functions of the body that the vital stimulus of heat be maintained at the physiological standard; certain functions are termed vital, because the suspension of them, beyond a very brief period, is followed by death. Such are respiration and the circulation of the blood, to select such a familiar example. In the instance of both these important functions, the fatal consequences which must ensue from temporary interruption are amply provided against. The reserve and residual air in the lungs will sustain life, or rather render it possible to resuscitate the animal for several minutes after respiration has ceased, whereas, if these volumes of air have been expelled from the lungs by a heavier fluid, such as water, immediate death ensues, as shown by the Committee of this Association, appointed to investigate the subject of suspended respiration. Interruption to the supply or return of blood through one or more vessels is compensated for by the establishment of a collateral circulation. In a similar manner provision is made, in the fat deposited in the body, for the maintenance of animal heat during a certain period, under circumstances of total deprivation of heat producing food; but before deposited fat can become available for this purpose, it must undergo disintegration or disassimilation, and be reabsorbed into the blood. I would not be understood as denying that the adipose, like other tissues of the body, is constantly undergoing that process of gradual molecular destruction, or textual change, which is inseparable from living organised substance, and constitutes the principal condition of its existence. What I desire to convey is, that fat, being an assimilable substance, must be always in the first instance assimilated, and can, under no circumstances, be applied to the maintenance of animal heat before undergoing the twofold process of constructive and destructive assimilation. Amylo-saccharine substances are immediately and directly passed off from the blood, and are never assimilated in the proper acceptation of the term. Of the starch taken in as food, however,

a certain proportion escapes the converting action of the saliva, and is deposited in the liver, probably in the hepatic cells, whence it is drawn to supply heat when the amount of sugar in the food recently taken happens to be insufficient, or when the body is exposed to highly refrigerating influences." After describing some experiments of his own, Dr. Hayden continued—"The conclusions at which I have arrived, however, from the observations I have been able to make up to the present may be stated as follows:—The amount of fat deposited in the body is regulated by the absolute and relative quantity of oleaginous and saccharine matter in the food taken; both substances taken in a large quantity cause excessive deposits of fat. If the fat taken be in defect, even though the sugar be in excess, no increase in the deposit of fat takes place, but rather a decrease, obviously in consequence of ordinary molecular absorption, to which the adipose, in common with other tissues, is subject, not being counterbalanced by assimilation. If the fat taken be in excess, whilst the sugar is insufficient to meet the immediate wants of the respiratory function, still the deposit of fat may not undergo increase, but the contrary, apparently because a portion of that already deposited must undergo reabsorption into the blood for the purpose of supplying heat. Fat is, therefore, as a heat-producing substance, only supplemental of sugar, which is the ordinary pabulum of respiration. Saliva, like gastric juice, is secreted in quantity strictly proportioned to the immediate wants of the system, and quite irrespectively of the absolute quantity of food taken; a certain proportion of the starch of the food, varying according to the quantity taken and the necessity of respiration, escapes the converting action of the saliva, and is stored up in the liver. This liver-starch is being taken constantly back into the blood to supplement the respiratory elements of the food, and in the blood is converted into sugar, probably next into lactic, and finally into carbonic acid. Hence the presence of sugar, normally, in small proportion, in the blood of the right side of the heart; hence, likewise, its presence in the right side of the heart of animals fed exclusively upon meat, in whose portal blood not a trace of sugar is discoverable."

On the Lentil as an Article of Food.

By C. G. Monteith, Esq.

Mr. Monteith's paper was very short, and was as much classical and historical as scientific. He traced the history of the lentil from its earliest day, and showed it to have been an important article of food for many ages past. He then discussed its nutritive value, and gave it place as deserving of more consideration than it has of late received.

The Physiological Effects of Tobacco.

By B. W. Richardson, M.A., M.D.

Dr. Richardson's views on the physiological effects of tobacco were given in the following summary:—1. The effects that result from smoking are due to different agents imbibed by the smoker, viz., carbonic acid, ammonia, nicotine, a volatile empyreumatic substance, and a bitter extract. The more common effects are traceable to the carbonic acid and ammonia; the rarer and more severe to the nicotine, the empyreumatic substance, and the extract. 2. The effects produced are very transitory, the poisons finding a ready exit from the body. 3. All the evils of smoking are functional in character, and no confirmed smoker can ever be said, so long as he indulges in the habit, to be well; it does not follow, however, that he is becoming the subject of organic and fatal disease because he smokes. 4. Smoking produces disturbances: (*a*) in the blood, causing undue fluidity and change in the red corpuscles; (*b*) on the stomach, giving rise to debility, nausea, and in extreme cases sickness; (*c*) on the heart, producing debility of that organ and irregular action; (*d*) on the organs of sense, causing in the extreme degree dilatation of the pupils of the eye, confusion of vision, bright lines, luminous or cob-web specks, and long retention of images on the retina, with other and analogous symptoms affecting the ear, viz., inability clearly to define sounds, and the annoyance of a sharp ringing sound like a whistle or a bell; (*e*) on the brain, suspending the waste of that organ, and oppressing it if it be duly nourished, but soothing it if it be exhausted; (*f*) on the nervous filaments and sympathetic or organic nerves, leading to deficient power in them, and to over-secretion in those surfaces—glands—over which the nerves exert a controlling force; (*g*) on the mucous membrane of the mouth, causing enlargement and soreness of the tonsils—smoker's sore throat—redness, dryness, and occasional peeling off of the membrane, and either unnatural firmness or contraction and sponginess of the gums; (*h*) on the bronchial surface of the lungs when that is already irritable, sustaining the irritation, and increasing the cough. 5. The statements to the effect that tobacco smoke causes specific diseases, such as insanity, epilepsy, St. Vitus' dance, apoplexy, organic diseases of the heart, cancer and consumption, and chronic bronchitis, have been made without any sufficient evidence or reference to facts; all such statements are devoid of truth, and can never accomplish the object which those who offer them have in view. 6. As the human body is maintained alive and in full vigour by its capacity, within certain well-defined limits, to absorb and apply oxygen; as the process of oxidation is most active and most required in those periods of life when the structures of the body are attaining their full development; and as tobacco smoke possesses the power of arresting such oxidation, the habit of smoking is most deleterious to the young, causing in them impairment of growth, premature manhood, and physical degradation.

What is the Best Method of Estimating the Nutritive Value of Foods and Dietaries.

By Edward Smith, M.D., F.R.S., London.

There are four methods in use for the estimation of the nutritive value of foods. 1. The weight of the food; 2, the nitrogenous and carboniferous elements in food; 3, the nitrogenous food, carbon and hydrogen (reckoned as carbon), in food; 4, the nitrogen and carbon in food.

By Weight.—To estimate the relative nutritive value of dietaries by the gross weight of the food supplied assumes that there are no material differences in the nutritive elements of food, or, if there are material differences in the construction of dietaries, there is such an uniform relation between the quantities of the several kinds of food of which they are composed, that no important fallacy will be admitted. It is also usual in this method to omit all reference to fluid foods, and to limit the calculation only to the so-called solids. It is scarcely needful to state that in each of these particulars there is great error.

By the Carboniferous and Nitrogenous Elements.—When the estimation is made upon these bases, it is not indicated that these two elements are separately found in foods, so that some foods are purely carboniferous, and others purely nitrogenous, but in most kinds of foods both elements are found in combination. By this plan we may satisfy ourselves of the nutritive value of foods, but it is one of much complexity, half way in the calculation, and demands special knowledge for the final estimation. Thus, but few know that the amount of carbon in starch, fat, and sugar is about 36, 76, and 40 per cent., and in the nitrogenous foods about 40 per cent., whilst in the latter the quantity of nitrogen is about 15 per cent., and if this be known it is not easy to remember it or to work out the laborious calculations necessary to determine how much carbon and nitrogen are found in a given weight of food. It should give place to an easier and more complete method of estimation.

By the Carbon, Nitrogen, and Hydrogen, reckoned as Carbon.—In this manner the carbon and nitrogen contained in all the elements of which a given food is composed, have been calculated in the percentage quantities, but, in addition, the free hydrogen, viz, that quantity of hydrogen which is in excess of the oxygen in the food with which it could have entered into combination, has been calculated and added to the carbon, and the whole entered as if it were carbon. For the purposes of the physiologist it is important that the free hydrogen be not added to the carbon.

By the Carbon and Nitrogen.—The most complete, as well as the simplest, method of estimation of the nutritive value of foods is to calculate the carbon and nitrogen in the whole of any food, without reference to the compound elements which the food may contain. This may be so far carried out that the total quantity of each in any weight of food may be calculated. The author has constructed tables which show at a glance the quantity of each element found in every weight of food which can enter into a daily and weekly dietary for a single person, or for a family, and from such tables the total nutritive value of a dietary may be calculated on in a few minutes instead of a few hours. This is the method which he recommends for universal adoption by scientific men, and, under their sanction, by all those who desire to use such knowledge.

Dr. Smith concluded by putting the question, How shall we estimate the food which is necessary to the system? By that which any given class of persons is known to obtain, or

by that which a scientific inquiry into the excretions, conjoined with a knowledge of the state of the health, would supply. He said:—"The former is open to the fallacy that the persons in question may be over fed or under fed, since their measure of the food is, within limits, that of the means to acquire it; and yet it offers these positive facts that those persons do live on the dietary in question, and under its influence have a certain duration of life and a certain yearly amount of sickness—values which can be duly estimated when compared with those of other sections, or of the whole community. Assuming that the class in question stood high in these evidences of health, as compared with other classes, our confidence would be high also; but it would not thence follow but that another dietary might not yet further tend to improve health and prolong life. The best class in this and other communities may not have reached the *ultima thule* of health and longevity. But with all its defects it is most desirable that this information should be within our reach, and that Government should be induced to institute such inquiries upon a large scale. Science is under obligations to our own Government for having taken some steps in this direction; but it remains to urge them to advance still further. So far as I know, no other nation has seriously entered on the inquiry. The latter method is conclusive when the investigation refers to the effects of different foods; for by it, it may be demonstrated what proportion of each enters the circulation, and in what degree it influences the vital transformations; but when the aim is to ascertain the degree of sufficiency of a whole dietary, it is too limited in its scope, since it must be made upon one or a very few individuals, and could be regarded as undoubted in the conditions only in which it is made, and it assumes that which recent inquiries disproves—that there is not great diversity in the amount of food which large masses of the people obtain; that the differences lie within not wide limits."

The Nutritive Elements in the Dietary of the Labouring Classes.

(*By the same.*)

Farm labourers obtained in England, 13·2 oz.; in Wales and Anglesey, 15·8 oz.; in Scotland, ·16 oz.; and in Ireland, with the maize dietary, 14·1 oz.; yielding an average of 14·1 of carbon. The free hydrogen, when reckoned as carbon, makes the following additions:—England, ·84 oz.; Wales and Anglesey, ·89 oz.; Scotland, 1·09 oz.; and Ireland, 1·17 oz. Scotland thus stands at the head, and England at the foot, but a yet higher amount is found in the Anglesey dietaries, viz., ·19·8 oz. Indoor operatives universally obtained a less amount of carbon. Even the well-fed cotton operatives, in times of plenty, obtained only 13·4 oz., a quantity almost identical with that of English farm labourers, but the stocking-weavers had 10·9 oz., shoemakers 10·3 oz., needle-women, 9·4 oz., kid-glovers 9·3 oz., and least of all silk weavers 9·0 oz. Hence the farm labourer occupies a much higher position in his dietary than has heretofore been assumed; a position also somewhat higher than the standard quantity which I estimated to be necessary, from experiments upon myself, viz., 12·5 oz. of carbon for the hard working classes. Whilst the grand average in farm labourers was nearly 15 oz. of carbon, that of three of the indoor labourers was 9¼ oz., and the average of the whole was only 10 oz. As to nitrogen, the farm labourer in England obtained daily 242 grains, in Wales and Anglesea 290 grains, in Scotland 335 grains, and in Ireland, with the maize dietary, 347 grains, yielding a grand total of 300 grains daily. Anglesea again stood the highest of the large divisions of the kingdom, and offered 360 grains daily. There is a marked contrast between these returns and those of the indoor labourers, if we again except the well-fed cotton operatives, whose dietary furnished 249 grains daily—a quantity almost identical with that of the English labourer—for stocking weavers obtained only 188 grains, shoemakers 190 grains, kid-glovers 175 grains, silk weavers 164 grains, and needle-women 135 grains. Hence, whilst the average consumption by farm labourers was 300 grains, that by indoor labourers was less than 200 grains; and thus, contrary to general belief, the inhabitants of country districts obtain more food than those of towns. Such is the statement of the food obtained by different classes of the community; some, doubtless, as a whole, and all containing many members which are ill-fed. It must, however, be added, that a subdivision of the class of farm labours, viz.: those living at the farm-houses obtain far more food than the above quantities represent, and are, doubtless, amongst the most fully fed persons in the kingdom. In Yorkshire they eat 19½ lbs. of bread, 7¼ lbs. of meat, 1 oz. of butter, 28 pints of new or skimmed milk, and 7 lbs. of vegetables weekly, besides fruit in summer, and beer at all times *ad libitum*. In Nottinghamshire the quantity of bread was the same, but that of meat was 7 lbs., of bacon 3½ lbs., of milk 6 pints, of good ale 7 pints, besides cheese, etc. The quantity of carbon and nitrogen in the former was 26½ ozs. and 570 grains. There were also some farm labourers living at their own homes, who, in Ireland, ate 35 ozs. of carbon and 645 grains of nitrogen; in Scotland, 27 ozs. of carbon and 500 grains of nitrogen; and in England 23 ozs. of carbon and 430 grains of nitrogen per adult daily. On the other hand, some of this class in England obtained only 6½ ozs. of carbon and 125 grs. of nitrogen. Extremes yet wider apart are found when both in-door and out-door labourers are considered together. Thus, one needlewoman ate less than 4 ozs. of carbon, and less than 100 grains of nitrogen, and many obtained less than 5 ozs. of carbon and 120 grains of nitrogen daily. So widely apart are these numbers, that the highest is nine times greater in carbon, and twelve times greater in nitrogen than the least, and yet both alike are the daily food of an adult human being. The Lancashire operatives offer, however, the least exceptionable information as to the diverse quantities of food which the human body can take for lengthened periods, and yet remain in good health under both conditions. Thus, on the average of the whole inquiries, they obtained 13⅓ ozs. of carbon and 250 grains of nitrogen daily, in good times; whilst lately the quantity was reduced to 9½ ozs. and 185 grains. Even the same person ate at one time 20 ozs. of carbon and 373 grains of nitrogen, and at another 11 ozs. and 188 grains; and another one reduced her dietary from 14¼ ozs. to 6⅓ ozs. of carbon, and from 233 grains to 108 grains of nitrogen. With such facts as these before us, how difficult it is to prove what food is really required, even by the classes from which they have been derived. We cannot assume that 35 ozs. of carbon are necessary for a farm labourer, when others placed in very similar circumstances obtain only one-fifth of that quantity. Neither, on the other hand, are we entitled to affirm that the least quantity is sufficient, seeing an ordinary mode of estimating the health of a living man is not exact, and also seeing that such small quantities are but rarely found. The proper quantity lies somewhere between the two, and possibly where the average occurs; but since men are not fed on the average, but as individuals, to assume that, is almost to assume the whole argument. When different classes of persons are included in the inquiry, we may be prepared, from general knowledge, to find some difference in their wants; but can it be assumed with safety that because some needlewomen live on 4 or 5 ozs. of carbon daily, and then keep in moderate health, that such an amount only is *necessary?* References to this class are assumptuous, and to make them is highly unscientific; but still, unsatisfactory as is this basis for the construction of dietaries, all exact scientific work must be tested by it.

Dietary of the Agricultural Poor.

By the Rev. J. Slatter.

The Rev. J. Slatter presented the results of an inquiry into the dietary of his poorer parishioners (in the southern districts of England), made during the spring of the present year. The solid part of the diet consisted mainly of bread, more or less bacon, potatoes and other vegetables, occasionally cheese, butter or lard, and sugar. Bread constituted the bulk of the nutriment consumed by an agricultural population. Potatoes and vegetables could not usually be grown by the agricultural labourer upon his small patch of ground in sufficient quantities to insure a supply throughout the year. Cheese, butter, lard, and sugar were variable elements of diet; but rice and oatmeal were never used. Fresh meat was also wanting. Herrings were not uncommonly procured. Milk was, perhaps, the most serious want to be regretted. Tea was the ordinary beverage; beer was rarely drunk, except in a way injurious to health and morals—generally in a selfish indulgence of the man at the expense of his wife and children. The general household arrangement was to cook on the Sunday a piece of bacon, of which a small quantity was apportioned on that day to the children, but, after the Sunday meal, all that remained was eked out cold for the man's dinner, the children, and generally the women, being without animal food during the rest of the week. The quantity of nitrogen supplied to the children was, as a rule,

sadly deficient, and the quantity of nutriment taken by the parents was very inadequate for hard work. There were immense difficulties in inducing the poor to amend their dietary, and the sure progress of philanthropic efforts in their education must be trusted to for the remedy. The advance of prices and the enclosure of commons had tended to deteriorate the diet of the poor, the one by diminishing the amount of offal parts of fresh meat, which it was once in their power to buy cheaply, and the other by diminishing the supply of milk so desirable for all ages, but especially for young children.

Discussion.

Dr. Bailey considered it proved that the labouring classes through most parts of England were underfed, and he believed the worst of the evil was that they were underpaid. A farmer going from the North of England into Dorsetshire with the expectation of renting land at a low rent, and seeing a labourer working in the field, said, "My man, you do not seem to sweat at your work?" and the reply was, "No, sir, I cannot afford to sweat at 10d. a day." A farmer, where wages were higher, when asked how it was that he paid his labourers so well, said that he could not afford to pay them less than 2s. 6d. a day, for he found that less wages produced less work. They might be quite certain that low wages produced a scanty diet. In Ireland, when a railway was first commenced, a body of navvies was brought over from England, and they were paid at the same rate as here. The Irish labourers who worked with them became discontented, and complained of the hardship and injustice of their position, upon which the overseer of the works, who was an Irishman, told them that if they worked as the Englishmen were working, they should be paid the same wages. The result was that they improved in their labour, and were very soon earning the same pay as the English navvies, being sustained in the harder work by the improved diet which their increased wages enabled them to procure. One might as well expect that a fire would burn with a scanty supply of fuel, or a steam-engine work with a deficient supply of coal, as that a man could labour upon a meagre diet. Upon considerations, therefore, of humanity, as well as of political economy, we should, as much as possible, encourage an improvement in the diet and an increase in the wages of the labourer, at the same time that we did all in our power to check intemperance.

Professor Bennett thought that something should be done to popularise the subject. If they could tell a man that by eating so much bacon, or so much bread, he would produce such and such results, more would be done than by merely showing how much nitrogen or how much carbon certain articles of food contained.

Mr. Green concurred that the greatest evil with the agricultural poor was the want of sufficient pay; but another thing which tended to keep them badly off was ignorance of the means of making the best of the provisions they bought. In this city there was a large workhouse, containing on the average 700 persons, and in the winter more; and if any one would take the trouble to go over the house they would find a healthy population, old, middle-aged, and young. The diet did not average in cost more than 1s. 9d. to 2s. 3d. a-week, varying with the price of provisions. The inhabitants were all well fed. They were amply supplied with everything they could require, but the greatest economy was used in the preparation of the food. It was one great fault among the poor of this country, and of Ireland also, that they did not make the best of their food. Whatever was required for the sick poor was provided at the workhouse, and, as illustrating this, he mentioned that last year they consumed two butts of sherry.

SPECIAL DEBATE.

THE PHYSIOLOGICAL ASPECT OF THE SEWAGE QUESTION.

The section held a final meeting on Wednesday, September 21, to discuss the question of sewage. The meeting was largely attended.

Professor Hughes Bennett opened the debate. He placed before the members the following propositions:—

1. *That atmospheric air, strongly impregnated with odours of various kinds, is not necessarily injurious to health.*

2. *That atmospheric air without smell is often most dangerous.*

3. *That smells, as smells, are neither injurious to health nor are they a nuisance to those who live amongst them.*

4. *That deleterious gases arising from effluvia are only injurious by being infused and carried into the blood, and to this end they must be sufficiently concentrated, and the atmospheric air proportionately diminished.*

5. *That emanations from drains and from sewage entering running streams are in no way dangerous.*

6. *That typhoid fever cannot be proved to originate with the fermentation of drainage water.*

7. *That improving drainage by costly works does not necessarily remove disease.*

On the first of these propositions Professor Bennett said he had recently come from a part of the shores of the Mediterranean where large tracts of land were employed in that country for odorous flowers. The inhabitants were, for the most part, unconscious of the odours with which the air was impregnated, but strangers were conscious of it directly. This atmosphere, however, was not productive of epidemics, and they never would have any gigantic propositions for getting rid of these perfumed plains. Then there was in one part of Paris an establishment for the distribution of manure; the smell was no doubt very great, but the advantage arising from it was so important that the establishment still existed. No great injury had been shown to result from it. The Thames in 1858 was in a terrible condition. It had been distinctly proved, on the best evidence, the evidence of those who have best interest in finding out that this state of things was a source of disease; that the condition of the Thames at the time had never been productive of the slightest bad effect. When he made that statement in the Chemical Section the other day he was flatly contradicted, but he had the evidence of Professor Rawlinson and others to show that no disease at all was engendered in London from that source. He had just come from Naples, and he had paid particular attention to the condition of that city. It was a very volcanic region, and bubbles of sulphur and hydrogen were continually springing up in the sea all round the coast, while the drainage was so managed that it all came down to the bay, which was overlooked by the best houses. The drains formed through the city were large slits, which threw the smell up to the atmosphere, and the odour was so great that he never smelt anything like it elsewhere. The people were so satisfied that this smell was injurious that rents at the top of the houses were twice as much as the rent below. He made inquiries, and found that Naples was not more subject to typhoid or other fevers than any other city, and he was convinced that there was no excess there. He had visited all the large Hospitals in Naples, and amongst them the Military Hospital, which contained at the time 800 patients. The terribly dirty condition and effluvia at that Hospital were such as he could not attempt to describe, and yet the Medical superintendent told him that there was no fever caused in that way. There was only one case of typhoid fever in the house at the time, and there was scarcely an Hospital in Europe where only one case of typhoid fever would be found out of 800 patients.

In support of the second proposition, he referred to the marshes of Essex and Lincolnshire, the low grounds of Holland, the Campagna of Vienna, the Delta of the Ganges, the Guinea Coast, and other parts of the world, where the most pestiferous fevers prevailed epidemically in their worst form, and yet these effects were never attributed to bad odours, nor did bad odours exist to any extent. The conclusion from these two propositions was, that there was no necessary connection between bad smells and deleterious gases. Some deleterious gases, such as carbonic acid and others, had no smell, while there were others, such as carburetted and sulphuretted hydrogen, that had smell, but in which the absence or presence of the smell had nothing to do with their unhealthy properties.

On the third proposition he urged that people became accustomed to the smells. The sense of odour was really paralysed, as any one might test by holding to the nose for any time an odoriferous flower. They were only strangers to a neighbourhood, therefore, who detected its bad smells.

In proof of the fourth proposition, he said that workmen descending into pits and wells, where gas had been shut up, often met with danger, but those who exposed themselves to the effluvia of open drains were not affected. The men who worked in the large drains of London were not more particularly affected as regarded fever and similar diseases than others of the same class differently employed.

In respect to the fifth proposition, he stated that, according to statistics published by Dr. Littlejohn, officer of health of

Edinburgh, who was employed by the magistrates of the city, and was, therefore, a witness on the other side, that the cases of fever in the year 1863 were four in the upper water district and one in the lower, out of a population of 13,321 in the former case and 3866 in the latter. Out of 17,000 inhabitants, therefore, there were only five cases of fever amongst those who lived on the border of a very foul stream; whereas, when they went to the districts surrounding the Iron Church, they found no difference in the number of cases. With regard to cholera, the cases were 30 or 40 times as many in the districts of St. Giles and the Grass Market as in the so-called infected districts. According to the Registrar-General's return, the death rate of the Leith district was 17·62 against 24·5 over the whole city.

Regarding the sixth proposition, he argued that when an epidemic attacked a locality, it was usual to find out some obvious physical cause, and there was no difficulty in finding plenty of illustrations to support the view they adopted. His own view was that we were profoundly ignorant of the causes of epidemic disease. It had been said that typhoid fever originated with drains, and there were a great many coincidences to support that doctrine. There were a number of instances in which fevers had originated in a town where something had gone wrong, where a drain had been opened near, or where the smell was more powerful than usual. If they, therefore, confined their attention to striking coincidences, there appeared plenty of grounds for the theory. But they should inquire further. The Bradford epidemic was proved to have originated with the drinking of impure water, and the great epidemic in Edinburgh in 1847 and 1848 followed the failure of the potato crop, and ceased when the scarcity of potatoes ceased. Without going into a great many examples, he might say that there were innumerable cases of emanations that had never caused epidemics, to counterbalance those that could be cited on the other side.

On the seventh and last proposition Professor Bennett dwelt at great length. He urged:—In Paris, where great improvements had been carried out, and where the streets built by the present Emperor were arranged according to the most approved discoveries in modern drainage, epidemics had not been diminished. The old town of Edinburgh had no draining at all up to a recent period, and old pupils at the University could remember that some years ago a case of typhoid was unknown there. Typhus used to be the prevailing form, while typhoid prevailed abroad, and as foreign Physicians came over to Edinburgh to study the former, Edinburgh went to the Continent to study the latter. Typhoid fever, however, had recently appeared in Edinburgh, and, strange to say, it appeared to have followed the improvements there. He did not mean to say that the fever was caused by the improvements, but the coincidence was curious. It was said that the introduction of the water-closet system had brought that poison into the houses; that owing to an insufficient supply of water the noxious gases now escaped inside instead of outside. That was a very plausible argument, no doubt; but when he found that the disease in Edinburgh followed the failure of the potato crops, he was induced to believe that fevers originated from other sources than drainage. When they came to investigate what these sources were, they entered upon a very wide field of inquiry. He considered that proper food and drink had much to do with the question. He had read a great deal of the cesspools, and a paper was read at the Edinburgh meeting, in which every cesspool was said to be a focus of disease. That might be so, but not on the ground on which it was put by the author. It was quite clear that where cesspools existed the ground round them got saturated with the gas, and in that way animal matter, in a state of putrefaction, found its way into wells. The water was thereby poisoned, and drinking such water was favourable to disease. Bad water, on the other hand, was often very bad to the taste, but it did not, therefore, follow that it should be injurious. In the case of a besieged town, when the inhabitants were left in a nervous condition, and there was a want of food, epidemics sprung up, and crowding and poverty were also fruitful sources of disease. The great seats of fever in our towns were the narrow closes where the dwellings had been badly ventilated, and where insufficient and bad food and many other injurious agencies were at work. If he were to pick out any one of those agencies, and say that it was the cause of fever, he should be reasoning very erroneously. He had heard it said that the fastidious tastes and feelings of Englishmen were opposed to all those plans which were found to work so usefully in other countries, in France, as in Germany, and even in China. They must endeavour to prevent the public from adopting partial or erroneous views upon this question. Attention ought to be directed to the prevention of the pollution of our rivers and streams, and to the consideration of how the sewage of towns could be best utilised, so as to return to the earth the fertilising qualities that had been taken from it. Human excrements, like those of all other animals, if properly employed, so far from being poisonous and injurious, were, in truth, the source of the growth of the vegetable, and thus of the animal world. The engineering, agricultural, and chemical parts of the question he had purposely avoided. It would be enough if in that section they could succeed in arriving at the conclusion that emanations from human excreta, or sewage of towns, were not so dangerous or injurious to health as was generally supposed.

Dr. Livingstone entered his protest against being thought an advocate for stinks, but he believed it was most important to know that stinks were not the cause of fever in Africa. That was the conclusion to which his and Dr. Kirk's experience led them. He would give one instance in which he particularly noticed that a very bad smell had no effect upon the health. When they came down to Nyanza last February, they found that a large portion of the water of the river ran into a marsh about ten miles below, and after passing through the marsh, it fell into the river at a point lower down. When it came out of the marsh it was as black as ink, and had a most abominable smell. They were obliged to stop at night in the midst of this smell, and they could not for a moment forget its presence. The white paint upon the two ships was turned quite black; so black, that the colour could not be washed off; all the brass work was turned to a bronze hue, and even the ropes were discoloured. He thought they were in for a good touch of fever, and he inquired of the natives if they had ever observed serious effects following these phenomena, but he was told they never produced illness. This was actually the case as far as he and his colleague were concerned. From this and all their experience in Africa, they came to the conclusion that fevers did not come from bad smells; he was of opinion that bad smells ought to be got rid of as soon as possible, but it would be a great mistake if Medical men, or any one else, supposed that fever came from the presence of bad smells. He wondered very much at the chemists saying anything about a bad smell being prejudicial to health, for he remembered well when he was studying chemistry, that in the laboratory there was a perpetual atmosphere of sulphuretted hydrogen. At first this was very offensive, but in the course of time they got used to it, and he never found that any one of his companions were the worse for it.

Dr. Kirk could confirm, from another case, Dr. Livingstone's statement. When passing on one occasion by the side of a lake surrounded by mountains, they found the water much as Dr. Livingstone had described it in the instance he had mentioned, and yet in that neighbourhood there was never any serious fever. The health of the people was uninjured, though they were drinking the water, and to get it they had to wade out amongst the reeds, the decomposing vegetable and animal matter throwing off bubbles of fœtid gas all the time. The water was used commonly for drinking purposes. We were only there one night, but for about twelve hours we had nothing but that water to drink. We drank it without boiling. We saw the converse also. At one place, where the atmosphere varied from 80 to 100, when the grass was all gone and the leaves were off the trees, and the walls were free from decomposing matter, they suffered much. It was curious to note that passing a day in the main grove swamps, where they never saw the sun, the fever did not come on, but on the following day a heavy perspiration came on, whether in sleep or exercise, staining the clothing, and in that way perhaps the malaria passed off.

Dr. Macadam admitted that there were other causes than drainage affecting the mortality and general health of the people. Food and drink unquestionably had their influence in that respect, and proper ventilation was also an important matter. But all this did not upset the notion that bad drainage was one cause of a high rate of mortality; so much so that in the system complex organic matters are broken up and spread into the air, and there is little difference in the matter we then expelled and that thrown from our bodies after death.

Dr. William Budd could not agree with Dr. Bennett that they knew nothing of the nature, source, and growth of these poisons, and he was sorry to find that their friends north of the Tweed, generally so far ahead, had lagged so far behind in regard to this matter. We plant the disease, we note its

development and the crop produced— the whole sequence of the phenomena is visible to the eye of the observer. His idea was this—and it marked exactly the degree and manner of difference between Dr. Bennett and himself—that sewers never generated their poisons, but that they distributed them. The whole view of the influence of sewers in the generation of these epidemic disorders arose from the fact that the specific poisons which were the cause of the disease were eliminated from the body and carried into the sewer. Typhoid fever belonged to the same group of disorders as small-pox. It was a contagious disease like small-pox ; both had their latent period. It was distinguished by a specific eruption, and both, as a rule, occurred but once in a life. The only difference was, that the eruption which in the one case appeared upon the skin was upon the intestines in the other. At present in this city there were twenty or thirty persons suffering from these diseases, and discharging day and night the specific poison into the sewer ; and it was in this way that the sewer acted on the distribution of the disorder. This view explained everything. It reconciled all differences, and it showed that while bad smells and even gases had by themselves no power to generate their contagions, they might become the vehicles of most dangerous disease. We never should get very far in the work of prevention of these great scourges until we realised and grasped effectually the cardinal truths that it was in the living body alone that these poisons were generated, and that it was from the diseased surfaces of living bodies that the pestilential matter was given off. There was one great obstacle to the reception of these views, and that was in the persistence, in spite of evidence to the contrary, in the miserable old crude, unscientific delusion, that foul gases were the actual causes of these contagious diseases. This matter had been ventilated for many years, and it was high time that some verdict should be given upon it. With a view, therefore, to bring the present discussion to a practical issue, he ventured to propose a resolution to the following effect :—

"That it is desirable that a committee be appointed to report to the Association at some future meeting on the following question, viz. : Whether the specific agent which is the cause of typhoid fever be ever generated *de novo* out of common sewage, or whether sewers only propagate this fever by the determination of the germ contained in the liquid discharge from people already afflicted with the disease."

The resolution was seconded by Dr. Richardson, and carried.

Dr. Richardson said it was refreshing, after a lapse of eight years, to find thus publicly accepted the principles first laid down by that illustrious, but yet little recognised Physician, the late Dr. John Snow. That a mere bad smell could never be the cause of a specific disease was first taught and demonstrated by Snow, who, from the year 1848 to 1858, in good report and evil report, maintained unhesitatingly this great fact. So far as this principle went, he (Dr. Richardson) concurred with Dr. Bennett entirely ; but there were some minor points in which he must differ with him. He could not admit that they knew nothing of the origin of these epidemic poisons. They had, if not an actual, a proximate knowledge of all epidemics and their origin. Typhus fever, he could prove, arose from low and bad diet, and from overcrowding. With regard to typhoid, they had the clearest proof that the excreta of the sick produced the disease, and that it travelled mainly by water. Dr. Salisbury, while with the United States army, had observed that a certain number of men rose every morning afflicted with camp measles. This disease was not different in any respect from the measles of infancy, and it was noticed that it did not attack those who had had it in early life. Upon inquiring into the origin of the disorder it was found that the straw upon which the men were sleeping was covered with a description of fungus, and it was found by actual experiment that this fungus propagated measles by inoculation. There were other classes of disease which occurred in epidemic form, with regard to which they must exclude all idea of poison. Croup, it had been brought almost to a proof, depended upon atmospherical conditions, and was beyond control. There were three other points, in regard to the effect of smells, to which he had to refer. In the first place, he went with Dr. Bennett entirely in saying that no organic poison could spring *de novo* out of sewage matter. It had been proved, nevertheless, by the experiments of Dr. Barker, of Bedford, which experiments he (Dr. Richardson) had witnessed, that the inhalation of sewer air produced in animals peculiar symptoms so long as they were exposed to it. Cats, dogs, and every kind of domestic animals had been subjected to air from sewers, and in all cases the symptoms were the same as those observed in human beings inhabiting close, ill-ventilated places—hot skin, quick pulse, and diarrhœa.

In the second place, while the temperature of the air of a town was low, and there was little evaporation from sewers, persons residing over sewers might go on for a long time without disease ; although the specific poisons of disease were secreted in the sewers ; but when the temperature rose, when there was drought, then the specific poisons were distributed with the water in evaporation, and diseases broke out. It was, therefore, of great importance that there should be such drainage as should absolutely and surely convey the poison away. He did not know that it was an expensive drainage that was required. He did not know that good drainage consisted in making such immense sewers as had been made on the banks of the Thames ; but the sewers should be smooth, so that everything might pass, and there should be the most perfect flushing.

Lastly, Dr. Richardson maintained that the presence of impure air derived from decomposing organic matter, intensified the violence of the communicable disorders, except, perhaps, in the case of scarlet fever, which disease, he believed, was as fatal in the palace as in the veriest hovel.

Mr. McLaren remarked that the sewage matter from Edinburgh was carried away so rapidly by the river that there was no time for decomposition to take place. Looking at the outfall, one would think that it was the waste of paper-mills, or some other manufacture, that was being carried off, and not the drainage of houses. The only ground upon which the Edinburgh bill was promoted was that of the bad smell ; but every one who had spoken in that discussion had admitted the entire fallacy of the supposition that bad smells were necessarily the cause of serious diseases. It was difficult to come to any conclusion while such various opinions existed ; but probably the clear and beautiful exposition of the manner in which sewers distributed the poisons of disease given by the last speaker afforded a reconcilement of the points of the controversy.

Mr. Michael would be sorry that it should go forth without some contradiction, and for the gratification of a party in the State who were always anxious to retard improvements, that bad smells in the atmosphere might continue without injury to human beings. For every case that Dr. Bennett could produce of the innocuousness of bad smells, he could produce two to prove them seriously injurious. He defied Dr. Bennett to get over the Cowbridge case, where a number of young, strong, healthy persons, dancing in a ball-room, were within six days attacked with fever, evidently from an old drain which existed under the room, and the smell from which had been noticed during the evening.

In correction of Mr. Michael's statement of the Cowbridge epidemic, it was stated that a patient suffering from fever was actually removed from the house in question to enable the ball to take place, and the water, of which a large quantity was consumed, was taken from a well adjoining the drain under the ball-room.

Mr. Ross mentioned that the number of fever cases at present coming into the London Fever Hospital was unprecedented. Out of twenty-seven admitted in one day, twenty-three were described as typhus, and the rest as typhoid, and and this access was attributed to the drought. He believed it was explained on the suggestions laid down by Dr. Richardson.

Dr. Crisp took the same view as Dr. Bennett. He did not believe we knew anything about the origin of epidemic diseases, and criticised severely Dr. Richardson's statements, especially as to the origin of measles. His experience in cholera had been that those who followed the dirtiest occupations were most exempt from the disease.

Dr. Cobbold stated that the excrementitious matters thrown on the fields were often charged with parasites, which, brought down by water, gained access into drinking water, and became sources of disease, especially of disease of the brain. This was a point not to be lost sight of in a discussion.

Professor Wanklyn confirmed the view that chemists engaged in organic research lived in bad smells, and chemists were not an unhealthy class of men. It was of the utmost possible importance that the absence and connection between bad smells and that which really did produce epidemic disease of all kinds should be clearly understood.

Mr. Gilbert thought no one would assume that a smell, as a smell, was a source of disease, or that a smell arising from decomposing animal or vegetable matter was an indication of the presence of conditions under which disease was to be

expected; but it was an indication of conditions of the atmosphere which would reduce the body to a low state, and that low state would make it more liable to take disease than it otherwise would be. The more he considered the matter of the water supply, the more was he convinced that the sewer system required modification. To go back to the old plan was simply impossible; and a system which he had seen in operation, of boxes containing some preparation, destroyed the most valuable qualities for manure. He urged the importance of attention to the ventilation of sewers, which might be effected by charcoal receivers at the highest entrance of the drain. In two or three towns, where epidemics had broken out, they appeared in the part which was the best drained, and that he believed was to be accounted for by the absence of ventilation, and consequent escape of noxious gases into the dwelling-houses.

Dr. Paul said the result of carrying out sewers to every house, and the introduction of the water-closet system, had been, as was seen in a marked manner in the pollution of the Thames, to introduce a most obnoxious condition of rivers. The enormous sewers now in course of construction, with a view to remedy this state of things, would waste the fertilising material which would be most valuable if utilised; but the population higher up the river sought to accomplish a like result, and their sewage would be discharged near the spot where the metropolis obtained its present water supply. All these measures proceeded upon the erroneous assumption that bad smells were injurious to health, and a strong illustration of this was found in the fact that in Edinburgh, that district which was the most affected by bad odours suffered the least from cholera when that disease was prevalent. Results of this kind led them to go back and to ascertain whether the fundamental principle was not wrong, and whether some other system of disposing of town refuse should not be substituted for the sewers.

Mr. Blair said some progress had been made when it was generally admitted, as it had been in this discussion, that a bad smell was not necessarily a cause of disease. In Manchester, after a long contest, it was determined to adhere to the old cesspool system, and he defied any one to show that the town was not as free from fever as any other town of equal population where a different system had been persued. Men who worked in sewers, and nightmen, were, it was known, as healthy, if not more healthy, than those whose employment was sweeping the streets. The whole cost of the removal of the sewage of Manchester to the fen lands of Lincolnshire was paid for by the price it brought.

Dr. Davy agreed that people might by custom resist the injurious effects of bad smells; but he was still of opinion that the power of injury did exist, though the effluvia did not produce typhoid fever or other similar diseases. As regarded the epidemic diseases, he agreed with Dr. Bennett that they were independent of bad smells, and that they arose from causes which were at present unknown.

Dr. Bennett, in reply, said that he had succeeded in the object he had in view, which was to provoke discussion, and he should leave the room with the idea that a great deal of information had been elicited that would be useful in the solution of this important question. He had never said that bad smells were good things. He disliked them as much as anybody; but the great point he wished to force forward was that the effect of smell upon the health of the public had been greatly exaggerated.

The Section closed its sittings with a cordial vote of thanks to the President, Dr. Edward Smith.

SECTION D.—ZOOLOGY.

Essential Points of Difference between the Larynx of the Negro and that of the White Man.

By Dr. Geo. D. Gibb.

[Dr. Gibb has requested us to insert the following more correct abstract of his paper on the larynx of the negro.]

The author had examined the larynx of the negro in the dead and living in fifty-eight instances, and the result justified him in arriving at certain conclusions, to be confirmed or modified by further experience. These were the almost invariable presence of the cartilages of Wrisberg, which were either quite rudimentary or absent in the white race, with some rare exceptions; they are present in the old and young of both sexes in the negro, probably more fully developed in the prime of life; their general presence in the negro and their absence or rudimentary condition in the white race prove them to be characteristic of the former. The true vocal cords in the negro, instead of being horizontal and nearly in a plane with the general strike of the floor of the ventricles—a characteristic almost never-varying in the white race—are represented by an oblique incline from within outwards, that is, their internal free border is elevated at a higher angle than their external or attached border, thus giving to each vocal cord a slanting or shelving direction outwards and downwards. This obliquity of the cords varies in degree and extent, but can be generally distinguished; the contrast, however, is striking between the flat horizontal surface and the oblique. In the white man the ventricle of Morgagni is situated external to, but immediately above the plane of the true vocal cords; whilst in the negro a long and narrow elliptical opening is seen leading downwards and outwards into the ventricle, the whole extent of which to its very fundus is visible in most black people. The change of position in the ventricle is most striking, for it hangs sidewise on the outer side of a shelving vocal cord, not unlike the saddle-bags on the sides of a mule. The relative position of the thyro-arytenoid muscles is necessarily altered by the last-named condition. These facts the author brought forward regardless of any theory, and with no other object in view than to advance our knowledge of the anatomy of parts heretofore inaccessible to vision. He had prepared in a tabular form all his examinations of black people, with the dates, country, and other points of interest, and the facts made out were explainad by large diagrams.

In the discussion which ensued, several gentlemen took part.

INSTRUMENTS AND INVENTIONS.

The New Sphymograph of M. Marey.

By J. Hughes Bennett, M.D., F.R.S.E.

Professor Bennett showed in action a new sphymograph invented by M. Marey. It is an elegant instrument, and plays with great accuracy. It is placed on the wrist, held by a light clip, the spring acted upon resting on the artery. A slip of white paper mounted on a steel plate is placed horizontally in the line of the vessel, and is moved onwards by clock-work. The paper is brought into communication with a pen connected with the spring on the pulse, and the pulsations are marked upon the paper in wavy lines.

Discussion.

Dr. Richardson said he had used a similar instrument, but had found it not to answer in practice. The force of the pulse could not be estimated by any instrument so well as it could be by the fingers.

Dr. Bennett admitted the fact, and said that he did not think the instrument could be used in ordinary daily practice, but it would be found of service in clinical teaching and in special cases.

On the Physiological Effects of the Vacuum Apparatus.

By T. Junod, M.D., London.

Dr. Junod exibited his exhausting boot in an improved form, and read a brief notice of the physiological effects produced by its application. He related an extreme case in which the blood having been drawn into a lower limb by the boot, partial insensibility of the upper limbs followed.

PAPERS OMITTED IN LAST REPORT.

On Cell Theories.

By J. T. Dickson, Esq., London.

The author adverted to the fact that Chemists were making rapid progress in the synthesis of organic materials from inorganic matters, and that some physiologists had endeavoured to show that it was as easy to form cells out of unorganised matter as to make organic substances, but from the absence of the life element, he compared such manufactures merely to models.

The starting point of the line of argument for the formation of cells was the assumption "that every true cell must have or must have had life."

A cell, composed of a wall, with fluid and solid contents floating in a medium, and possessed of life, was necessarily subject to the physiological processes of growth and physiological death. Fully developed tissue was built up of such cells, but these cells were in decrepid old age, and therefore

their development must be shown, which the author did in a retrograde manner. The cell wall undergoes fatty degeneration and liquefaction, but leaves the nucleus. This nucleus, so to speak, exfoliates, forming a new wall, which wall is permeated by the fluids of the floating medium by osmosis, till it reaches the size of the old one. The nucleus has also to grow and maintain its size, or increase so as to enable it to divide into two or more portions, each capable of developing a cell. This is provided for as follows:—The nucleus, being a molecular mass, is permeable by the fluids composing the cell contents, in the same way that a sponge may be saturated with water. The liquid cell contents hold living molecules in a state fit for assimilation, and present them to all parts of the nucleus, by which they are taken up. This process is carried on with variable rapidity. The new cell wall is often partly developed before the old one is liquified, giving rise to the appearance of cell within cell—termed nucleolus. Nuclei have yet to be shown as capable of being formed into a homogeneous mass of living matter: such a living mass is composed of living molecules; these aggregate together by reason of motions which take place in the mass by virtue of life, favoured by heat and other external causes.

The author next discussed Epigenesis and Evolution, showing both partially true and both in many degrees false, and endeavoured to show, from observations on snails' ova, how the embryonic animal is formed; first, from the formation of a single nucleus, then a cell: a second nucleus would be added, the first during this time undergoing segmentation, and division would restrain the too wide extension of the second, and these in turn would influence the form of extension and arrangement of the third, and so on, till the complete embryogenic form is built up. These cells continue to develope the creature into a perfect embryo, subsisting themselves on the molecular medium in which they are, till the animal is capable of maintaining its independent existence, forming its own molecular fluid by digesting materials derived from external sources; but the fluid formed by digestion being of low vitality, is only able to provide materials for the sustenance and not for the formation of tissue cells capable of building up the embryo. The only material capable of this metamorphosis is that in which the molecules are rendered capable of mutual attraction by impregnation. Impregnation could readily be understood upon the following solution; matter could only be comprehended as isolated in the form of double atoms, as, for example, $\left.\begin{matrix}H\\H\end{matrix}\right\}$ or hydride of hydrogen; or $\left.\begin{matrix}+o\\-o\end{matrix}\right\}$ $\overline{}$ o a double atom of oxygen. On this view an unimpregnated ovule or germ vesicle might be conceived as being composed of molecules, or double atoms of a negative or — character, and might be represented as AA or — molecules; while the contents of the sperm vesicle might be conceived as being composed of molecules of a positive or + character, and might be represented as BB, or + molecules. Upon the contact of the sperminal and germinal vesicles, the contents of the sperminal pass by osmosis into the germinal, the atoms rearrange themselves, and the positive and negative molecules give rise to fertile molecules—

AA, BB, becoming Æ, Æ.

These fertile living molecules are then in a state capable of aggregation into nuclei, from which a perfect type can be laid down, which future development can build up into a perfect form. The vexed question of life the author left untouched. Life was still unexplained, and known only in effect, it being sufficient for the purpose to see that each individual molecule possessed it.

The author apologised for the crude view he had put forward, expressing a hope that it might be received with forbearance, and further hoped that he might be enabled to build up a structure from the molecules. He thought his view applied throughout both the animal and vegetable kingdoms, and trusted that he might be enabled to lay it again before the British Association at some future meeting.

On the Vocal Organ of the Corixa, an Aquatic Insect.

By R. Garner, Esq.

This little aquatic insect, when confined in a vessel of water, is rather remarkable in producing a continuous sound, distinct from any produced by striking the sides of the vessel. It is rather difficult to say how it is accomplished; but the legs are elevated simultaneously with the noise, and friction might be produced upon the edge of the elytra, or by means of a projection or process at the base of the first pair of legs; but there is also a little sac, which is probably accessory to the sound, situated at the base of the under wings on each side, containing a little club-like body of a shape similar to the poisers of a fly or tipula. The mechanism seems still *sub judice*. The animal breathes by carrying a reservoir of air like the water-spider.

The Hour of Death in Acute and Chronic Disease.

By Alfred Haviland, Esq., Bridgewater.

The author had collected over 5000 cases of death, with the hour of death, and other circumstances recorded, which he had tabulated and exhibited on a large chart, the difficult collections being distinguished by coloured diagrams. By this chart he showed that in 1000 cases of death in children under five years of age, that the periods of the greatest mortality took place during the hours between one and eight a.m. That an extraordinary depression took place in the succeeding hours. Between nine and twelve p.m. the rate of mortality was at its minimum. He then compared these statistics with 2891 deaths from all causes, and the chart showed how remarkably the wave lines of death compared with those above. He then compared these diagrams with deaths from consumption, which, although they showed a general resemblance to the wave line, yet between the hours of four to eight a.m. there was a depression, when compared with the first four hours' period. He showed that small numbers are not sufficient for a statistical truth, and he therefore urged upon his provincial brethren to assist him in his investigations by forwarding to him data for further investigation of this interesting subject. He contended that the tables on the chart proved the extraordinary mortality in the early hours of the morning when the powers of life were at their lowest ebb, and, strange to say, when the patient was most cared for. He urged the necessity of feeding and supporting the patients at their weakest hour, so as to tide them over a critical period, and, even if death be inevitable, to so support the patients that he might at least have a few hours more of life snatched from eternity to admit of his being able to carry out some neglected duty, pardon some enemy, or see some beloved friend. He finally urged upon his Professional brethren the great importance of teaching friends and nurses how to attend to those under their charge. He concluded by saying that the subject itself required no apology for its introduction to the Association, however much the mode of his treating it might do so. He felt convinced that it was one which had occupied the attention of many of his hearers when they had been watching hour by hour the fitful changes of disease in the persons of those dear to them, or of those to whom as nurses they had desired conscientiously to do their duty. To simplify this duty and to calm solicitude at a time when either an excess of the one or an ignorant neglect of the other might be fatal, was one of the main objects of this investigation; and he felt convinced, however imperfectly he might have expressed his opinions on the subject, that it is of deep interest not only to his Profession, but to the community at large.

On the Action of the Nervous Tissue Concerned in Perception.

By W. E. C. Nourse, Esq., Brighton.

Mr. Nourse dwelt on the chemical, physical, and vital forces in relation to their influence on those portions of the nervous surface that receive impressions or perceptions. He also touched on the blood as affecting these surfaces in various conditions. He looked upon the phenomenon of perception by the nervous tissue as inexplicable.

Death from Swallowing a Nail. — An inquest was held at Enfield on Saturday last on the body of the well-known picture dealer, Mr. Henry Leggatt, of Cornhill. The deceased was on a journey to Manchester, when he stopped at Rugby to have a basin of soup. He was obliged to swallow it very hastily, and suffered considerable pain until the following day, when he passed a nail, or brad, about three-quarters of an inch long, supposed to have been in the soup. It had torn the mucous membrane of the bowels, and inflammation followed, from which Mr. Leggatt died after lingering in great agony nearly a fortnight. The jury returned a verdict of "Accidental Death." It was stated that the deceased had just effected an insurance against accidents of all kinds with the Railway Passengers' Assurance Company, of which his family will reap the benefit under the above circumstances.

FOREIGN CORRESPONDENCE.

GERMANY.

Berlin, September 1.

However divided the opinions of Medical men may be as regards the relative advantages of large general and small special Hospitals for promoting the advancement of Medical science and the education of students, yet most Surgeons, especially those who have served in campaigns, will agree that in a sanitary point of view, large Hospitals are evils—it may be necessary, but no doubt real, evils. The experience in all modern campaigns has shown that if wounded men were left behind in the most wretched cottages, sometimes in the vilest dirt, without Surgical attendance or even proper nursing, the recoveries were far more frequent than in the best-regulated and best-attended Hospitals, where large numbers of wounded men were allowed to congregate. The endeavours to improve the sanitary conditions of such Hospitals, even if much trouble on the part of the Medical officers, and much money on the part of the Government, were expended for this purpose, have almost always failed, and experience has shown that it is better to do without Hospitals at all, and resort to tents in order to attain satisfactory results in military Surgery. As far back as 1812, during the Peninsular war, Mr. Hennen found the tent-treatment of the wounded by far the best in the English army. For several years the same treatment has been resorted to on an extensive scale in the Prussian military Hospitals; and during the late Schleswig-Holstein campaign this plan has again been found to answer admirably.

It is, however, not only in military Surgery that the tent-treatment proves successful, where the Hospital treatment would most probably be fatal; but just as well in times of peace, in patients who have never borne the brunt of battle. The first of our Surgeons who drew attention to this plan was our venerable Professor Jüngken, who, after more than fifty years of active service, still continues in undiminished vigour of mind and body. He often caused patients who had received severe injuries, and who came under his care in the Charité Hospital, to be borne into the garden of the institution, if there were signs of pyæmia or nosocomial gangrene coming on, and generally with excellent results. But carrying the patients in and out proved exceedingly troublesome to the attendants, as well as to the patients themselves. At the same time, the tents which had hitherto been used, although tolerably well adapted to the exigencies of the cases, did not appear to be quite the right thing for the clinique of a large University, where everything of this kind should as nearly as possible approach perfection. Thus, the coverings were not waterproof, and although the occasional penetration of rain through the tents did not exert an appreciable influence on the condition of the patients, yet it was no doubt a thing to be avoided. Moreover, the tents were too small and low for proper attendance on the patient, and more especially for clinical demonstrations. The floor of of the tents was generally made of dry earth or sand, which was first well stamped down, and afterwards became very firm by the mere use of the tent. Such floors, however, unavoidably became in time impregnated with blood, pus, urine, and fæcal matters, from which such emanations arose as to make, in bad cases, the use of the tent altogether exceedingly questionable.

It therefore became the duty of the administration to see whether a large tent might not be constructed which would be devoid of all the inconveniences of the small ones formerly used, and which would give an asylum to a number of severe Surgical cases during the mild season of the year. This has now been done, and, as far as we can judge for the present, with great success. Besides the difficulties mentioned above, there were some others to be overcome—viz., to furnish proper drains and lighting, and to establish prompt and easy communication between the tent and the operating theatre. For this purpose two of the large windows of the wards which are used in summer, were changed into doors, and two bridges built, twenty-four feet long and fourteen feet wide, one of which was to give easy access to the first and the other to the second ward of the tent. These bridges also communicate directly with the gardens, by means of broad wooden steps. On these bridges are placed benches and chairs for those patients who already able to leave their beds; and in order that weak patients may be quite safe, high and nicely-constructed railings have been made to surround the bridges. The height of the tent is the same as that of the ground-floor of the Hospital wards. A special fundament was, for this reason, considered necessary, resting on beams and so arranged that free access of air is everywhere possible through gaps regularly contrived in the boards. The floor consists of boards, eighteen feet long and three feet wide, and so fixed with ledges that they may, in winter, be easily removed. The boards are covered with a peculiar kind of varnish, which altogether prevents the penetration of water or offensive matters, and allows of the most complete cleanliness. The ceiling is made of a sort of india-rubber linen, which is waterproof, and protects the patients from the rays of the sun. The whole roof consists of one piece, which weighs about nine or ten hundredweight, and which may be easily removed. The two bridges of communication are covered by the same material. The sides of the tent are covered with curtains of ticking, which are opened with ease, and may be so well closed that rain cannot penetrate. The open side is furnished with blinds, which may be drawn up in bad weather, so as to prevent the entrance of rain and wind. The roof is furnished with water-channels and pipes, to allow the rain-water to escape. The whole tent is surrounded by a gallery, which is also quite covered by the roof; this gallery is three feet wide, and furnished with a good railing. It serves as a sort of promenade to the patients in bad weather; and if the day is fine, weakly patients who may be out of bed just for half an hour or so are placed upon it, and are thus enabled to enjoy the luxuriance of the trees and foliage. The inner space of the tent is, apart from the gallery, twenty-three feet wide; so that there is a space eight feet wide left between the two rows of beds. The entire length of the tent is 114 feet. It is separated in two wards, each of which contains twenty-one beds. There is ample room for washing-stands, medicines, tables, and chairs. Between the two partition-walls there is a space eight feet long, where there are two water-closets, with drains and pipes; besides there is a passage communicating between the two wards; but this communication may be stopped, if required, by means of doors. The tent is lighted by gas-burners, which are fed from the Hospital pipes, and are furnished with proper contrivances against the danger of fire. The tent stands in the large garden which separates the old building from the new Charité. Patients who would otherwise be obliged to spend the summer in dingy rooms are now in the open air, in a pretty pleasure garden, and no wonder that their minds cheer up under such genial influences, and they become more hopeful of a favourable result. Dr. Fischer, the able Staff-Surgeon, who is in charge of the tent-patients, promises to give us the results of the tent-treatment in various forms of disease as soon as the system shall have been worked for some time.

Professor Weber, of Bonn, has lately made a series of instructive experiments in order to settle the question of the existence or not of the so-called trophic nerves and their influence on inflammation. Although it cannot be denied that the sentient, motor, and especially the vaso-motor nerves play a great part in the nutrition of the different tissues, and that disturbances of innervation are followed by atrophy of the parts, yet no satisfactory proof has been adduced that the nerves are able to directly cause inflammation. There are two principal facts which have generally been adduced for proving that inflammation may thus arise,—1st, the disturbances of nutrition observed in the eye after the section of the fifth pair, and 2ndly the inflammation of the lungs after the section of the pneumo-gastric nerves. But as regards the first of these facts, Donders and Snellen have shown that it is merely due to the loss of sensation which exposes the eye more to external noxious influences, there being no protecting reflex movements, so that the inflammation is merely caused by foreign bodies acting without hindrance on the globe; and concerning the second point, Professor Traube has shown that the inflammation is in the same manner caused by foreign bodies, the entrance of which through the glottis into the trachea and bronchial tubes is no longer impeded, in consequence of the anæsthesia of the vocal cords. The theory, therefore, that inflammation could be directly caused by paralysis of certain nerves, had to be given up, and there was only the undisputed fact that by such paralysis the parts were deprived of their natural protectors, and thus rendered unfit to resist noxious influences. In an essay published some time ago, Dr. Samuel, of Königsberg, has asserted a different theory, viz., that not paralysis, but considerable irritation of nerves, would produce inflammation. This assertion, supported as it

was by a number of experiments, attracted a good deal of attention, both at home and abroad, and it seemed, therefore, very desirable that some other physiologist might go over the same ground, and either vindicate or disprove Dr. Samuel's conclusions. Dr. Tobias, a pupil of Virchow's, at first showed that the method which had been employed by Samuel was a faulty one. One drawback to it appeared to be that croton-oil had been used for irritating the nerves of rabbits; and this substance was now shown to lead to those extensive suppurative changes which had been observed by Samuel, even if the nerves themselves were not at all touched by it. By this, however, only part of the problem had been solved, and Professor Weber, therefore, repeated the whole of Samuel's experiments, but without in any case observing the appearances described by that gentleman. Moreover, his mode of experimentation proved to be too injurious to the animals. If nerves (Professor Weber argues) are for ten minutes acted upon by a powerful electric current, and no arrangements are made for insulating the current and preventing its radiation to the neighbouring tissues, the experiment loses its value; nor can we be astonished that there should be more or less diffuse inflammation if nerves are tied to pieces of bone and afterwards touched with croton oil. But such inflammation is neither confined to the ramifications of the nerves thus treated, nor is it so constant that any sound deductions could be made from its occurrence. Professor Weber, therefore, thought it advisable to employ a safer and more exact method for examining this question. To excite the nerves for a somewhat longer space of time, he used partly threads loosely placed round them, or metal rings or fine needles, and partly the continuous galvanic current, the nerves being enveloped with a fine conducting wire of copper and platinum. The results of such excitation of the nerves were—contraction of the blood-vessels, decrease of temperature, lasting for a longer or shorter time, and occasionally venous hyperæmia, but never any symptoms of inflammation. It seemed strange that Dr. Samuel had not at all experimented upon the sympathetic nerve, although Claude Bernard had more than ten years ago shown it to possess a peculiar influence upon the blood-vessels—investigations which were afterwards prosecuted with zeal and ability, more especially by Professor Ludwig, of Vienna. Professor Weber has also experimented on this question, and confirmed, amongst others, the results arrived at by Donders and Snellen, who had found that, after the section of the sympathetic and consequent dilation of blood-vessels, the inflammation excited in the ears of rabbits was more intense, and had a much more rapid course. He observed that if rabbits' ears were injured, or setons drawn through them, the wounds healed much more quickly after the section of the sympathetic fibres than if the nerves were still acting. Long-continued excitation of the nerves had no influence on the inflammatory action. He also remarked that, after the section of the cervical sympathetic, the dilated vessels might be caused to contract again by cold or electricity, or to be further expanded by heat. This can only be explained by assuming either an independent irritability of the muscular fibres of the blood-vessels, or the existence of an independent ganglionic system. The assertion of Schiff that there was a special set of nerves having the function of expanding the blood-vessels is contradicted by Weber. It would, therefore, appear that the influence of nerves upon inflammation is nothing else but the influence exercised by them upon the blood-vessels, and that inflammation cannot directly be caused either by paralysis or by irritation of nerves. Indirectly, however, these latter have a considerable influence upon the nutrition of the parts, and the course of inflammation in the tissues, as upon them depend the amount of blood contained in the vessels, since by irritation of the vasomotor nerves, anæmia and defective nutrition, and by paralysis of the same, hyperæmia, a more rapid metamorphosis of matter, greater inflammatory action, and a more rapid course of the inflammation, are caused.

Undiscovered Properties of Mineral Waters.—"It is impossible not to suspect that the wonderful efficacy of some mineral springs, both cold and thermal, in curing diseases, which no artificially-prepared waters have as yet been able to rival, may be connected with the presence of one or more of these elementary bodies previously unknown, and some of the newly-found ingredients, when procured in large quantities, may furnish Medical science with means of combating diseases which have hitherto baffled all human skill."—*Sir Charles Lyell's British Association Address*, Bath.

GENERAL CORRESPONDENCE.

SURGEON-GENERAL HAMMOND.

[To the Editor of the Medical Times and Gazette.]

Sir,—Your readers will have noticed with regret the stigma that has been laid on our Profession by the conviction of Surgeon-General Hammond, of the United States' Army, on charges of peculation and dishonesty. I am able to testify, however, from personal knowledge, that the decision of the court-martial was as little expected by Dr. Hammond as it was by ourselves.

It will be well, in order to avoid possible injustice, to reserve our verdict until we learn something more of the persons who constituted the court and the nature of the evidence. It should be remembered that the selection of these eight general officers rested with the Secretary of War, Mr. Edwin M. Stanton, Dr. Hammond's personal enemy; and out of the hundreds of impromptu generals in the Federal service who owe their commissions less to their own merits than to the favour of the present administration, it is not impossible that eight might be selected who would show small favour to any one whom the Secretary desired to crush.

The case of Major-General Fitzjohn Porter, of the Federal service, may be quoted as bearing a striking resemblance to the present one. This officer, who happened to be also a soldier and a gentleman,—*noscitur a sociis*,—was an intimate friend of General McClellan, and, therefore, by implication an enemy of the present administration. Accordingly, he was tried by court-martial while I was in Washington, in 1863, McClellan's fortunes being then apparently at the lowest ebb, on charges imputing the basest treachery while he held an important command in the Army of the Potomac. He was convicted and dismissed the service with all possible ignominy The answer, however, which General McClellan gave to this act of tyranny was to associate in public with the dismissed general on every convenient occasion; thus testifying, at the risk of his own popularity, his belief in his friend's innocence, and, consequently, in the—to say the least—fallibility of American courts-martial.

The Judge-Advocate-General has issued since the trial, we are told, a commentary on the case of Dr. Hammond, in which he makes as strong a case as possible for the prosecution, and attempts to convince everybody of the justice of the sentence. The very same manœuvre was resorted to after General Porter's trial. What should we think if the Attorney-General did such a thing after obtaining a verdict for the Government? I know not whether the Judge-Advocate-General who assisted Dr. Hammond out of the service was the same who performed a similar kind office for General Porter. At all events, being appointed by the same persons, he is no doubt tarred with the same stick.

The inference that I wish to draw from all this is, of course, that Dr. Hammond's side of the question has yet to be heard, and it is possible that he may find a fairer trial at the hands of the public than that which his Government have accorded him.

I am, &c.

New University Club, St. James's-street. Viator.

Conviction for receiving a Lunatic Patient without Licence.—Mr. H. Wilkins, a Medical Practitioner residing at Ealing, who was prosecuted at the Central Criminal Court on the 22nd ult., for "contravening a provision in the Act, 8 and 9 Vict., cap. 100, for the regulation of the care and treatment of lunatics," was found guilty, and was bound over on his own recognisance to appear at the next Sessions to receive the judgment of the Court. No charge was made against Mr. Wilkins' moral character, but he had undoubtedly sinned against the Act, which enacts that no person (unless he were a person who derived no profit from the charge, or a committee appointed by the Lord Chancellor) should receive to board or lodge in any house other than a hospital registered or an asylum licensed, or take the care or charge of any one patient as a lunatic without a certain order and certain Medical certificate; and the Act applies to "every person being idiotic, or lunatic, or of unsound mind." Mr. Wilkins received £180 a-year for taking care of his patient, and he had not complied with the requirements of the Act. It is important that Medical men should remember this Act when asked to take charge of "nervous" or imbecile patients.

LEGAL INTELLIGENCE.

MARYLEBONE.—THE MEDICAL ACT.—EXTRAORDINARY SCENE.

The following is the information for a summons laid by Mr. Talley, a solicitor, of Beaconsfield :—

"To Dr. Henry Scott, alias Henry Hamilton, at 15, Henrietta-street, Cavendish-square, previously of 17, Adam-street, Strand, and previously of Leicester-square, in the county of Middlesex, labourer, etc.—Whereas, etc.; for that you did unlawfully, wickedly, and designedly publish in a certain newspaper, dated September 23, of the present year, a certain advertisement in the following words, that is to say, —'To ladies only.—Consult Dr. Scott, personally or by letter, in midwifery, pregnancy, obstructions, disappointments in marriage, and cases peculiar. Had has thirty-one years' London practice. Ladies' Medical Confidant, post free for fourteen stamps.—15, Henrietta-street, Cavendish-square.'—Thereby holding yourself out and unlawfully, wilfully, and falsely assuming the rank and pretending to be a Physician and general Practitioner, implying that you were registered under the Medical Act of 1858, and that you were recognised by law as a duly qualified Practitioner and Doctor of Medicine."

This notice having been read over,

Mr. Sleigh, who appeared for the defence, said his client was not guilty of the offence imputed to him.

Mr. Talley seems to have had an altercation with Mr. Sleigh, but to have failed in his evidence or his law, or both; and after a long discussion, in the course of which no witnesses were produced,

Mr. Mansfield: We had better go on, and see if there is any law by which this can be made an offence.

Mr. Sleigh: That will be the proper course to adopt, and I humbly submit that on the point of law there is no case made out for me to answer. The statute was never passed to meet any such case as this. The learned counsel addressed the Court, and was quoting cases on behalf of his client, but could not get clearly on through the interruption of Mr. Talley.

Mr. Mansfield: There is no necessity for you to go on any further, Mr. Sleigh. The summons must be dismissed. There is no evidence whatever to show that he practises under the title of a Physician or Doctor of Medicine. Mr. Tilley will have to pay costs.

PROCEEDINGS AGAINST MR. BEARNARD, MR. ROGERS, AND DR. KAHN.

At the Marlborough-street Police Court, on Wednesday, Mr. Maurice Cohen Rogers, Dentist, of No. 18, New Burlington-street, appeared before Mr. Tyrwhitt to answer a summons taken out by Mr. Talley, for—"That you did wilfully and falsely take and use the name of Surgeon, implying thereby that you are registered under the Medical Act."

Mr. Lewis, jun., of Ely-place, appeared on the part of Mr. Rogers.

Prior to the case of Mr. Rogers being gone into, Mr. Tyrwhitt requested to know whether Mr. Bearnard, Surgeon-chiropodist, of Regent-street, was in attendance.

Mr. Lewis, jun., who represented Mr. Bearnard last week, in the proceedings then instituted against Mr. Bearnard for using the word "Surgeon," said Mr. Bearnard was present.

Mr. Tyrwhitt, addressing Mr. Bearnard, said: I gave my opinion in your case this day week, and I then thought you were liable to a penalty, and granted a case. Since then I have found a case reported in the "Law Reports" which may or may not materially bear on your case; but I think there is so much doubt in the case—though I have not much doubt about it myself—that I shall not enforce the penalty till I am compelled to do so by *mandamus*. My own opinion is against you, but, as I said before, I shall not enforce the penalty till I am compelled to do so.

Mr. Lewis, jun.: I have looked into the law since I was here last week, and I find it is in a very unsatisfactory state. In the case you have referred to, which was heard in the Common Pleas, and appears in the Reports, there appeared to be a want of evidence, as there was also in Mr. Bearnard's case.

Mr. Tyrwhitt: I do not advise Mr. Bearnard even to alter his plate at present, but recommend Mr. Talley to take some advice and to consult the Council of Medical Education, and if he chooses on some future occasion to take proceedings against Mr. Bearnard I will then grant a case.

Mr. Lewis, jun.: I believe Mr. Talley will admit that Mr. Bearnard has not in any way practised as a "Surgeon," and I think if Mr. Talley is well advised he will take no further proceedings in the matter. I see Mr. Bowen May in court, and I think if that gentleman, who formerly represented the Medical Council, will give Mr. Talley good advice there will be an end of the matter.

Mr. Talley (with much warmth): I do not want any one to suggest to me what I should do, or to offer me advice.

Mr. Bowen May: As *amicus curiæ*, perhaps I may be allowed to say that I formerly acted for the Medical Council, and the same difficulty in the matter was then felt, the Council not being able to prove that the persons calling themselves "Doctors" acted as Doctors.

The case of Mr. Rogers was then called on.

Mr. Talley: In this case, your worship, I have given notice to the parties concerned that the summons was withdrawn.

Mr. Lewis, jun.: On behalf of Mr. Rogers I wish to state that he has been charged with "falsely pretending to be a Surgeon." It is of the utmost possible importance to him, as it has gone forth in the neighbourhood that he has been summoned, that he should have an opportunity of stating that he has an English and a foreign diploma as a Surgeon; and I also hold in my hand, besides these diplomas, certificates showing that Mr. Rogers has passed the Hospitals in Paris as a dentist. Mr. Talley says that Mr. Rogers is charged by the Medical Council with "falsely pretending to be a Surgeon," but the Medical Council ignore the proceedings, stating that they are not taken by their advice, nor at their expense, and it is but fair that Mr. Rogers should be put to no expense in being compelled to attend the court as he has been. I may here state that the reason why Mr. Rogers is not on the "Register" is because he only practises as a dentist, and not as a Surgeon. Mr. Rogers is a member of the Royal College of Surgeons, and it is a most intolerable proceeding that he should be brought to this court as he has been; and I must therefore ask for costs.

Mr. Tyrwhitt: It is perfectly clear Mr. Talley should have ascertained whether Mr. Rogers was a Surgeon, and had a diploma or not, before he instituted proceedings. It is impossible, after seeing Mr. Rogers' diploma, to deny that he is a Surgeon, and therefore I shall order costs. To summons Mr. Rogers is really too bad.

Mr. Lewis, jun.: Mr. Rogers has expended nearly a thousand pounds in qualifying himself.

Mr. Talley: I will pay the costs.

Mr. Talley then handed over three guineas as costs.

Dr. Kahn, of No. 3, Tichborne-street, was next called upon to answer a summons "for that you did wilfully and falsely take and use the name and title of Physician, implying that you are registered under the Medical Act."

Mr. Edward Lewis, of Great Marlborough-street, appeared on the part of Dr. Kahn, and said:—This summons has never been served on Dr. Kahn, as that gentleman has been absent from England for some time. I have to complain of the proceedings adopted by Mr. Talley in applying for summonses against Professional gentlemen without the slightest grounds for doing so. Mr. Talley did not, as he pretended, represent the Medical Council, and had made himself the so-called champion of the Medical Profession from other motives. If Mr. Talley is only acting as a solicitor in these cases, I should be glad to know who is his client, in order that those vexatiously brought into a court of justice under a stringent penal act may know with whom they have their remedy. My client is duly qualified under Section A of the Medical Act, and had he been in this country would have been fully prepared to answer the summons.

Mr. Talley, who had frequently interrupted Mr. Lewis, exclaimed: I represent the women of England.

Mr. Lewis: I think that estimable body have a very ungracious representative.

One of the officers of the court having stated that the summons was not served on Dr. Kahn, the matter ended.

Westminster School.—In consequence of the prevailing epidemic at Westminster (scarlet fever), which has proved so fatal in the neighbourhood of Dean's-yard, Smith-square, and Barton-street, we hear that the re-assembling of Westminster School is postponed to Monday, October 3.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, September 22, 1864 :—

Thomas Wilson Corbin, Haringey-park, Hornsey, N.; Josiah Wright Matthews, Holgate-crescent, York; James Bunter Colthurst, Carey-street, W.C.; William Frederick Butt, 2, Mecklenburgh-street, W.C.

The following Gentleman also on the same day passed his First Examination :—

Rees Llewellyn, London Hospital.

PRELIMINARY EXAMINATION IN ARTS.—The following Gentlemen passed this Examination on the 23rd and 24th September, 1864, and received certificates of proficiency in General Education :—

George Amsden, London; Isaac Hann, Yeovil, Somerset; William F. Hazel, London; Alfred Hollis, London; special certificates. George Amsden, R. H. Barker, John Bately, Reginald Bayley, J. R. Bevan, Wm. Beard, George Biggs. J. R. Blackmore, William Bower, R. N. Broughton, C. K. Bryant, G. W. Burn, John Carr, H. W. Collins, A. E. Currie, H. D. Crighton, Thomas Davies, Edgar Dukes, Wm. Aubrey Essery, T. Walker Evans, T. B. Fairclough, Frederick J. Fiske, C. H. Furnivall, Jonathan Garner, H. C. Gill, James Green, J. R. Grover, A. H. Hackney, Isaac Hann, Wm. F. Hazel, J. R. Haynes, J. Devere Hill, Alfred Hollis, H. Hutchings, W. G. Irving, John Robert Jenkins, Thomas D. Jones, W. H. Latham, T. L. Lloyd, Walter Maine, J. D. Mason, J. F. Matthews, F. Miller, Charles Moon, L. J. Moseley, J. M. Phillips, Arthur Roberts, A. Copplestone Roberts, S. Skinner, Thomas Smith, W. W. G. Stables, W. H. Stavely, Edward Stephens, William Thurston, Frederick Wallace, F. Michael Wallis, E. S. Warburton, Inman Welsh, W. K. Wesley, Albert Williams, Henry Wintle, Francis Wright, John Young.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

GORMALL, J. H., M.R.C.S. Eng., has been appointed Junior House-Surgeon to the Dispensary, Preston.

GRUBB, RICHARD THEODORE, M.R.C.S. Eng., has been appointed House-Surgeon to the London Hospital.

HOLDEN, JOHN, M.R.C.S. Eng., has been appointed Senior House-Surgeon to the Dispensary, Preston.

LEEDS, THOMAS, M.R.C.S. Eng., has been appointed Physicians' Assistant to the Manchester Royal Infirmary and Dispensary.

MAITLAND, WILLIAM, M.R.C.S. Eng., has been appointed one of the Surgeons to the Blackburn Infirmary.

PEARSE, REGINALD T., L.R.C.P. Edin., has been appointed Medical officer to the Workhouse and Industrial Schools of the Cardiff Union.

ROBINSON, JOHN, M.B. St. And., has been appointed Medical officer to the Runcorn Union Workhouse, Cheshire.

SMITH, THOMAS S., M.B. Lond., has been appointed Senior House-Surgeon to the Manchester Royal Infirmary and Dispensary.

WALKER, G. E., M.R.C.S. Eng., has been appointed Junior House-Surgeon to the Manchester Royal Infirmary and Dispensary.

WATSON, A. M., M.D., has been appointed House-Surgeon to the Peterborough Dispensary and Infirmary.

WATTS, W. H., M.R.C.S. Eng., has been appointed a Resident House-Surgeon to the General Lying-in Hospital, York-road, Lambeth.

WRIGHT, M., M.R.C.S., Eng., has been elected Medical officer and Public Vaccinator for the St. Peter's District, No. 2, St. Mary's, New-ngton, Surrey.

DEATHS.

FUSSELL, ERNEST, M.R.C.S. Eng., at Sherborne, Dorset, on September 16.

HAMLIN, JAMES, M.D. Aberd., at Tighnabruiack, by Greenock, N.B., recently.

STANISTREET, T. D., Surgeon, late of Calcutta, at Mornington-road, Bow, on September 19, aged 49.

THOMAS, SAMUEL JOHN, Surgeon, at 3, Archbutt-terrace, Manor-street, Chelsea, recently.

PRIZES.—The Council of the College of Surgeons offer three Jacksonian prizes of twenty guineas each for competition during the present year, besides their Collegial prize of fifty guineas, and two Jacksonian prizes in the ensuing year.

HEALTH OF THE BRITISH AND FRENCH ARMIES.—From an official return just published it appears that the cases of sickness in the French army have been two and a-half times as numerous as in the British, but that the number constantly non-effective from sickness and the sick time to each soldier have been nearly identical in the two services.

THE British Government has given £500 to the sister of the late Dr. Edward Vogel, who lost his life in Central Africa whilst travelling for the Foreign Office, giving his services gratuitously.

NATURAL AND EXPERIMENTAL SCIENCE IN PUBLIC SCHOOLS.—The Rev. T. N. Hutchinson, M.A., F.C.S., Second Master of King Edward's School, Birmingham, has been appointed by Dr. Temple to take charge of the scientific department of the Rugby School, in order to carry out the suggestions of the Royal Commissioners with regard to the more systematic teaching of natural and experimental science in public schools.

EXTRAORDINARY MUNIFICENCE.—The inhabitants of Barnsley have just had presented to them a handsome building and £5000 for its maintenance as a Dispensary, by Mr. Staniforth Beckett, of the Knoll, Torquay, Devon. The donor of this magnificent gift is a member of a family who in the early part of the present century resided in Barnsley, and carried on an extensive business as a linen manufacturer and a banker. The late Mr. Alderson has also bequeathed £100 to aid in the good work commenced by Mr. Beckett.

ROYAL COLLEGE OF SURGEONS.—The Students now arriving in this metropolis are reminded that the registration commences this day (Saturday) and will be kept open fifteen days. The library and museum will re-open, the former this day and the latter on Monday. The statue of John Hunter is now placed in the museum. The preliminary examination for the Fellowship will commence on the 17th of the present month (October), and the Professional examination on the 22nd proximo. The primary examination in Anatomy and Physiology will commence on the 5th proximo, and the Pass or Surgical on the 12th.

EXTRAORDINARY ADVERTISEMENT. — The following appeared in a Paris newspaper :—"A student of three years' standing at a German University wishes to marry after taking his degree. He is desirous of finding a young lady who will advance him money to pay the sum necessary to finish his university career. Thus bound to his fate, she would, after two or three years, become his wife."

THE MEDICAL OFFICER OF HEALTH FOR MARYLEBONE.—At the first meeting after the holidays of the Marylebone Representative Council, Mr. Churchwarden Baddeley in the chair, Dr. Bachhoffner moved a resolution, expressing the regret of the Board at the death of Dr. Dundas Thomson, which, being seconded by Professor Marks, was carried unanimously. Mr. Tavener then moved a resolution with reference to the appointment of a successor to Dr. Thomson. After expressing his strong disapprobation of the course which had been adopted by vestrymen, in signing a document pledging themselves to vote for a particular candidate, said he hoped that, nevertheless, they would act like men of business, and not prejudge the question. He moved the appointment of a committee to consider and define the duties of Medical officers, and agree upon an annual stipend for such office, and to report thereon that day fortnight. Mr. Herring seconded the motion. An amendment was moved that the Board proceed to the reception of names of candidates for whom advertisements should be issued, and afterwards to the formal election. This being protested against as a sham, a warm discussion followed, when the original resolution was carried by a large majority. Mr. Tavener then moved the appointment of a committee of thirteen members, but it was opposed, and an amendment for a committee of the whole Board, on the motion of Dr. Bachhoffner, seconded by Mr. Botting, was carried. Dr. Whitmore resigned his seat as a member of the Vestry, and the proceedings of the day on this question closed. The Profession will be glad to find that at the eleventh hour the Vestry are retracing their steps, and that there is yet a chance of a fair and open election.

DEATH FROM FRIGHT.—Dr. Raub, of the U.S. Army, City Point, Virginia, reports the following :—"Private Koch, ——Regt., was admitted July 10. When admitted he had diarrhœa, but very slight. The most remarkable feature in his case was a tremor of his whole body. His chin and lips trembled so that he was unable to give an answer to any question asked him. He continued growing worse in spite of all we could do for him. He would jump up from his bed exclaiming that he did not wish to fight, that he could shoot no one, and that he desired to go home. As the nurses were dressing the wounds of another man just opposite, on the morning of the 12th, he jumped up and started to get out of the ward. One of the nurses caught him and laid him back on his bed, and ten minutes after he was a corpse. A few days after I saw the orderly sergeant of the battery to which he belonged, who gave me the following history :—The battle

of Petersburg was Koch's first. As soon as the first gun was fired he became uncontrollable, and begged and prayed to be allowed to go to the rear. The captain threatened to tie him to the cannon if he did not go to his post. This only tended to make him worse. They feared he was becoming insane, and sent him to the Division Hospital, whence he was sent here. He had this tremor from the time that he first arrived at the Division Hospital till he was sent to this place. Was not this a case of death from fright?"

NEW MINERAL SPRING AT WHEAL CLIFFORD, NEAR REDRUTH, CORNWALL.—This spring yields 250 gallons per minute; has a temperature of 122° F. at a depth of 1350 feet, and proceeds from a fissure six to twelve feet wide of elvan and porphyritic granite, and of killas or clay-slate. The gases emitted are carbonic acid, oxygen, and nitrogen. Professor Miller says that solid matter is so great as to exceed by more than four times the proportion of that yielded by the Bath waters. Its composition, too, differs: it contains little sulphate of lime, and is almost free from magnesia. It is, however, rich in chlorides of calcium and sodium, and contains one of the new metals, cæsium,(a) which has been for the first time detected in our mineral waters. Lithium is, however, its characteristic feature, which constitutes the twenty-sixth part of the solid contents.—*Sir Charles Lyell's British Association Address*, Bath, September, 1864.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. Parker is thanked for his communication.

J. H. S.—Apply with confidence to the best Medical Practitioner in the town whence you write. The case is well understood.

Medicus.—Carpenter's Human Physiology, the sixth edition, 26s., of which is just announced as ready. Dalton's Physiology may be had in London; the price is 21s.

Dr. E. C.—The Honorary Gold Medal of the Royal College of Surgeons is seldom awarded. In August, 1834, it was presented to Mr. George Bennett, then of Plymouth, but now a Professor in the University of Sydney, in consideration of his many valuable contributions in Natural History to the Hunterian Museum.

Dr. James Edmunds is thanked for his very able letter on the case of Dr. Goss. He will see that we entertain opinions on the matter akin to his own. Our space will not allow us to publish his "remarks" this week, but they shall appear in our next issue.

GRIFFIN TESTIMONIAL FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following subscriptions have been further received on behalf of the above fund:—

Dr. W. O. Markham, Clarges-street, £1 1s.; Dr. Geo. Yeoman, Whitby, 10s.; Drs. Lobb and Hogg, East London, £1 1s.; amount previously announced, £61 3s. 6d.; received at the *Lancet* Office, £3 11s.; Wm. Williams, Esq., Wareham, 7s.; Chas. Willcox, Esq., Wareham, 7s.; Ed. Mercer, Esq., Wareham, 7s.

I beg to take this opportunity of informing the Poor-law Medical Officers generally that at the last Committee meeting it was considered advisable that the above fund should be shortly closed. It is probable that the list of subscribers published weekly in the four Medical journals for the last three months may not have been seen by all, who would wish to be thus included as testifying to and appreciating Mr. Griffin's worth.

I would, therefore, crave a very prominent position in your next issue to make this forcible appeal to my Poor-law Medical colleagues on behalf of the Testimonial Fund. I respectfully solicit that all intending subscribers will at once remit to me their contributions. We may then have a well-filled purse to present to our champion at the public dinner, to which it is intended to invite him, in a few weeks' time, at the Freemasons' Tavern, and of which all subscribers will be duly notified by printed circular. I am, &c.,

ROBT. FOWLER, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, Sept. 26.

A FIELD FOR PRACTICE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you kindly allow me, through the medium of your valuable journal, to point out to the Medical Profession the village of Brinklow, in Warwickshire, with a population of 800 or more, and a populous and hilly, respectable surrounding district, with several clubs attached, and no Doctor within three miles of the place. This is felt to be a great want in common by all; and if the insertion of this would induce any Doctor to make it his home, I feel sure you will have done a great public good. Hoping you will find space for this, I am, &c.

PRO BONO PUBLICO.

Barras-green, Upper Stoke, near Coventry, September 28.

(a) Cæsium, from the bluish-grey lines in the spectrum.

INDIGO IN PURULENT DISCHARGES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I have just read with much pleasure and interest the paper of Dr. Herapath, of Bristol, on the occurrence of indigo in purulent discharges, published in your last number. In some observations on a case of indigo in the urine, published by me in the *Edin. Med. Journal* for December, 1861, I remarked—"It has been observed that a greenish or blue colouring matter is formed on the surface of pus and other albuminous substances when they have been allowed to stand for some time exposed to the air. Probably this is also a similar transmutation of indican by the action of a ferment, in the uroglaucine. But a few exact chemical observations are required fully to elucidate the subject."

This paper of Dr. Herapath has furnished the exact chemical observations wanted, and the nature of this blue pigmentary matter in pus is proved to be such as I indicated. In the case of indigo in the urine which I reported, the patient observed that after taking salt food the quantity of "blue stuff" was greater. Does chloride of sodium increase the amount of uroxanthine excreted, as Kletzinsky has shown that creosote and oil of bitter almonds do? I am, &c. W. GILCHRIST, M.D.

Lake House, Torquay, September 27.

REMOVAL OF THE METACARPAL BONE OF THE THUMB.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Seeing some cases of Conservative Surgery on the toe and thumb reported by Mr. Parson and Mr. Wilkes, I venture to send you an account of a case which has occurred in my practice.

A young woman, who had been for some time under treatment elsewhere, came to me with disease of the metacarpal bone of the thumb; several sinuses led down to dead bone, portions of which had come away. The disease appeared to me to be situated in the distal end of the bone. On cutting down I found the bone throughout its whole length so diseased that I removed it entirely, but with great fear as to the future utility of the thumb.

The operation has succeeded beyond my expectation: there is very little deformity, the soft parts contracting, and, with the hard cicatrix, forming a good support for the phalanx; there is considerable power in the varied motions of the thumb, which she is able to press firmly against any part of the index finger. Her occupation of sewing gloves in a machine of course requires the constant use of the thumb, which, she tells me, is nearly as useful now as before the disease appeared. The operation was done more than a year since. I am, &c.

Martock, Somerset, September 20. JOS. DIXON ADAMS, M.R.C.S.

INDIAN LLEWELLYN MEMORIAL FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I beg to inclose you a copy of a circular which has been addressed by a committee of Medical men in Calcutta to the members of the Medical Profession in India for the purpose of securing their co-operation in a scheme for the erection of a memorial to perpetuate the memory of Mr. David Herbert Llewellyn, the Surgeon who so gallantly sacrificed his life to his stern sense of duty on board the *Alabama*.

We feel little doubt that a similar movement will be made in England, and as we think that the result will be more satisfactory if all efforts having this object in view are combined, we venture to send you early intimation of our doings, and shall feel obliged if you will notice them in your editorial columns. I am, &c.

Calcutta, August 8. G. B. PARTRIDGE, Hon. Sec.

The following is an extract from the circular sent us:—

"At a meeting of the members of the Medical Profession, held in Calcutta, on Wednesday, the 3rd August, the following resolutions were unanimously carried:—

"Resolution I.—That a subscription be raised, in which all Medical men on this side of India be requested to join, for the purpose of perpetuating the memory of Mr. David Herbert Llewellyn, the young English Surgeon who lately perished on board the ship in which he served, choosing rather to resign his own life than to imperil the safety of wounded men under his care.

"Resolution II.—That a Committee be formed for the purpose of carrying out the resolution first proposed in communication with the Profession in India and England, and of taking into consideration the form of expression to be adopted.

"Resolution III.—That the following gentlemen be requested to form themselves into a Committee to fulfil the objects of this meeting:—Drs. Gordon, Chevers, Macrae, O'Callaghan, Murphy, Fayrer, Beatson, Ralph Moore, Barry, Waller, Bourne, and Partridge."

COMMUNICATIONS have been received from—

Mr. J. H. RANDALL; Mr. JOHN W. IRVINE; J. H. S.; OBSTETRICAL SOCIETY OF LONDON; Dr. GEORGE D. GIBB; Mr. DAVID P. MORRIS; Dr. W. GILCHRIST; Mrs. M. A. BAINES; A COUNTRY SURGEON; Dr. W. L. LINDSAY; Dr. ROBERT FOWLER; Mr. MORDEN WRIGHT; Dr. ROBERT LEE; SECRETARY OF CHARING-CROSS HOSPITAL; Dr. W. T. GAIRDNER; ASSISTANT-SURGEON; APOTHECARIES' HALL; Dr. H. CHARLTON BASTIAN; Mr. W. PARKER; Dr. BOYD; Dr. J. WOOD; Mr. THOMAS BOYLE; MIDDLESEX HOSPITAL; Dr. JOHN PATTERSON; UNIVERSITY COLLEGE, LONDON; Dr. LANGDON DOWN; PRO BONO PUBLICO; Mr. T. W. W. WATSON; Dr. J. C. COOKWORTHY; ST. MARY'S HOSPITAL; Mr. R. T. GRUBB.

BOOKS RECEIVED.

The Sanitary Duties of Private Individuals especially separated and distinguished from the Sanitary Duties of Government and of the Local Boards, and to be applied by Everyone to Himself in his own Business or Position in Life. Ladies' Sanitary Association Tract.

*** Mr. W. E. C. Nourse, of Brighton, the author of this useful tract, suggests to all whom it may concern that the increase of sanitary measures and removal of nuisances is a *personal* matter, and not one to be left to "Government" or "Boards." He enters into the various duties which every man, whether as master, servant, landlord, or tenant, has on his shoulders and ought to fulfil. We believe with Mr. Nourse that many a sanitary philosopher would do more good by looking after the window opening, the dust heaps, the sinks, the water cistern, the closets, and the servants' rooms in his own house than by speechifying about other people's neglect or what "Government" ought to do.

Coffee and Chicory: their Culture, Chemical Composition, Preparation for Market, and Consumption; with Simple Tests for Detecting Adulteration. By P. L. Simmonds. London: E. and F. N. Spon. 1864.

*** A fair account of the subject, derived chiefly from Dr. Hassall. The writer describes the drying and using afresh of *coffee grounds*. "The editor of the *Baltimore American* lately visited the Commissary Department of one of the large military Hospitals, and noticed several barrels of dried coffee grounds, the purpose whereof excited his curiosity. The polite commissary informed him that they received 12 dollars a barrel for the grounds," in order that they might be rearomatised by the transforming hand of modern chemistry, and put up in papers decorated with high-sounding names on attractive labels.

Edinburgh Medical Journal. September, 1864. Edinburgh: Oliver and Boyd.

*** Dr. C. Maclagan completely establishes the truth of the arsenic eating in Styria. A good lesson this for the Rationalistic sect. That peasants can swallow half-a-dozen grains of arsenic with impunity, is, of course, absurd! impossible! inconsistent with the laws of scientific medicine! incompatible with the arguments of Professor Nogo's book! But it is fact, for all that. Mr. Dix gives an account of a mode of using wire as a safe substitute for the ligature; Dr. Hewan of the Sexual Customs of Old Calabar; and Dr. Keith of twenty cases of ovariotomy—fourteen recoveries.

Canada Medical Journal. No. 1. July, 1864. Montreal: Dawson, Brothers.

*** A case of punctured wound of femoral artery; followed by what is called *aneurism;* pressure tried; no operation till twelfth day; death on tenth day from operation, by pyæmia. Dr. Campbell gives a case of aneurism treated by ligature of external iliac; death by pyæmia. This complication is evidently not unknown in Canada.

The Canada Medical Journal. No. 3. September, 1864. Montreal.

*** Contains another case of wound of femoral artery treated by *pressure!* traumatic aneurism (so-called) followed; artery tied twenty-five days after the injury; death from pyæmia in thirty-four days after operation. What a pity that the word aneurism is employed to designate that collection of blood which forms when an artery is wounded and the blood does not escape externally. Dr. Sewell speaks of tincture of nux vomica in small doses as a remedy for *stye* and similar petty abscesses.

Entozoa: an Introduction to the Study of Helminthology, with reference more particularly to the Internal Parasites of Man. By T. S. Cobbold, M.D. London: Groombridge and Sons.

*** A first-class book in all respects—handsomely printed on capital paper, well written, and full of the newest matter, scientific and practical. We shall in an early review call the attention of our readers to the vast amount of suffering from parasitic diseases which may be saved by an intelligent use of preventive measures.

Catalogue of the Army Medical Museum, Washington, United States. 1863.

*** It is evident that whoever now would be accomplished in Military Surgery must finish his studies at Washington, and survey in the Army Medical Museum this collection, which owes its existence to the foresight of Surgeon-General Hammond. It contained in 1863 1349 specimens of Surgical injuries, of pathological changes wrought by the diseases prevalent in the camps, and of missiles and weapons of all kinds, from the arrows of the Sioux Indians to the latest rifle ball or sword bayonet.

Photographs of Diseases of the Skin. Parts I. and II. By A. B. Squire, M.B. Price 3s. 6d. London: John Churchill and Sons.

*** A coloured photograph, of handy size and small price, appearing once a month, destined to go on for about twelve numbers, and giving in each number a typical case of one of the great classes of skin disease. It is well done, and likely to command success.

On Some Unsolved Problems in Relation to Public Health. By Wm. R. Cornish. Pamphlet. Madras: Gantz, Brothers. 1864.

*** Speaks favourably of deodorising fæces with earth, and removing them in the dry state, and is opposed to a liquid system of drainage. Agrees with the Rev. H. Morule, whose views we believe to be thoroughly sound.

Delineations of the Brain in Relation to Voluntary Motion. By Joseph Swan. London: Bradbury and Evans. 1864.

*** A book which will be thankfully accepted by Practitioners who have but little time or opportunity for minute dissection.

The Sewage Question: a Notice of Chesshire's Catch Pits or Intercepting Tanks. Pamphlet.

*** We think these traps and any other attempts to separate solid from liquid sewage are a mistake.

Hints on the Philosophy of Education. By H. Sandwith, sen., M.D., F.R.C.P. London: Hamilton, Adams, and Co. Pamphlet.

*** Delivered as a lecture before the Hull Literary and Philosophic Society last winter. A genial and scholarly production; advocating a truly broad and liberal education.

Address on the Origin and Early History of the Faculty of Physicians and Surgeons of Glasgow. By William Weir, M.D.

*** They were bound, by original charter, to visit the sick poor gratis on certain occasions.

L'Hiver dans le Midi. Par A. Buttura. Paris: J. B. Baillière et Fils. 1864.

*** A modest pamphlet, which all Physicians should read on whom may devolve the duty of recommending a winter residence for the delicate or phthisical. It praises Cannes.

On the Wolffian Bodies of the Fœtus, and their Remains in the Adult. By W. M. Banks, M.D. Edinburgh: Maclachlan and Stewart. 1864.

*** This is a prize thesis, which deals with one of the most interesting and difficult chapters in the history of embryology. It will be a *bonne bouche* for the advanced student of physiology.

Exanthematous Diseases: their Rational Pathology and Successful Treatment, etc., etc. By John Pursell, M.D. Pamphlet. London: John Churchill and Sons.

*** Dr. Pursell writes like an experienced Practitioner, and recommends the use of small frequent doses of quinine, combined with the ordinary treatment, in scarlet fever, measles, erysipelas, etc.

Lunacy and Law; together with Hints on the Treatment of Idiots. By T. E. D. Byrne, L.R.C.P. and M.R.C.S. London: H. K. Lewis. 1864.

*** Dr. Byrne has the credit of having unearthed the horrible case of Porter, the idiot, at Flushing, near Falmouth, and anything that he says on the subject is well worth reading.

The Treatment of Consumption; with Remarks upon the Properties and Uses of various Remedial Agents. By Matthew Corner, M.D. London: Robert Hardwicke. 1864.

*** Dr. Corner believes in the alliance of phthisis with rheumatism, and in the efficacy of small doses of eliminative medicines, such as one-sixth grain of calomel.

A Short History of the Native Hospital, King William's Town, British Kaffraria. 1864.

*** Two native youths are preparing to come up to the College of Surgeons.

Homes without Hands. By the Rev. J. G. Wood, M.A., F.L.S. Part IX. London: Longman and Co.

Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques. No. II. Paris: J. B. Baillière et Fils.

A Dictionary of Chemistry. By Henry Watts. B.A., F.C.S. Parts XVIII. and XIX. London: Longman and Co. 1864.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 24, 1864.

BIRTHS.

Births of Boys, 975; Girls, 978; Total, 1953.

Average of 10 corresponding weeks, 1854-63, 1710·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	623	606	1229
Average of the ten years 1854-63	603·6	599·1	1202·7
Average corrected to increased population..	..	..	1181
Deaths of people above 90	..	..	5

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa
West ..	463,388	1	12	16	2	3	11	5
North ..	618,210	2	6	10	2	9	13	12
Central ..	378,058	1	11	5	2	2	13	9
East ..	571,158	..	19	16	..	4	11	18
South ..	773,175	6	8	25	6	9	17	34
Total ..	2,803,989	10	56	72	12	27	65	78

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·730 in.
Mean temperature	56·0
Highest point of thermometer	68·8
Lowest point of thermometer	42·1
Mean dew-point temperature	48·3
General direction of wind	S.W.
Whole amount of rain in the week	0·97 in.

APPOINTMENTS FOR THE WEEK.

October 1. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

3. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

4. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

5. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

Obstetrical Society of London, 8 p.m. Late T. E. Bryant, Esq., "Case of Cæsarean Section." F. J. Gant, Esq., "Post-mortem Examination of Case of Accidental Hæmorrhage." Dr. W. Wynne, "Missed Labour." "On Spondylolisthesis," Appendix by Dr. Barnes. Dr. Shortt, "On Deformed Arms."

6. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

7. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

CHLORODYNE,

THE ORIGINAL AND ONLY GENUINE,

Discovered only by Dr. J. COLLIS BROWNE, M.R.C.S., late Army Med. Staff.

BROWNE *v.* FREEMAN.

Vice-Chancellor Sir W. P. WOOD stated :—

Dr. J. Collis Browne "was undoubtedly the Inventor of Chlorodyne;"

That "The Defendant (Freeman) couples his Advertisement with one unquestionable falsehood, which I am sorry to say he has sworn to, but which is proved to be as false as can be;"

Again—"I believe the whole story of the Defendant being the Inventor of Chlorodyne to be as pure a fiction as that story of the employment of his medicine in one of the Hospitals."

"I believe the whole of it to be as deliberately untrue as the falsehood which he has deposed to with reference to the use of it in the Hospitals."

The attention of the Medical Profession generally is especially called to the above extracts from the Vice-Chancellor's judgment, so that they may be made aware of the conduct of this "unscrupulous Defendant" (as he was termed by the Vice-Chancellor), and avoid, for their own credit's sake, having any of their names in association with such untruths, piracy, and deception.

Affidavits from numerous Medical gentlemen were produced in Court, to the effect that they had been misled by the Defendant's statements, and that his compound was entirely different to Chlorodyne, and in many instances had proved very deleterious.

The following eminent firms stated that Dr. J. Collis Browne was the discoverer of Chlorodyne, and that they always supplied his preparation as the Original Chlorodyne, or when Chlorodyne was asked for :—

THE APOTHECARIES' HALL, LONDON.
Messrs. ALLEN & HANBURY.
" JOHN BELL & Co.
" BARRON & HARVEY.
" BURGOYNE & BURBIDGE.

Messrs. COX & GOULD.
" CORBYN & Co.
" EVANS & LESCHER.
" MORSON & SON.
" SAVORY & MOORE.

&c. &c. &c.

PRICE TO THE PROFESSION:—

In Bottles, 1 oz., 3s.; 2 oz., 5s.; 4 oz., 8s.; and in Bottles of 10 ozs. at 1s. 6d. per oz.

SOLE MANUFACTURER, J. T. DAVENPORT, PHARMACEUTIST,

33, Great Russell-street, Bloomsbury-square, London.

N.B.—£100 Reward will be paid to any person giving such information as will lead to the conviction of any one selling as Dr. J. Collis Browne's Chlorodyne that which is not of his manufacture.

P.S.—It was submitted in Court that the Defendant Freeman was the same person against whom Sir James Clark filed an Injunction to restrain the use of his name in conjunction with some Pills.—Vide "Pharmaceutical Journal," vol. vii., pages 412 and 450.

OPENING OF THE LONDON MEDICAL SCHOOLS.

ST. BARTHOLOMEW'S HOSPITAL.

After some introductory remarks, Mr. Callender stated that his object was not so much to instruct as to interest them in their studies, by placing their work before them side by side with suggestions for its pursuit, and with sureties for their ultimate success. Especially he desired to tell them of certain aids to study, which they must practise, each one for himself, because they were self-aids—helps which they must make every use of if they would work with order, with economy, and to the best advantage. As all our knowledge and all our progress had been gained direct from Nature herself, and as she revealed her secrets only in return for real, hard work, so their success with her would be much less if they were not trained to their task, and it was for this they had all of them gone through the lessons and the exercises of their youth. This mind-training was considered of such first-rate importance, that every encouragement had been given them to make its cultivation an attractive task. Without doubt they had already learnt something about their profession; they must recollect, however, that their real work now commenced in earnest, that they now entered upon the studies which revealed to them Medicine as a grand and noble science. The road was at present clear before them, the result in a great measure depended upon their own exertions. They might not, indeed, all excel, but they would all learn a great deal, and he could promise them that if they worked now with industry and with determination, they would not fail to attain to that which all naturally covet, modest it may be, but substantial and honest success.

By their so-called scientific studies (he referred to those sciences with which in the Profession of Medicine they were more immediately concerned) they were to understand those which gave them a knowledge of Nature, of what they saw going on around them in Nature's processes, and of principles based upon observation of these facts; studies which possessed this substantial recommendation, that they gave life and reality, as it were, to their practical work, to studies which would otherwise consist in the experience and learning of bare facts, interesting and valuable in themselves no doubt, but wanting the cohesion and oneness which science gave by connecting them with the ebb and flow of a common-life action. What with chemistry, and botany, and physiology, they might be said, to a certain extent, to have before them all knowledge for their province, and as they knew that much was required of those to whom much was given, so they might be well content to learn that the work which their Profession demanded of them, if they would stand well with their fellow-men, was essentially good work—work which should better their moral nature, and which should entice them to live more in harmony with the hopes they should entertain of the life to come.

After referring to the importance of the study of Anatomy, of Physiology, and of Pathological Anatomy, Mr. Callender told them that after all their chief difficulty lay in learning how to treat disease. Here they must bring to bear what was known as practical knowledge, the wisdom which experience gave, that experience of which Carlyle wrote, "She doth take dreadfully high wages, but she teacheth like none other." Nor was it difficult to explain to them what was meant by this practical knowledge. A Physician, for example, might know all about his subject, man—his diseases, their causes, their effects, and their recognised treatment, but above all this was the facile and dexterous handling of his knowledge and of his remedies, so as to fence and parry, and, if possible get the better of disease, and, be it how it may, this was a possession few had excellently well, and which, despite all its training, the scientific mind sometimes failed to grasp. At the same time, the value of scientific knowledge was great. They lived, it was said, in a practical age. By all means let them be practical, but let none the less possess the scientific knowledge which fitted them to be so. Practice alone could give them experience in treatment. Books could not do more than teach them general principles, for man's body was so moulded and confirmed to the mind which controlled it, that influences of education, habits, associations (the accompaniments of health), gave rise to endless variations in the progress of, and consequently, in the management of, disease, which no book yet written could even pretend to indicate. They should learn to recognise means of cure other than those tabulated in the Pharmacopœia. Fresh air, diet, cleanliness, mind-occupations, and the like, these were the remedies with which to assist Nature in throwing off disease; they should never forget Nature effected, if possible, the cure; and that the Physician was best skilled, who, by judicious selections from his Materia Medica, so lightened her task as to relieve the passing pain, who supported, and, if needs be, stimulated her efforts, or who transferred the stress of a disease to where it could be better borne by the system.

They would advantage themselves much more of the help their teachers willingly gave, if, avoiding the common errors of frivolity and want of purpose, they would strengthen themselves for work with materials which were always ready to their hands. First, they should practise control and discipline; not the discipline to which all must succumb, that which society imposed, in some guise or another, throughout life, upon all, from the highest to the lowest. This was the discipline enforced from without. The self-discipline of the mind was a voluntary restraint—the discipline which resulted from willing nothing until it had been well thought over, and the order which must ensue as to the outward sign of such methodical, business-like self-control. The intellect, too, must be tutored in obedience to moral control; for although man might reason well and possess the will to carry his purposes into practice, yet he would systematically err if there was not over all this a higher influence, the absence of which the world was a sharp censor to detect. Subject to moral control, to be well drilled in self-discipline they must habitually reflect and think over all matters which engaged their attention, and thus utilise another of their possessions—the power of concentrating thought. Nothing was more difficult to strengthen than was this faculty, none more to be regretted in its weakness. The mind of man was, in fact, in perpetual movement, and this motion resulted onty in unfettered imagination when the ordinary exercise of control was suspended or diverted. In the pursuit of discipline they acquired thoughtful habits, and by thus reflecting and meditating they ripened another of their possessions—memory, which required this exercise to enable them to put forth its fulness of power. We were much in the habit of speaking of memory as a gift specially to some, but in truth it belonged to all, and only needed calling upon to respond. Memory, however, was often found to be more subtle for one thing than for another, a fact which merely proved that in many cases inclination or necessity prompted its cultivation for some special object. This was the case in most instances of remarkable calculators, in whose reckonings memory played so important a part; as it was, too, with Charmidas, the Greek, of whom Pliny wrote that he could repeat from memory the contents of the largest library; so, too, with great linguists, as the Cardinal Mezzofanti. They might be quite sure he was a bad workman who complained of his memory, and that by work and by degrees they would certainly remember better and better, and as their knowledge lived in their memory so it would be ready for use and for application on every apposite occasion; it would be always at hand to support their opinions or to illustrate their treatment. The impressions would be most sharply and durably cut in the mind which made their marks through congenial tastes; and knowing this, he would not press routine too closely upon them, but, whilst endeavouring to interest them in their studies, and to make their minds work with intensified vigour, he would leave them to apply themselves to the acquisition of knowledge through those channels in which they were best aided by their memory.

To practise control and discipline, to exercise thought and memory, required patience and perseverance. As perseverance, however, was a term of general significance, and implied the pursuit of an object irrespective of the good or evil which might ultimately come of it, industry, honest industry, should rather be their watchword. They should set down in the very beginning their resolve to be faithful to it, for without it there was no hope of success or of future distinction. Originality, new thoughts, came only through patient work: examples abounded. It was especially through those taken from humble life that they could best appreciate the great results which followed industry in the pursuit of knowledge, leading men out from comparative barbarism, and enabling them to be serviceable to others, and to make their mark in the world. Although it was a twice-told tale, he could not

refrain from warning them against relying upon Fortune, that various goddess to whom Demosthenes dedicated, in golden characters, the shield which he left disgraced upon the battle-field of Chæronea; the same Cicero invoked in one of his prologues as the *adjuncta fortuna* who crowned success. The reason for distrusting fortune was simply that no such thing as luck or chance, as they should understand the term, virtually existed. It was confused with the clear sight which seized the right moment for action. The battle of Marengo was won by a charge of the French cuirassiers, and the world said, "By what a lucky chance;" but General Kellerman described his exploit, "I see it—I am in the midst of them!" and thus in a few words gave the key to the successful result, by expressing the rapidly-formed and accurate judgment of the well-trained officer, which enabled him to make use of an opportunity one less practised might have let slip. So, then, to avail themselves of so-called fortune, they must be well trained through habits of industry and observation to be ready to make good use of opportunities.

They would be helped, then, by the exercise and training of their own powers, to assist themselves in the pursuit of knowledge. Much as they might learn, their work knew neither halt nor stop; they must continue at all times and in all seasons in attentive observation upon nature, striving to get as near truth, or truth's likeness, as they could; they must bear in mind that, after all, the acquisition of knowledge was not the only or, indeed, the chief aim of their intellect, for knowledge and wisdom, far from being one, have ofttimes no connexion. And wisdom was not to be mastered by work alone, like knowledge; it came only, assisted, it was true, by knowledge, as the growth of time. Wisdom was the sum total which resulted from the moral control, the self-discipline, and the industry of which they had been told. Yet he scarce expressed himself aright in naming wisdom to them as a sum total, for it was ill-likened to a final number that would be indeed perfection, for whatever share of wisdom they might possess, they must still pursue restless for more; for what more excellent gain than to feel that increasing years added to their capabilities for the wiser practice of their art? It was something to know that at least they were now working in the right direction. He would not conceal from them that he considered their work must increase with the advance of knowledge generally throughout the land, and that more would be required of them if they were to maintain their position in advance. The claims upon their industry were without doubt many, and they were increasing. Let them remember, however, that perseverance was irresistible; before it their difficulties would imperceptibly disappear, and their work was sure to be crowned with the desired success, if only they would act up to the advice given by the Wisest of the wise—"Whatever thy hand findeth to do, do it with thy might."

Had they seriously thought about the work which, as Physicians and Surgeons, they would hereafter be responsible for? Was it to heal the sick? Was it to stand, not unfrequently—he said it with all humility—between life and death? It was more even than this. It was to do this better, more wisely, more surely than heretofore. This had been our work in the times gone by—we toiled for it now; and this it was men would look to them for in the times to come.

GUY'S HOSPITAL.

Dr. J. Braxton Hicks commenced by giving a hearty welcome to the students. He considered the first year the most important of all for stamping the character of their manhood for good, for evil, or for nonentity. He urged upon them the necessity of keeping up the character of the school, for to them, as its representatives, the world would look. He alluded to the flourishing state of the school, and the high position its students took at the examinations. He then dwelt upon the objects of the Profession, its endeavour to mitigate human suffering, and its power of improving and ennobling the minds of its followers. He said;—"Beyond the duty and high privilege of man to endeavour, as far as possible, to assimilate himself to the Divine Essence, the next end of man's life, as taught by the Great Master, is to alleviate poor suffering humanity; and this is the object of the Profession you have now selected. There are, doubtless, other occupations which hold forth promise of greater gain; nay, there are other Professions which offer hopes of greater fortune and higher rank, but there is none which, while it enables us to gain a competent living, will enable us to carry forward in ourselves the great ends for which we were created, and to further the designs of universal brotherhood."

"Ours, gentlemen, is a noble profession, the following of which honestly and to our best ability brings its reward with it. Besides, in following this Profession, you will have opportunities of seeing the highest qualities of man, as well as the most opposite;—human nature endeavouring to raise itself above the earth, yearning after the Great Ideal, stretching out one hand, as it were, to the heavens to bring down, if he can, a ray of its ineffable light; on the other hand, you will see the same nature beneath the level of the beasts, endeavouring to efface all traces of the Divine, extinguishing every spark of light, bringing both mind and body by drink, sensuality, and crime into a state worse than the brutes. Let them be a lesson to you; while the former tends to give us, perhaps, a too high notion of humanity, let the other warn you how delicate a growth is the human intellect and soul, how readily it can be defaced and destroyed by want of culture and need of care; and how responsible is the custody with which our Creator has intrusted us." He then called upon them to acknowledge the responsibility and anxiety of a post having such noble ends in view as the Profession of Medicine had, and appealed to them to take every advantage of the opportunities offered them, considering upon their actions, right or wrong, the life of others depended;—not that they were responsible for every life placed in their hands, but for the acquirement of as much knowledge as their time and abilities permitted. He pointed out how that neglect on this point would add grievously to the cares of a post sufficiently well stored with them. "Enter, then, gentlemen, upon the threshold of your calling with an inward resolution to act honestly in your studies, and boldly, manfully to overcome idleness and indolence. To attain this knowledge the only way was to work. Work is the beginning, the middle, the end of our Profession—work, steady, earnest, manly. It is at once our privilege and our duty."

Dr. Hicks then proceeded to point out the divisions of Medicine into the principles and their applications; and that he was the most accomplished Practitioner who united these in their proper proportions. He advised the students to attend during their first two years to compassing the principles, taking, however, opportunities of seeing practice in the wards. "Chemistry, anatomy, and physiology, comparative anatomy and physiology, botany and physiological botany will be studied by you in the first two years. They are indispensable to you, they are more or less so thoroughly interwoven into the healing art that you can make use of them at every moment; helping you to understand this phenomenon or that; enabling you to explain by close analogy facts which would otherwise be inexplicable; giving you a broad insight into the bearing of circumstances constantly coming before you in practice. Some of the sciences which I have just now named are not all equally important to the healing of the body, but I am at a loss to say which is the most and which is the least valuable; anatomy and physiology, perhaps, may rank highest, and botany the least; yet how can we understand animal physiology without vegetable, or human without comparative? The whole Cosmos is so inseparably bound together in one link that as there is no Pantheism in nature, neither are there separate studies in Medicine. Having acquired a fair knowledge of these sciences, they would then study the aberrations from the normal state, called disease; the mode by which Nature herself undertakes to rectify these; and how to assist her. He indicated that it was the part of modern Medicine to study the natural progress of diseases, to note what kinds tended to recovery, and what forms to the destruction of the patient, and what outward or inward causes influence them. "The study of the natural history of diseases is one of the most important I can recommend to your notice. The study of pathology is as important at the bedside as its study in the dead-house. The greater proportion of diseases recover, therefore we know but little of their post-mortem appearances, we must study them by their temporary effects upon the state of the body, compared with that of health, which you will have learnt by your physiology. Here, then, is a wide field in which to bring your knowledge to trial. Physiology wherewith to contrast the state of health with that of the disease before you; anatomy to point out the organs affected; your minute anatomy and use of the microscope to identify new formations, or to discover disintegrated tissue." In speaking of the study of the effects of remedies, the lecturer proceeded, "It will be your duty to study them closely, very closely, in

order that you may not overlook their real action, nor attribute to them effects which really do not belong to them." He continued to point out their different action in health and disease, — "It will require long and patient bedside study before you can make yourselves masters of the subject, and yet this is the end of our labour; this is the goal we seek. We desire not to be spectators only, but helpers also. Of what avail all our travail, if in the end we are unable to render assistance?" He then begged them not to consider remedies meant solely drugs, but included everything which could be brought to bear against the adversary. He warned them also not to fall into the error into which some have fallen, to deny any efficacy to drugs, or, at least, considering them of no value. He advised them not to be too restrictive in the classification of disease. Much variation existed; in fact, many diseases tended to run insensibly into others.

He showed that the task before them requires a mind improved by habit to the full employment of its powers in close and careful observation; it required energy and continuous application, for the more that was learnt the more required to be learnt; if they did their duty they would only learn how to learn. "Students are we all to our graves. To grasp the hidden wonders of the universe is beyond the power of our finite mind. We have much to learn and much to unlearn. What we do learn let us do it in a humble, teachable spirit, acknowledging our liability to err, and the necessity of frequently retracing our footsteps, lest we go too far out of the right road."

The task (he continued) also required a strict love of truth and rigid accuracy—a truth which not only led them to tell all they knew, but which urged them to see that they knew all they could. He then advised them carefully to weigh well all the remarks of their instructors, at first to take them on trust, afterwards they could judge for themselves. He recommended their inquiring in any case of doubt, promising that his colleagues and himself were always much pleased with their doing so, and thought that in this respect Guy's School differed much in degree from others. He congratulated the school on the existence of the reciprocal understanding existing between the students and the school, and said:— "Long may this pleasant, gentle relationship continue. Long may we be as one body united for the same great purpose, namely, the advancement of our common Profession, and, indeed, we ought not but to have this mutual feeling. Ask yourselves for what are we endeavouring? What is our earnest desire? None less than this, the advancement of our common Profession. Then, should we not be united? Let us go hand-in-hand, lest we fail in the attainment of our great object." In seeking to impart instruction, however, with delight, they did so with much anxiety, when they remembered that they also were learners; that when they found the opinion of their instructors varied they were not to cast them aside in despair, but to weigh them, and the truth might be found in their combination. Yet, he argued, much had been done of late; to a certain extent they would find sure foundations and definite, clear rules, at least for their first steps; afterwards they would find it more uncertain, and they would require more caution in order to secure the right road.

Dr. Hicks recommended as important help discussion on the diagnosis of cases amongst themselves, and also in public in the Pupils' Physical Society, which latter would give impetus to thought and practice in public speaking, a point much neglected in the Profession. He then called to their mind the necessity of cultivating the use of the hand on every possible occasion, pointing out the every-day requirement for delicate touch. He advocated to this end the study of drawing, painting, and particularly practice in carpentry, the latter being of especial value to the Surgeon. He went on to say:—"To be successful, and thoroughly so, we must collect sands from every shore; the difference between men is not so much dependent on their different mental capacities as in the amount of general knowledge." He then adverted to the specialist, who was formerly the type rather of special ignorance, and he did not confine the term to the minute divisions of Medicine, but to the greater kinds of Surgery and Medicine, where formerly Physicians made a boast of their ignorance of Surgery, and Surgeons of Medicine. All this had tended to retard our knowledge, although he admitted it was impossible to do without divisions into which practice was divided, in it there were many disadvantages to the student, who frequently was apt to consider when the patient was warded the diagnosis thereby already settled; and if the case proved ultimately to have been placed in the wrong division of the Hospital, the interest in it too frequently flagged. He alluded to the great advantage of having all classes in one Hospital, of which he begged them not to lose sight, nor be specialists in their studies.

Dr. Hicks warned them against the dangers they would be exposed to in their new freedom from control. He continued: "In the discharge of your duties you will find many difficulties—and who does not?—and many dangers; the difficulties you will overcome by resolution to follow the right path: the dangers by that spirit of devotedness and Christian feeling which has always distinguished our Profession, which has urged its followers to succour the dying amid pestilence, amid showers of bullets, or on the sinking ship. Need I fear that you, devoted to so glorious a profession, will, with all these noble examples before you, shrink from its dangers, or quail beneath its difficulties?" Recommending to them the value of a kind manner, he said: "To those of you who have been laid on a bed of sickness I need not speak. You have experienced the effect of kind words and gentle actions. To you, who in the full enjoyment of health know not the weakness of body nor depression of mind produced by sickness, I would say: be very careful, lest in haste or from thoughtlessness you pain the mind, while your skill is endeavouring to alleviate the sufferings of the body. Remember in addition to this there may be a mind ground down by care and want, or a heart pierced through by sorrow. Add not another shaft, but speak gently and in kindness."

To the students about to leave he cautioned them that their position depended mostly upon themselves; that although the Profession gave them a station amongst the best in the land, should their actions fall beneath the proper standard the Professional garb would not cover them: if it were to do so it could only be by the lowering of that standard, "which God forbid, and which could never occur while her sons were in the main true to her." He also inculcated strict Professional behaviour to each other, and concluded by wishing them, not freedom from all cares and troubles, but that energy, perseverance, and steady heroism which would enable them to overcome them; self-reliance, which only a good knowledge of their Profession could give them; and that good name which an upright character would surely bring them.

KING'S COLLEGE.

After some preliminary remarks, in the course of which Professor Cartwright referred by simile to the shortness of time and to the necessity of duly appreciating it and taking every advantage of present opportunities, he said that from his comparatively limited experience as a lecturer he doubted his power to interest his audience to the same extent as they had heretofore been interested; but he considered it was fortunate for him that he had to deal with a subject so noble and comprehensive in its nature as the one on which he was called upon to address them,—one which called forth the most powerful exercise of the mental faculties, the warmest sympathies of the nature, the most scrupulous regard for moral obligations, the highest sense of honour and integrity. That in support of such a science, from which mankind so largely reaps the benefit, all were bound to contribute to the maintenance of its fair name and reputation, and were bound also to one another by ties of faith, principle, and good feeling. They were called upon also to uphold sternly the code of honour, to support proper etiquette, to be fair, open, and honest in Professional conduct. He then referred to the breaking up of Medicine into specialties, observing that the fault chiefly lay with the public themselves, especially the better class, who insisted on wandering about from one Practitioner to another whom they thought were individually famous for separate complaints, as if a separate order of principle and practice were necessary for each organ and function of the body. He then enumerated certain specialties which might be rightly considered as legitimate for organs which required, from their mechanical construction, particular treatment and delicate operation, and which were subject to a variety of accidents and diseases, to such an extent that the Practitioner found on the one field his time and attention fully occupied. He then referred to a distinction often made between practical and theoretical minds, and said that in Medical science there should be no such distinction. The acquirement of a practical knowledge of their profession was as indispensable to them as was the acquaintance of the engineer, architect, sculptor, or painter, with all the elements

and practical details of their arts. The practical acquaintance with Medicine and Surgery, together with the mechanical part of the practice of Surgery—such as the uses and application of splints, bandages, and apparatus of various kinds, and contrivances which are constantly required in practice—should be mastered with as much care as the mechanist learns the constructive elements of his art, or the engineer or architect the knowledge they must possess of the materials required for their respective works. The lecturer then urged on the students the necessity of a sound foundation, and said that anatomy was the foundation on which to raise the superstructure of practical and theoretical knowledge. He impressed upon them the comprehensive and deep importance of physiology, and mentioned the subjects chemistry, botany, and materia medica, as those which were essential studies, and very important as bearing more or less directly on Medical education. This foundation made, he then said, the superstructure might be safely added, which would consist in the lectures on Medicine and Surgery, including Obstetrics, in clinical teaching, in visiting the wards of the Hospital, and attending the out-patients' department. Mr. Cartwright then begged to say a few words about his subject, and made mention of the circumstances which led to the institution of a chair of Dental Surgery; he said that the Council of the College of Surgeons had carried out measures by which a systematic and better education would be afforded to those who intended practising as Dentists, and the Council of King's College had made arrangements by which those views would be promoted, and which would afford general students the opportunity of acquiring a knowledge of that special department of practice. The institution of an examination at the College of Surgeons, and the certificate showing a general competency to practise, he thought a wise and liberal act of the Council, and one which neither the College nor its members would have any reason to regret. The lecturer then spoke of the value of lectures as a system, the light in which students should regard them, and the object which they who deliver them have in mind, and at the conclusion of those remarks, said that doubtless very much was required now during studentship, which would require hard and steady work to master, to meet which he suggested a methodical arrangement of time and a determined adherence to it. The subject of healthful *régime*, both of body and mind, was then introduced, and the various qualities of the former and different degrees of the physical condition of the latter, were alluded to, as well as the exercise necessary for the maintenance of health and the best form of relaxation for the mind. The lecturer then said that study terminated not with student-life, and that when the ordeal of examinations were over, much would still have to be learned—more, indeed, than could accomplished by an individual in a life infinitely longer than that which is permitted us here. Mr. Cartwright concluded his address by saying that all were bound to investigate to the utmost the secret and mysterious phenomena which give life, vitality, and animation to all around, and to endeavour to arrive at a comprehension of inanimate things which are above, beneath, and about us, for that was a duty men owed to their Maker, and themselves, and in their special sphere of science, they owed to suffering humanity; but he begged of the younger portion of his hearers never to permit the search into the mysteries and difficulties of science to tempt them to be led into disbelief in religious faith and responsibility, but ever to remember that the one properly estimated will conduct nearer to the other. All present might bear in mind with advantage the significance attached to the three words which formed the College motto, "*Sancte et sapienter.*"

THE LONDON HOSPITAL.

Dr. Langdon Down, Assistant-Physician to the Hospital, delivered the introductory address. He remarked that they were that day inaugurating the seventieth session of the London Hospital College, and dwelt on the advantages which resulted from the connexion of the Hospital with a Medical School; that it provided a vast amount of gratuitous service from the pupils in the College, while the presence of intelligent students of Medicine and Surgery in the waiting-halls and wards of the Hospital was a constant influence for good; that each member of the staff felt himself surrounded by active and thoughtful minds; that all his doings must be such as to bear the most careful criticism; and that he must be prepared to give an intelligent reply as to the reasons of the treatment he prescribes and the principles he enforces; that he had every stimulus to compel him to keep in the vanguard of Medical progress, to reason clearly, and to act judiciously. He pointed out that the interests of science were parallel with those of humanity; that the connexion of the Hospital and School afforded the means for the evolution of scientific truth.

Dr. Down referred briefly to the Medical politics of the last ten years. He felt that the Medical Act, if carried out in good faith, would tend to raise the status of the Profession; but lamented the conduct of some of the corporations, who were doing all they could to perpetuate mediocrity. He congratulated the Profession that the Royal College of Physicians of London had undertaken the examination of the General Practitioner, and that the University of London had added Master in Surgery to the list of her brilliant degrees.

Dr. Down then referred to the discussions which had taken place of late years with reference to the Naval Medical Service, the Medical treatment of the poor, and the Army Medical Department. He thanked the London daily press for the able manner in which they had enlightened the public on the suicidal policy which is being practised in reference to the Medical service of the Army, whether in India or that of Her Majesty. He felt sure that under the present arrangements the accomplished Medical student would dismiss from his consideration a department in which the glory of killing eclipses entirely the honour of healing; that the best men would seek for success in civil life rather than tolerate official insincerity or compromise their self-respect.

Dr. Down then dwelt on the enlargement of the Hospital which was then progressing, and of the advantages which would follow to the Medical School. The unparalleled subscriptions which had poured in were accounted for by the peculiar claims of the locality, the deserved repute of his colleagues, the popularity of the Hospital, and the perfection of its civil management.

He then addressed himself to those who were returning to their studies, and encouraged them to come with earnest hearts to the renewal of the struggle; if in past times they had allowed precious opportunities to pass unregarded, let the future be the compensation of the past. If zealous had hitherto been their work, and increased tension not possible, their season of rest had been a joyous one, because it had been nobly earned. They had realised the vantage ground of effort, let not their past success be marred.

He then directed his observations to those who were commencing their academical course that day. On their choice of a profession, had they thoroughly considered the requirements it demands and the sacrifices it claims? Had they by a process of introspection well satisfied themselves that they came with holy purpose and high resolve to be true to themselves and to their race in the exercise of a vocation, to which, if they did not bring a loving heart and a vigorous mind, it were better that they came not at all? They were embracing a profession which does not hold out the prospect of unlimited wealth or of political renown. The coronet was not a prize nor the marshal's batôn a possibility for them; the mitre was not the termination of their career. Yet he congratulated them on their decision. They might readily insure a competency without the risks of mercantile life. Their capital would be knowledge, which no bankruptcy could take away. Their arena would be the chamber of sickness, and their eloquence would be called upon to stay the torrent of human sorrow and mingle in the cadences of human joy. Their clients would rarely present a case in which their honour would be sacrificed in advancing to the rescue. Their battle-fields would be mighty and varied ones. They would need all the sagacity which intrepid exploits require; all the fortitude which daring deeds demand. They would have to stand in the breach unruffled, when all around was turmoil; to keep serene their judgment amid scenes of agonising pain and the wanderings of alienated mind. They were embracing a faith which was catholic; a creed which was wide as humanity. They would not be bound down to musty formularies or worn out dogmas. Progress and truth-seeking would be the articles of their belief, and the stimuli of their lives. Their homilies would have to be addressed to the consciences and hearts of men of every variety of creed, and perhaps with no creed at all. Their work would be in the spirit of Him who went about doing good, and of His Heavenly Father, who "sendeth rain upon the just as well as upon the unjust." The opportunity would ofttimes present itself of pointing a moral and of enforcing a religious truth, of showing the rightness of virtue and the folly of vice, of teaching in a spirit not self-righteous

the "beauty of holiness" and the deformity of sin. Their counsel would be sought in the intricate difficulties of private life. Revelations would be made to them of the frailties as well as the nobleness of humanity. They would oftimes become the depository of secrets sacred as the whisperings of the confessional. It would be theirs to minister to a mind diseased, and dispel the mists from that bright mirror which ought to reflect the image of divinity. Such being their mission, what during their student period had they to do? How were they to do it?

Dr. Down insisted on the value of preliminary training, and expressed himself as of opinion that no youth destined for the Medical Profession should leave scholastic work until he had matriculated at the University of London. He dwelt on the importance of giving much of their time to anatomy and chemistry, and traced the mode in which these subjects ramified in the other departments of Medical knowledge. Physiology was of essential importance to the right appreciation of disease. Histology, vegetable physiology, and comparative anatomy had each important claims on their regard. The study of systematic botany and systematic zoology cultivated the faculty of observation which was so essential to a Practitioner of their art. Materia medica and therapeutics should secure some share of their attention. The more thoroughly they made themselves acquainted with the subjects he had enumerated, the more successful would be their efforts in the attainment of what should be their great end—to become successful and cultivated Practitioners in Medicine and Surgery. To be practical should be the culminating point of their desire, but they should view with suspicion those who are ever throwing doubt on the man of culture, and who were pluming themselves as being "practical men." They would find that they were for the most part those who would soon dwindle down to the merest routiniers, ignoble workers in a noble calling. He urged them on the basis he had indicated to raise a fitting superstructure.

The Hospital they had selected presented a field for Surgery which was perfectly unrivalled. The wards and waiting halls would afford them the means of becoming accomplished as Physicians. Forensic medicine and the diseases of women and children should share much of their attention. He combated the tendency in the present day to disregard oral teaching, and gave as the result of his observations that the gentlemen who despised lectures were usually those who would never reflect credit on the school or profession to which they belonged. His advice was to read vigorously, but also to attend the dissecting-room, the demonstrations, and lecture-room no less assiduously. When the professors examine, as well as lecture, they should never lose the opportunity of being questioned. On the commencement of their studies it was very important that they should have a well-defined aim, and they should take care that they aimed high enough. There were numerous examining bodies, far too numerous in the lecturer's opinion, many of them to their disgrace had been trying to solve the problem: With how little of this world's knowledge might a Medical man set up? Dr. Down advised the students to aim for the degrees of the University of London. They had the undisputed reputation of occupying the highest position in the United Kingdom. If they obtained them they would have titles that would never cause them to shudder lest their source should be discovered; they were degrees which on account of their veritable character commended themselves to the public and the Profession in a way which made them most desirable objects of their ambition. Succeeding in these, any other qualification they might deem it desirable to obtain would be taken by them as mere bye-play. Dr. Down emphatically insisted that however important were reading and lectures they must be subsidiary to their work in the Hospital. The out-patients' departments would offer vast fields for diagnostic culture. The receiving-room would supply abundant opportunity for acquiring manipulative skill and ready tact in grave emergencies, while the wards would demand a devotedness which would secure a rich return, and for which nothing could be substituted. But in the acquisition of knowledge they should ever cultivate a regard for the feelings of the patients. Their walking would be amongst the sickened and the sad. They would have to deal with sensitive spirits as well as injured bodies. Their education as Medical men was to be valued, inasmuch as it cultivated not one aspect only, but the entire man. It would, therefore, be sadly incomplete if while storing their minds with knowledge it failed in educing sympathy with suffering and tenderness to the troubled.

Dr. Down could not inform them of any royal road to Medical knowledge. He knew only the steep, but well-trodden one of earnest and persistent work. Their mountain journey would be aided by guides at every pass—guides who had made successful ascents themselves, and who had not lost sympathy with new adventurers whose aims were high, but whose courage faltered. These guides were conscious of dangers, of which they would in all earnestness warn them; they recollected some whose ascent was not a success, others whose careers ended in disappointment.

The lecturer thus concluded: "The guides remembered, however, other than doleful tales and miserable failures. They preserved fresh in their memories the names of some of the companions of their own first ascent; of others who, before and since, had scaled the difficulties, and who were now far away from leading-strings, making explorations where no human foot had been; who were ascending higher and yet higher, with no assistance of chart, for their labour was in order to provide one; who are daily collecting facts and recording observations; who are permeating mankind with their thinkings; who are carving their names in enduring characters, and are spending and being spent for the glory of God and the good of man.

"Let these animate you. Let the student's life which you commence to-day be a fitting prelude to your work beyond the stage of pupilage, and to the higher life hereafter. Let it be characterised by all that is earnest, true, and noble. Let it be honest, despising all seeming in lieu of reality. Let it be gentle, blossoming with kindly acts and genial sympathies. Let it be generous, crediting to the full the goodness of your fellows, and hesitating to sully their fair fame. Let it be brave, meeting trials with fortitude, and sharing the burthens of others. Let it be wise, redeeming the time, and adding knowledge with increase of days.

"I have already furnished you with the formula to aid you in the solution of your problem—the secret that will command success, the talismanic charm which turns everything into gold, the potent spell at which all difficulties vanish. It is earnest and persistent work. Let it be supplemented by a gentle, Christian life, terminated by a peaceful, hopeful death."

ST. MARY'S HOSPITAL.

The lecturer, Jos. Toynbee, F.R.S., began by referring to the many subjects of interest which suggest themselves to the mind of the Medical man as he reviews his professional experience, and which might serve as the theme of such a discourse as the present. But, he said, he passed them all by for one which, to men engaged in practical Medical life, must be of greater interest than any—the Philosophy, or, as he preferred to call it, the Signification of Disease. By this term he meant the end or object which diseases served in reference to the animal economy; and he should endeavour to maintain the position that disease was in all cases not a destructive but essentially a reparative process, illustrating his argument by cases drawn exclusively from his own (the aural) department of Surgery. He combated the current views on this subject, which regard disease as a process, the tendency of which is to injure the frame, and referring to the words of Hunter, set out with the propositions that every disease is preceded by some injury; that the disease is essentially a process tending to repair that injury, and that its object is to reinstate the normal condition. Even in cases in which its result is fatal, the tendency of the disease is to repair injury, though, owing to the circumstances present, it may take a form or affect an organ that renders it destructive to life; for the injury may be either local or general, or both, and a local injury may bring about an attempt to remedy a general one, in a way that fatally involves a vital organ. Thus an injury to the meatus of the ear in a healthy man induces a disease—inflammation and suppuration—which repairs the damage; but even a less injury to the same part in a person labouring under the poison of gout (a general injury) may bring on a more intense and wide-spread inflammation, which involves the brain and issues in death. But this more extensive inflammation is equally an attempt to repair an injury—the general injury of gout. If the inflammation occur in a less vital organ—say the ball of the great toe—its character as relieving the system, as repairing its general injury, is recognised. Many more examples were given, with illustrations of the principles and mode of practice which this view of the nature and meaning

of disease enjoined, and the lecturer concluded in the following words:—

"I cannot but think that if the view of the philosophy of disease indicated, barely indicated, to-day has a foundation in truth, it may in some respects at least, be more acceptable to the human mind than is the view commonly entertained.

"To my own mind, at least, the thought is not acceptable that God, having given to man life with its marvellous attributes, sends disease for the purpose of taking that life away. No! I cling rather to the belief that man, placed on this wonderful globe to battle with, and to live by, its elements, finds it his destiny, as he struggles upwards, in ignorance and in weakness, to encounter difficulty upon difficulty, to suffer injury after injury; that, although to endure injuries is thus the inevitable lot of man, still in disease is found at once a warning of the presence of an injury and at least an effort towards a remedy. And because man, in the great battle of life, is oftentimes so deeply injured as to be beyond the possibility of a cure by either nature or by art, still let him not repine, for even sickness has its blessings and its hopes, and through its trials and its sorrows is held the sacred boon of life. So, too, when our spirits are cast down by a view of the sad amount of misery inseparable from disease, let us take heart from the conviction that even in it our limited ken must recognise beneficence; and further, let us trust confidently that as each succeeding generation of mankind learns better how to live, how to gain the good of life, with less encountering of injuries, so will disease become less necessary and will diminish in the land."

ST. THOMAS'S HOSPITAL.

The Introductory Address was delivered by Dr. Clapton, the Dean. After a few introductory remarks, the lecturer paid a high tribute to the memory of Mr. Joseph Henry Green, the late consulting Surgeon to the Hospital. He then addressed himself especially to those gentlemen who were about to commence their Hospital career, and gave them much good advice and exhortation. He did not disguise from them that they had before them many a laborious and tedious day, many a night half spent in study, and many an anxious hour before presenting themselves for their examinations; and at the same time he impressed upon them the necessity of avoiding that undue ambition and immoderate ardour in their studies which too often lead students to neglect and injure their own bodily health. He recommended them to take advantage of the opportunities afforded them of obtaining healthy recreation and manly amusements in the intervals of their studies, as well as agreeably recruiting their minds by various scientific and literary pursuits, as conducing both to a healthy state of body, and to that vigorous exercise of the mental faculties, for which there is such a heavy and continuous demand in every Medical man.

The lecturer then entered into details relative to the duties of first year's students, recommending them in what way they should pursue their studies, and make the most of the great advantages and opportunities which the Hospital offered them. The subjects of the first winter's course of lectures were more particularly alluded to—viz., Anatomy, Physiology, and Chemistry. He urged them even from the first to pay earnest attention to the bed-side and the practical part of their Profession, for that it is only by properly combining principles with practice that one can ever hope to become a scientific and successful Practitioner. The students were then exhorted to work together as much as possible, and at the same time were warned against forming friendships with the vicious and idle. It was remarked that nothing was more gratifying than the immense improvement in the character and morals of Medical students of late years, a circumstance which was in some degree attributed to the gradual alterations in Medical education.

The lecturer then spoke to them of their future path in life. After alluding to the many anxieties, responsibilities, and uncertainties connected with private practice, he turned to the brighter side and explained the many circumstances which made it one of the most interesting and intellectual, as well as the most noble and useful of Professions. No greater pleasure, he said, could be found than the pursuit of science and the relief of suffering humanity, when undertaken with right principles, leading as they do to the exercise of the highest Christian virtues, as well as to the attainment of honour and success in life.

In respect of the public services, Dr. Clapton made particular reference to the present deplorable state of the Army Medical Department. He said:—

"It is most unfortunate, to say the least, that the terms of service are so unsatisfactory that good men will not accept them, and the authorities are at their wit's end to devise some means by which they may secure indifferent men. There must be something radically wrong when the army in time of peace urgently needs Medical officers, and cannot obtain them. There are plenty of Medical men, and good men, too, who would be willing and glad to enter the service if only the terms of inducement were such as gentlemen would accede to. I have taken some pains to learn by personal inquiries amongst present and past Army Surgeons as to what the grievances really are. It seems to me that the fundamental evil is, that the Medical Department is, as it were, between two enemies. Each is willing to grant what the other refuses to give. The Horse Guards have no objection to the department being better paid, but is most jealous of granting any increased rank. The Treasury would be willing to see every Doctor with the rank of a general, provided he get no increase of pay; and so the poor Doctor falls to the ground. The Horse Guards especially have shamefully treated the department, and will no doubt continue to do so, if by such means as they are now attempting they can induce any sort of candidates to fill the large number of vacant appointments. If they attract only second-rate men, let them, at all events, not complain if these do not turn out first-rate. They offer no inducements or advantages to the good and able ones; and now, failing such, they are trying to secure the idle and unsuccessful—men who are what is called in the army, 'Her Majesty's hard bargains,' who draw the same pay as the really good men, enjoy the same privileges, and from their known incapacity are never given any harrassing work, and in consequence get more leave. Among the older Surgeons in the army a great grievance is, that they can never feel settled anywhere, and are never consulted as to where they would like to be ordered. As a recent instance, an Inspector-General of Hospitals, a very able man, with a large family, had scarcely been settled at Aldershott six months when he was ordered off suddenly to Malta. He could not afford to be on half-pay, and, though feeling acutely his hard lot, after nearly forty years' service, he went, and almost immediately died of fever. His widow is now grateful for the gift of £5 from a charitable society. It is certainly a great drawback to the Medical Department that there is so little occupation found for Surgeons wishing to retire from foreign service, but very willing to do any fixed work at home. The other departments of the army have an immense number of appointments to retire to—such as those of militia adjutants, recruiting officers, volunteer instructors, governors of prisons, superintendents of police, and so on; but there are no similar appointments for Surgeons; so that many of the older men, who would retire if they had anything to fall back upon, stay on, and so stop the promotion of their juniors. It would really be good economy for Government to make a number of civil appointments for half-pay Medical officers—such as those of inspectors of prisons, of vaccination, and the like, who should be bound to go abroad if needed in time of war, but not so liable to be moved for any other cause. Then, again, a glaring grievance in the Army Medical Department is the almost total denial of leave of absence. The Medical officers should get at least one month in the year; other officers get nearly three. A former student of this Hospital, a most able and accomplished man, Mr. Edward Wrench, who served with great distinction throughout the Crimean War and the Indian Mutiny, informs me that during the eight years he was in the army he only got two months' leave of absence, except when he actually paid a civil Surgeon to do his work. All these just causes of complaint are bad enough; but worse remains behind. It is that of a positive breach of faith on the part of the authorities, in reference to the Warrant of 1858, upon the points of seniority, precedence, choice of quarters, presidency of boards of inquiry, allowances in the way of forage, etc. The fact is, that when the Warrant was issued, all these concessions were very enticing, and looked very nice on paper, but when they came into operation they were found not to work evenly, and, in short, were virtually cancelled by what amounted to nothing more nor less than breach of faith on the part of the Horse Guards. And now look at the recent device of making Acting Assistant-Surgeons; now, in profound peace! The authorities choke off promising men from the service by their previous want of faith, and then to improve matters have

recourse to this expedient at the expense of all, especially the junior officers, already in the service, condemning them, of course, to foreign service. In the present attitude of the rising generation of Medical men it is impossible but that these things must be set right before long and the just expectations of the Medical Profession satisfied, for if not it will assuredly be found that no well educated gentlemen will be induced to enter the army. It cannot be right that they should have to submit to all its changes and discipline, with but very few of its honours, and with so many just grievances. Happily, not even the worst enemy of the Medical Profession can say that its members are not patriotic as well as brave and enduring. As a class, I will venture to say none are more so. If one seeks a monument of those who fell in the Russian war he will find it in that Gothic cross now being erected at Netley, and recently inaugurated by the Prince of Wales. There he will view a tablet dedicated to the memory of no less than fifty-four Medical officers, who in their noble mission heroically sacrificed their lives. Amongst them are two past House-Surgeons of this Hospital, and they also include such men as Thompson, who, after the battle of the Alma, worn out by fatigue, paid with his life the penalty of heroic devotion to the performance of his duty; and O'Leary, who before Sebastopol, was cut in two by a cannon-ball. It would be as well here to warn the authorities that they must not reckon too much, as they profess to do, on the Medical Profession being overstocked, and that if a war were unhappily to break out they will again be able to secure the services of 200 or 300 volunteer Surgeons, for it must be borne in mind that whereas the number of Medical men under forty was 11,105 in 1851, in 1861 there were only 9910, and this notwithstanding the great general increase of population.

"Referring again to the proof of the manner in which a Medical man will conduct himself in the midst of danger and slaughter, perhaps no better instance can be found than the recent one of poor young Llewellyn, of the *Alabama*, who, rather than leave to their fate the wounded and shattered men under his charge, and escape, as he might have done, chose to tend them to the last and to sink with them. Again, only last year one of our own students, Mr. Chaffers, actuated by laudable motives, proceeded to the Southern States of America, and this is what we read of him in a recent impression of the *Memphis Daily Appeal*:—'We have heard frequent mention of this young Surgeon, who will carry back to England a scar in the face made by a Federal sabre at Shelbyville, and many are the gratefully eloquent eulogiums upon his skill from those whom the fortunes of war submitted to his knife. He is now Acting Chief Surgeon of Hume's cavalry division. Since his assignment to duty he has devoted himself to its discharge with an assiduity and untiring faithfulness which reflect the highest credit on him as a man, and with a skill which does honour to the ancient foundation which gave him his degree.' The last instances which I shall mention are to be found in last week's *Gazette*. Her Majesty has been graciously pleased to confer the Victoria Cross, in recognition of acts of distinguished bravery in the field, upon two Medical officers, one Assistant-Surgeon Temple, the other Assistant-Surgeon Manley, the latter, I am proud to say, a St. Thomas's student of my own year, and well known to many now present."

The subject of the future site of St. Thomas's Hospital was then commented upon, and a warm eulogium was passed on Mr. Baggallay, the ex-Treasurer, upon his resignation, followed by congratulations to his successor, Mr. Hicks, and cordial wishes that he might long live to watch over and to advance the future destiny of this noble institution. Alluding to the removal of the Hospital, Dr. Clapton said:—"Never did the force of circumstances act with such power and such persistent perversity as in the expulsion of this magnificent and most useful Hospital. It really seems as though in the present day nothing can withstand the attacks and inroads of a line of railway. In this iron age public good and works of charity must bow the neck to public gain and convenience, and the relief of suffering give way to the transmission of traffic. It is true that, as regards St. Thomas's, no direct attack was made; but by a cleverly contrived flank movement the same end was attained, and we were compelled to evacuate and retire to some other quarters; and now, if any one says we ought to have remained there, let him go and stand on the old site of the splendid north wing, with its 100 patients, and he will soon confess that the well-weighed predictions and fears of the Medical staff were not without foundation. . . . But anyhow the removal of the Hospital was but a question of time. Many obvious circumstances besides railway encroachments had long pointed to this necessity. Even as long ago as 1832 the question of the removal was under consideration. The Physicians and Surgeons at that time addressed a circular letter to the governors, and earnestly requested their attention as to whether the Hospital might not be rendered more extensively and efficiently useful by its removal to a more eligible situation than that which it then occupied; and ever since the same thing has been agitated in some way or other. I can only trust, as I confidently believe, that we are destined to see on the site of Stangate a Hospital unequalled for magnificence, position, and usefulness by any other extant."

He then went on to show that the present transitory condition of the Hospital happily in no way affected those gentlemen who were pursuing their studies in its Medical College, and attending the Hospital practice. He passed in review the facilities which were given for obtaining a sound practical as well as theoretical knowledge in every department of their Profession, and the general advantages in respect of prizes, scholarships, appointments, and the assistance of tutors in Medicine and arts.

In conclusion, Dr. Clapton said:— . . . "In your turn, gentlemen, strive to emulate the earnest zeal, the high attainments, the noble qualities of the many great and good men whose names and fame are associated with this our alma mater. Do not limit your ambition to success in practice—to that fleeting reputation which dies with its owner. Strive rather to leave the mark and impress of your work behind you;—if not in the field of science, in the hearts and memories of those whose confidence it has been your privilege to possess, and whose suffering it has been your mission to alleviate."

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

CASES OF PATIENTS INJURED AT THE EXPLOSION AT ERITH.

(Under the care of Mr. POLAND.)

We are indebted to Mr. Sydney Turner, Senior House-Surgeon to the Hospital, for a list and for the following account of the state of patients now in the Hospital, under the care of Mr. Poland, received from the late explosion at Erith.

Considering the proximity of most of them to the magazines at the time, it is most wonderful that far more severe injuries were not inflicted. The women and children were in bed at the time in three cottages which were completely demolished; and yet some one or two children have escaped with but slight contusions. The cottages were distant from the magazines about seventy yards. The man S. was on a barge loaded with chalk, as also was the man James E.

Elizabeth Y., aged 7, but slightly contused, and now convalescent.

Eliza O., aged 8, severe lacerated wounds on left side of face and chest, and arms much contused. When admitted was in a severe state of collapse, from which she has now somewhat rallied, but still remains in a very precarious state.

Dinah R., aged 6, contused wounds on face, back, and legs. Doing well.

Harriet R., aged 40, contused and lacerated wound of left shoulder, and contusion of face. Doing well.

Mary Y., aged 38, fracture at junction of middle and lower third of femur. Doing well.

Rebecca W., fracture of right clavicle, and contusion of right arm. Doing well.

Edward S., aged 24, fracture of left humerus. Doing well. Probably from the blow of a brick.

Elizabeth W., aged 13, compound fracture of right thigh, just below the trochanter major, with fearful laceration of all the muscles surrounding the joint. Scalp wounds over right orbit and over left temple. Admitted in a severe state of collapse, died ten minutes after.

James E., aged 38, fracture of the base of the skull, and contusions. Admitted with scalp wound over left temple, no fracture; hæmorrhage, and afterwards discharge of cerebro-spinal fluid from the right ear. Left pupil dilated, right contracted. Paralysis on both sides; skin hot and perspiring; breathing stertorous; pulse slow and labouring, afterwards becoming jerky and then quick and small. The left pupil

became less dilated before death; never conscious, and never spoke. Reflex act of deglutition imperfect, but still he was able to swallow. Paralysis of bladder, but fœces did not pass. Died 4 p.m. on Sunday. On post-mortem there was found great laceration of left anterior lobe of brain, but no fracture of calvarium. The base of the skull was found to be fractured by a line running from the inferior curved line of the occipital bone, through petrous portion of temporal line and great ala of sphenoid, on the right side, tearing through the membrane tympani.

Luigi L. was admitted on Sunday night, at 12.30 p.m., with a compound fracture of femur, just above the condyles, and severe laceration and contusion of all the soft parts below the knee. His own account was that, whilst getting into the train at Erith, he was pushed down between the platform and carriage, and that the wheel went over his right leg. He was almost pulseless and quite cold, but perfectly sensible. Mr. Churton, of Erith, was called to him, and he temporarily placed the leg on a back splint, to steady it, and immediately sent it here by the train. Mr. Durham saw him, and determined on amputation, but no persuasion could induce the patient to submit to the operation. He died at 1.15 a.m. on Monday.

Mr. and Mrs. Hall, the owners of the mills, have been very kind to the poor sufferers, bringing them grapes, &c.

CASES UNDER TREATMENT AT HOME.

The following brief report is kindly supplied to us by Mr. Churton, who, with Dr. Tipple, had charge of the wounded directly after the accident. They were the first on the ground after the explosion.

William Y., 6 years of age, now staying at the house of Captain M'Killop. A healthy, well-formed boy. Had various minor bruises. Both eyes closed. The right eye when opened was natural in every respect. The left eyelids were so much swollen that they could not be opened sufficiently to admit of the cornea being seen. On the right side of head, behind the parietal eminence, was a wound an inch and a half long, with something like broken bone sticking up in it. This having been found to run like a splinter beneath the scalp, was drawn out, and proved to be a piece of deal about two inches long and half the thickness of one's little finger. Another jagged end was now discovered, which from its position seemed to be a piece of the skull tilted up; but as it was easily sliced with a knife and found to be wood, it was seized with a forceps and gently extracted. It seemed to come from under the occipital bone and to have been directed towards the occipital spine. Its surface was greasy. It was as long and half as thick as one's forefinger. One or two distinct "gulps" of dark clotted blood followed. The boy was perfectly sensible both before and after these proceedings, and seemed to have been very little affected either by the entrance of the splinter or by its withdrawal. He had vomited, however, two or three times during the day. Wet lint was applied to the wound.

October 5.—He is still sensible, but rambles occasionally, and is very fretful. The wound gapes and is filled with coagula, etc.

6th.—He is better, and is still quite sensible, and does not ramble as he did yesterday.

John S., 11 years of age, was struck by a brick on the left side of his head. His mother plastered what she thought was a mere flesh wound, but at 10 p.m. of the same day he was seen by Dr. Tipple and myself, and then the parietal bone was found to be fractured near its centre; a circular area of an inch or more in diameter on the lower portion of the bone being entirely bare of periosteum and considerably depressed, so much so that it seemed scarcely possible but that the brain should be pressed upon; occasional vomiting, however, was the only symptom. He was perfectly sensible and easy.

To-day (October 5) he is the same; he has been rather feverish, but now is better. The wound discharges some thin watery stuff, but he looks no worse than might be expected. He can eat a little, and sleeps comfortably. Charcoal and linseed poultices are being applied.

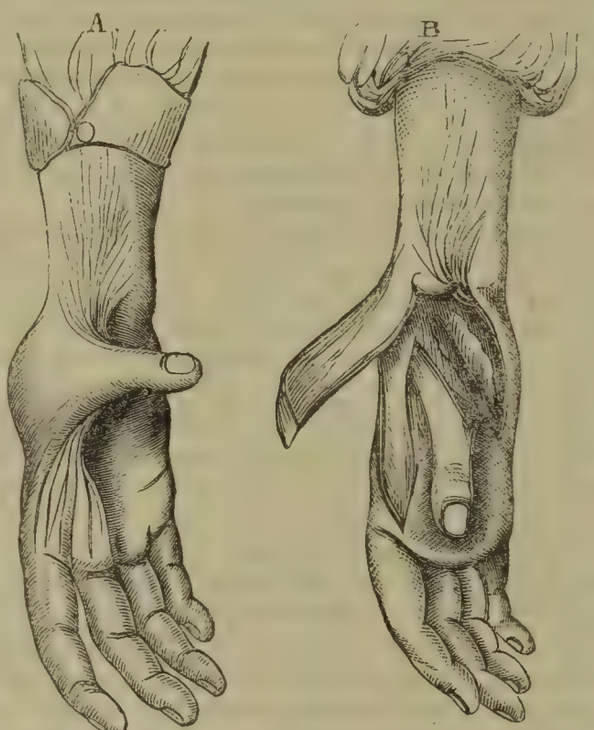
KING'S COLLEGE HOSPITAL.

CASE OF EXTREME AND DISABLING DEFORMITY OF THE THUMB OF THE RIGHT HAND FROM THE CONTRACTED CICATRIX OF A BURN—PLASTIC OPERATION—CURE.

(Under the care of Mr. WOOD.)

The importance of remedying so great a deformity as existed in the following case is obvious. Without a thumb—or, what is worse, with a thumb fixed in the position represented in the sketch A—a hand would be comparatively useless. The operation is but one of the many ingenious Surgical procedures for which Mr. Wood is so celebrated. To restore to usefulness a useless right hand is, if the patient be a working man, to preserve him from a life of poverty and distress:—

John O., aged 13, was admitted May 28, 1864. The right thumb was drawn upwards and inwards across the palm just below the wrist by a tough, hard, unyielding cicatrix, presenting a lunated border extending upwards along the lower third of the forearm (Fig. A). The metacarpal bone was dislocated from the trapezium, which projected in a rounded boss covered by thin and loose skin. The end of the thumb projected beyond the hypothenar eminence, effectually preventing the grasp of the fingers upon any object placed in the palm. The phalanges were immoveably bound down to the surface of the palm, and the ball of the thumb quite wasted and shrunken. About a year before, the cicatrix had been freely divided, and the palm kept upon a splint. As the incision granulated up, however, the contraction returned, in spite of all the efforts made to control it, and the deformity returned as bad as before.



On Saturday Mr. Wood performed a plastic operation by adjacent transplantation of skin. An oblique incision was first made across the cicatrix, and carried carefully through the deep-seated contracted muscular and other tissues nearly down to the bone, the thumb being, at the same time, put upon the stretch, and gradually placed parallel to the axis of the hand. An elliptical or tongue-shaped flap of skin was then dissected from the redundant skin placed over the projecting boss on the outside of the dorsum, having its apex near the front of the root of the forefinger, and its base, broad and thick, towards the wrist, and continuous with the palmar incision. This was dissected freely up until it could be turned into the incision upon the palm without much strain or twisting of the root (see Fig. B). It was then stitched by numerous points of suture to the edges of the palmar incision, into which it exactly fitted. The wound on the dorsum from which the flap was taken was left to heal by granulation, especial care being taken that no tension should be exercised upon the flap itself in any way. Warm water dressing was applied, and the hand put up loosely on a back splint well padded.

On removing the dressings two days afterwards, it was found that about one-fourth of the flap at the apex had sloughed. The remainder of the flap, however, and the open sore, looked healthy. The slough seemed to have been caused by the tenuity of the apex of the flap taken from the skin, which had been tightly stretched over the dorsum of the second metacarpal bone. After the separation of the slough the parts healed up rapidly, red granulations filling the dorsal wound, and cicatrisation rapidly closing in the slight angular space left by the slough. As this went on the contraction of the dorsal wound drew the thumb backward,

forcibly counteracting that of the cicatrix in front, which tended to bend the digit forward, while the base of the transplanted flap was drawn in more and more, to supply the deficiency caused by the slough, until at length the flap appeared to be even of larger size than that originally cut out.

This process of adjustment, which Mr. Wood considers a very important part of means by which deformity is removed by transplantation of adjacent integument, was favoured in every way by adapting the position of the hand upon the forearm so as to allow the complete relaxation of the integuments connected with the base of the flap. A well-padded splint was placed upon the palm and front of the arm as soon as the healing of the wound permitted. Twice a week the cicatrix was rubbed with oil, and the thumb and wrist well worked.

At the present time (four months after the operation) the boy wears no splint; can use the hand and thumb, and write with them as well as before the accident.

Fig. C is from a sketch recently made of the parts operated on. The lancet-shaped flap can be seen to intervene between the separated extremities of the hard, thick cicatrix covering an inch and three-quarters of the ball of the thumb. The transplanted portion of skin retains its hairy dorsal characters. For some time after the operation sensation was referred to the dorsum when the flap was touched without the patient seeing it. Latterly, however, experience has enabled him to correct this in great measure, and to refer the sensation to the new situation.

METROPOLITAN FREE HOSPITAL.

STATE OF A HAND THIRTY YEARS AFTER STRUMOUS NECROSIS OF PORTIONS OF PHALANGES.

(Under the care of Mr. HUTCHINSON.)

It is always of great interest to the practical Surgeon to ascertain the ultimate result of his cases. In not a few of the boasted triumphs of what is called Conservative Surgery it remains through a long period quite open to doubt whether the saved part will not, after the skill and patience lavished upon it, only prove in the end a lifelong incumbrance to its possessor. This is often especially the case in strumous disease, in which, since the malady is constitutional, the progress is often very slow. The strumous necrosis of bones of the fingers, for instance, so often seen in children, and so often lasting over such long periods:—in these cases very often the Surgeon has to ask himself whether it would not be better to remove the affected part altogether. The case we are about to mention is one in which the necrosis must have been unusually extensive, and no doubt the question as to amputation must have often been raised. The disease occupied ten years before the parts were sound. Now, although amputation might undoubtedly have shortened the duration of the disease, yet we must note that patient waiting has saved parts which are now very useful. Nor does the long-continued local disease appear to have prejudiced the patient's general health, for he—the quondam type, in all probability, of a delicate "strumous" child—is now a robust labourer.

The case also has other points of interest. It shows that what is vaunted as Conservative Surgery is not of such modern origin as is sometimes thought. It illustrates also in a very interesting manner the influence of the epiphyses of long bones in restricting the advance of necrosis.

Robert C., now a healthy labourer, aged 35, states that he was under Sir Astley Cooper's care when a boy of four years old, on account of strumous disease of the bones of both his forefingers. He states that he had many fragments of bone removed, and that he had abscesses in his forearm. It was nearly ten years before the parts were soundly healed. He had abscesses above his elbow and in the glands of his neck. At present he has scars on both hands, in various parts of his left forearm, just above his left elbow, and also in the side of his neck. His appearance is that of a robust man, and he states that since his hands got well he has never ailed anything.

The condition of his two forefingers is most interesting. His right forefinger is about half an inch shortened, and presents a deep, puckered scar adherent to bone on its outer side over the middle phalanx. This middle phalanx is shortened to about half an inch in length, owing evidently to exfoliation of the middle of the bone; both its joints are perfect, and the finger, excepting as regards the shortening, is as useful as ever. His left forefinger is much more deformed. It is shortened to the length of about an inch and a-half in extreme length from knuckle-joint to the end. The shortening is due to removal of almost the whole of the first phalanx and of the lower two-thirds of the second phalanx. Thus, the terminal phalanx is brought almost to the knuckle. There is a puckered scar adherent to bone, but there is remarkably little nodosity from excess of skin. He can flex this stump of a finger with great force, and it is of great use in widening the surface of his palm. When he opposes the thumb it is, however, to the middle finger, as the forefinger is too short. The proximal end of the first phalanx, in articulation with the metacarpal bone, is of full size; its outlines can be easily felt. There is non-union between this epiphysis and that of the second phalanx, and this false joint takes the place of the normal joint between first and middle phalanges, which of course is, together with the ends of the bones composing it, wholly lost. It must be remembered that these ends (*i.e.*, the distal extremity of first phalanx and proximal one of the second) have no epiphyses, thus explaining the fact that they have been involved in necrosis. The disease was evidently stopped at the epiphysal union of the first phalanx.

THE LONDON HOSPITAL.

NOTES ON CASES OF POISONING.

[Communicated by Dr. Bathurst Woodman, Resident Medical Officer.]

It is almost certain that the popular "repertoire" of poisons for self-destruction or murder is becoming more extensive. Within the last six months there have been admitted cases of poisoning by the following substances:—Liquid ammonia, acetate of lead, bichloride of mercury, belladonna, oxalic acid, phosphorus, perchloride of iron, salts of sorrel, white precipitate, red precipitate, creosote, and opium. Of these only the first on the list was taken accidentally. The following brief notes may perhaps be of interest:—

Poisoning by Liq. Ammoniæ Fort.

Jane McC., aged 18, a fine, healthy girl, just about to be married, took by mistake about an ounce of the strongest liquid ammonia, which had been given her by a photographer for another purpose. It produced instant vomiting, which her friends encouraged by giving her an emetic. Four hours after she was brought here with the following symptoms:—Her tongue was red at tip, partly stripped of its epithelium, and whitened in patches. The lips, tonsils, and as much as could be seen of the pharynx, resembled the tongue. Her face was flushed, the pupils dilated. She complained of intense frontal and vertical headache, and burning pain in the throat and stomach. The glands of the neck were swollen and tender. Her pulse was small, quick, and compressible. There was great tendency to syncope. I gave her at once four ounces of distilled vinegar well diluted, and afterwards milk, eggs, and oil. Her bowels became rather constipated, the urine scanty, dark coloured, and concentrated (acid), and the headache and sore-throat, as well as the enlargement of the glands, continued for four days. She was then ordered dilute nitro-muriatic acid, and a chlorine gargle. Discharged convalescent on the sixth day.

Poisoning by White Precipitate.

Cases frequently occur in which one or two drachms of this substance are taken for suicidal purposes. Beyond slight gastric uneasiness, caused, perhaps, by mental apprehension, no particular symptoms occur. Indeed, now, we seldom admit these cases as "in-patients," but give them an emetic and send them home, or to the police-station.

Poisoning by a Belladonna Liniment. Treated by Opium—Calabar Bean to the eyes.

Mary Ann M., aged 21, single, admitted under care of Dr. Fraser. She had swallowed about half an ounce of a very thick liquid, which was intended for external application, and was, I believe, extract of belladonna rubbed down with water, and perhaps a little glycerine. It gave out a strong odour of belladonna on the addition of liquor potassæ, and caused dilatation of my own pupils. She was brought here

in about an hour. Her face and neck were deep scarlet, like scarlatinal eruption, but the trunk and extremities were not so at all. The face was very hot, whilst the limbs were cold. She had the faintest possible ring of iris visible in each eye. There was extreme tendency to syncope, but no delirium.

Given a zinc emetic at once, which brought away a good deal of similar coloured fluid with same smell. She was then given mxx of laudanum and some brandy. This dose was repeated six hours after, and the effect on the pupils was very soon conspicuous. In twenty-four hours they had nearly regained their normal size, but six hours after that they were again widely dilated, and the other symptoms recurred. She also suffered from vertigo, supra-orbital pains, and very slight soreness of throat. At the end of four days the pupils were still dilated, and there was paralysis of accommodation. To relieve this, glycerine extract of Calabar bean was applied to both eyes, and I made a simultaneous experiment on my own. In ten minutes my pupils were visibly contracted. Hers took twenty minutes to show a similar effect. In an hour both of us were under the full effect, and this lasted perceptibly for twelve hours. One repetition was needed in the above case, and after this she felt no more inconvenience, and left on the sixth day, quite cured.

Two Cases of Poisoning by Phosphorus Paste—Recovery.

Two married women, in Bethnal-green, one aged 19, the other 26, agreed to commit suicide by eating phosphorus paste (used to destroy vermin). They ate a penny box between them, at the suggestion of an old woman. They were brought here in less than an hour. In both the breath smelt very strongly of phosphorus, and was slightly luminous; in the younger the odour was very strong, even on the third day. Both complained of a hot burning taste in the mouth, and a similar feeling in the stomach. The tongue, in both, was intensely red, bare of epithelium, and the papillæ strongly prominent. Both had urticaria, in the younger much resembling measles, in the elder more raised, crimson, and less crescentic. This patient had hæmatemesis for seven days, with violent vomiting, and intense thirst. She also manifested all day long a strong disposition to sleep. These symptoms were all shared by the younger, though in a less degree. Emetics at first, and afterwards a mixture of carbonate of soda and mucilage, with bland fluids was the treatment adopted.

Both were convalescent in ten days.

Poisoning by Oxalic Acid—Recovery after taking Half an Ounce.

I record this case partly for the sake of entering a strong protest against the use of the stomach-pump in poisoning by this acid, or any other "corrosive," a useless and dangerous proceeding, which (although not done in this instance) is, I find, a common practice amongst Medical men. The stomach in these cases never, I believe, refuses to respond to the stimulus of emetics, should these be thought necessary; but I feel convinced, that if taken in time, chalk mixture is a perfectly sufficient antidote to this powerful poison. In the present case a married woman took, knowingly, half an ounce of crystallised oxalic acid. She was brought here in about an hour. Her tongue and fauces were whitened, as if they had been boiled; she complained of intense pain in the throat and stomach, and had a small, rapid, feeble pulse (like that of abdominal collapse). She was treated with large doses of chalk mixture. Next day she complained of intense lumbar pain and also pain after food; she had slight vomiting of blood. For more than a week her urine was loaded with enormous crystals of oxalate of lime, a single drop on a glass slide yielded hundreds of crystals, together with blood-discs. Some of these crystals were quite one-fiftieth of an inch in diameter, which may, perhaps, account for the intense pain in the region of the kidneys. A similar condition of urine is, I believe, always to be found on the second or third day; and in cases of suspected murder it would, perhaps, be well to examine the bladder, as no other cases ever yield so many crystals, and of so large a size, to the best of my belief.

She recovered perfectly in ten days.

CONGENITAL STRICTURE OF THE RECTUM—TREATMENT BY INCISIONS AND BY DILATATION.

(Under the care of Mr. CURLING.)

[Reported by Mr. J. R. B. Dove.]

The following case well shows the difficulties which often attend the treatment of congenital contractions of the rectum, and the need for long-continued use of bougies after operations for their relief. In several operations for imperforate anus recently performed at the London Hospital we have noticed the great care with which the Surgeon has brought down the healthy mucous membrane from above the contraction, and secured it by sutures to the anal integuments. This obtains a mucous lining for the whole of the tract, and presents that risk of subsequent contraction which must always exist, if any part of the canal consist of cicatrix:—

Louisa B., aged nearly two years, a feeble child, was brought, on July 17, 1863, for difficult and painful defecation. Her mother said that, soon after the birth of the child, it was discovered that there was scarcely any passage for the motions; their aperture of exit, though at the natural site, being reduced to the size of a mere pin-hole. After the most violent straining and pain, the child would only succeed in passing a portion of fæces, the size of a pea. When two days old a Surgeon at another Hospital performed an operation for the relief of these symptoms, and bougies were passed daily for the first fortnight, and occasionally for some time after. The symptoms were at first much relieved, but, in consequence of the mother's failing to attend regularly with the child, a gradual relapse took place, and now the child has almost as much difficulty and straining at defecation as she had at first. To mitigate this, she is having aperients administered to her daily. The poor child is thus obliged either to suffer all the ill effects of constipation, the contamination of the blood by the absorption of noxious gases and decomposing matters from the alimentary canal, and its impoverishment by the stagnation of healthy absorption and assimilation, as well as the irritation of the nervous system caused by the retention of feculent matter in the intestines, the distension of the abdomen, and the daily torment of painful defecation, or else be subjected to the exhaustive effects of a continual artificial diarrhœa.

Mr. Curling found a stricture, which would barely admit the tip of his little finger, at about an inch from the external opening. The child having been placed under the influence of chloroform, Mr. Curling, with a probe-pointed bistoury, divided the stricture in several places, cutting towards the sacrum. A No. 3 rectum bougie could then be passed easily. A little bleeding followed, which soon stopped. The mother was directed to give the child beef-tea and other nourishing liquid support, to let her, for the present, abstain from solid food, and to give her a teaspoonful of castor oil every night.

July 21.—The child was again brought to see Mr. Curling. There was a very slight discharge of pus from the rectum. Although defecation is still painful, the motions pass much more easily than before, and the abdomen has become less tumid. The mother exhibited to Mr. Curling with the greatest satisfaction two large buttons and three date-stones, which had been passed per rectum since the child had been under his treatment. A No. 3 bougie is to be passed daily, and kept in for about five minutes. The diet and oil to be continued as before.

The child was not brought again to the Hospital till October 26, but Mr. Dove visited her almost every day, and passed the bougie. She greatly improved in health during this period; her appetite became better; her complexion lost its muddy hue; the cheeks regained their colour; and the muscles their firmness, and the child lost the "afflicted" expression so marked in painful affections of the rectum. She had gradually returned to solid food, and the castor oil had been reduced in quantity, and was only given when required. The stricture, however, was still very firm. The frequent passing of the instrument had prevented any great contraction, but on introducing the finger a firm band could be felt round the intestine, and if the passing of the bougie be omitted for one day only its next introduction is attended with increased difficulty.

October 26.—Under the circumstances above detailed, Mr. Curling resolved to use forcible dilatation, and for this purpose Weiss's dilator was introduced, and the stricture carefully and gradually stretched, till the point of the forefinger could be passed through it. The rectum bled slightly.

27th.—Mr. Dove called to see the child. The operation has caused no marked constitutional disturbance.

October 29 to November 3.—No. 4 bougie passed every day except one. A little pus exuded on passing the instrument for the first few days after the application of the dilator.

Since the last date bougies have been continued with tolerable regularity.

April 18.—The child's mother says that her general health is now better than she ever knew it; she is much grown since first coming under treatment, and is stouter and stronger. The forefinger can now be passed through the stricture easily, but

the stricture is still plainly to be felt. She now has scarcely any trouble in passing her motions. Castor oil is given her occasionally, and the bougie (No. 6) is passed daily by her mother.

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Medical Times and Gazette.

SATURDAY, OCTOBER 8.

THE LAW AND THE QUACKS.

When Medical men differ in their interpretation of some of the most intricate and obscure questions respecting soundness or unsoundness of mind, of course they are visited with the supreme contempt of the Bench, the Bar, and the Press; and some amiable law lord even proposes to exclude their testimony altogether, or to put it on the same level as that of unskilled witnesses. We will leave it to the candour of the Lord Chancellor to say what he thinks of lawyers who draw up an Act of Parliament susceptible of half-a-dozen discordant qualifications, and of magistrates who come to opposite decisions on the same clause. We may add, what is to be thought of the administration of law in London, where one magistrate one week convicts an offender against a given clause of an Act, and the next week reverses his conviction; whilst another magistrate one week acquits and next week condemns an offender against the very same clause?

We will ask our readers just to consider the judgments of Mr. Tyrwhitt and Mr. Paget, which we put side by side. On referring to the *Medical Times*, September 24, page 332, it will be seen that Mr. Paget acquitted Fentiman, the chemist, of any offence in using the title *Surgeon*, on grounds of *law*. At the second hearing he convicted him, on grounds of *public utility*.

Mr. Tyrwhitt began by convicting Bearnard, the chiropodist, for unlawfully calling himself *Surgeon*, and he rested his conviction on grounds of *public utility*. Why he quashed the conviction does not appear. Mr. Tyrwhitt does not seem to shine by the quality of self-assertion, or force, or decision; he lets us see that though he quashes the conviction, yet that the law is against the defendant.

Mr. Tyrwhitt's Conviction.

"Mr. Tyrwhitt said: I have considered this case, and it appears to me that 'Surgeon,' though prefixed to 'Chiropodist,' cannot be treated as mere surplusage, but must have a meaning. *That meaning must be measured, not in the narrow sense in which knowing Londoners, experienced in vain pretension, and in the steps of Medical rank, might take it, but by the general acceptation which the great body of mankind, passing the defendant's door-plate, would ascribe to the words used there.* I think, on the whole, that these words would convey to them that a Surgeon, duly qualified and registered as such, practised at the house in question as a Chiropodist. *Taken to be such a Surgeon, he would command more confidence* with those who sought his aid as a Chiropodist; and not only that, but he might naturally be consulted by them in Surgical matters beyond the mere treatment of corns. We must allow something for the craving after small titles which is so widely spread at present. The corn-cutter is restless until he writes 'Chiropodist,' and next, from fear of so much Greek not being understood, dubs himself Surgeon at all hazards. On the whole, if the defendant will remove from his door-plate and cards the word 'Surgeon,' I might consider as to mitigating the penalty, which is £20, and in that hope would adjourn my decision till this day week. But if the defendant requests me to grant a case for the opinion of a superior court I will do so. In that case it will be needless to adjourn the case, and I fine him £20.

Mr. Paget's Conviction.

"Mr. Paget was of opinion that the *object of the Legislature in passing the Medical Act was to favour and protect the public. A country gentleman or lady arriving in London and meeting with an accident, or being attacked with sudden illness, seeing the word 'Surgeon' on a man's door* or on his printed bills, might be misled if the party calling himself a Surgeon was not one, and be improperly treated. The object of the Legislature was to ensure the attention of properly educated Medical Practitioners to the afflicted.

"The defendant said he had received a Medical education, but he had not been able to afford the expense of diplomas. He had actually sent accidents brought to his shop to Dr. Wills.

"Mr. Paget: You must not prescribe.

"The defendant: I will not, sir. I have had the word 'Surgeon' removed from my bills and advertisements. I will give any security I won't offend again; but I had practised so many years without being interfered with that I did not know that I was doing wrong in calling myself 'Surgeon.'

"Mr. Paget said he would keep the case still pending. He would not inflict any penalty, on the understanding that the defendant did not offend again, or use any name, title, addition, or description implying that he was registered under the Act. He adjourned the case for one month.

"Mr. Rigby hoped the magistrate would give his decision at once.

"Mr. Paget: I decide the defendant is guilty of an offence under the Act of Parliament.

"After some conversation the case was adjourned until November 10."

It is very evident from reading these quotations, that magistrates are governed in their decisions by something besides the letter of the law; and what is this? Why, undoubtedly the force called *public opinion*. It is to the reporters' gallery that the magistrates look, quite as much as to Acts of Parliament or cases recorded in the "Reports." It is of no use for a private Practitioner or a country solicitor to come forward unaided. The magistrates ought to see that some public body which commands respect, some Corporation or influential Association, interests itself in these proceedings; and that they are based not on private interests merely, but on the public good. They should be conducted also by counsel accustomed to the strife of tongues.

Where are we to look for such help? The Colleges and Medical Council are dumb; the British Association penniless; and that voluntary association, known under the name of the Protection Society, has, if we are not misinformed, left its own officers in debt for its own operations.

THE WEEK.

EPIDEMICS AND OVERCROWDING.

The *Times* of Wednesday publishes a letter from "A Herts Vicar," which contains a telling illustration of the great principle recognised alike by contagionists and non-contagionists, that the crowding of human beings in narrow limits with deficient ventilation, let them be as well fed and cared for in other respects as we please, is certain, sooner or later, to result in epidemic disease. We are not of those who believe that it will give rise to every epidemic pestilence—for instance, to small-pox, scarlatina, and measles. We hold that the germs of these diseases—chemical or organic—must be introduced from without. But let them once be imported into a district where numbers of people are crammed together into close unaired dwelling-houses, and their spread and increase is certain. There is but one disease—typhus fever—

which seems to be generated *de novo* by overcrowding; but if this be produced all the others are propagated by the same condition. The "Herts Vicar" gives an account of his parish, where a population, amongst whom work is plentiful, who are well fed and rapidly increasing, have been decimated by measles and scarlatina, which during the last nine months have raised the annual death rate from 16 to 80 in 1000. He writes:—

"The real cause of the spread as well as the fatal effects of these diseases is to be found in the overcrowding of the dwellings of the poor. The natural consequence of such overcrowding is, that the poor occupants are compelled, for several hours together, to breathe a most fœtid and unwholesome atmosphere, whereby it would seem the undeveloped frames of the young are rendered unable to cope with disease of more than ordinary violence, and which in the case even of adults would be most disastrous, were it not that they are invigorated by their occupation leading them to spend many hours in the open fields.

"And such, in fact, is our own state. While the population has increased, house-room has not increased in the same proportion; so that not only have we in many instances two families occupying one cottage, but, many of the cottages having but one bedroom, we have parents, grown-up sons, and daughters, as well as young children, occupying the same sleeping apartment—an apartment, be it understood, in too many instances barely large enough for the healthful occupation of a fourth part of the number usually found sleeping in it, and with a window, perhaps, opening to the extent of 24 in. by 14 in. Well, therefore, might an intelligent labourer declare to me that should he at any time have occasion to return to his bedroom before leaving home in the morning, after quitting it for a few minutes, he found the smell 'almost enough to knock him down.' It is, then, in this overcrowding that we must look for the cause of this fearful rate of mortality on the recurrence of epidemic disease. But the greatest difficulty remains behind—how shall we apply the remedy?"

The remedy he proposes is "a wise, well-ordered, and generous system of emigration." A preferable one, we think, would be Government interference to compel landed proprietors and local authorities to provide dwelling houses in proportion to the number and wants of the population.

YELLOW FEVER AND MEDICAL DEVOTION.

We had the great pleasure of recording last week that the Victoria Cross had been conferred upon two members of the Army Medical Department for their personal valour in the war in New Zealand. We have now to direct attention to the lamentable loss of life in the same department in the deadly conflict with the epidemic disease prevailing at Bermuda. These lives have been as plainly sacrificed to devotion and duty as if they had been taken by the bullet of the enemy. By the Army List for the present month we learn that the following Medical officers have fallen victims to yellow fever:—Surgeon-Major Franklin, Surgeon Clarke, 15th Regiment; Assistant-Surgeons Lodge, 2nd Regiment; Milroy, 30th Regiment; and Youell, of the Medical Staff. We wish that we could affirm that this list was all, but we fear that it is not. From a letter to the *Standard* of the 3rd inst. we extract the following:—

"I can assert that the news I received by the last mail (which left there on the 2nd inst.) was anything but reassuring. I copy the following from the only civilian Medical Practitioner in St. George's. He says:—'Yellow fever is now raging here to a fearful extent, and I am completely worn out. One Doctor died yesterday, and eight are now down on their backs. These men were sent from Halifax to assist in the epidemic—are Army Doctors.'

"I have likewise since been informed upon reliable authority that, in addition to the above, four of the Army Assistant-Surgeons have succumbed to the disease."

We almost wish that we had the power to ship off every official at the Horse Guards—from the Duke downwards—to Bermuda, and consign them to the tender care of Acting Assistant and Veterinary Surgeons. Now, we are not saying that these brave, devoted, and unfortunate men have done more than their duty; but we may fairly challenge the authorities to show that they have done theirs. It is all very well to talk about combatants and non-combatants. We venture to say that most combatant officers would much sooner form part of a storming-party than face the horrors of this pestilence. Every one knows how far the Army Medical Officer has displayed courage in the field; the number of Victoria crosses is the proof of that. It is iniquitous that a body of brave, patriotic, and able men should meet with so little consideration from the Horse Guards. We learn from the *Court Journal*, indeed, that the Duke of Cambridge plumes himself upon the firmness he has shown in resisting the demands of the Medical Department, although these Medical officers only ask for what is due to them as gentlemen and men of education. We are heartily glad to perceive that the condition of our Profession in the public services has not been lost sight of in the introductory lectures. We cordially commend Dr. Clapton for the courage and ability with which he has spoken. His remarks, towards the conclusion of his admirable introductory lecture at St. Thomas's Hospital, are well worthy of the consideration of the present Government. As he pithily puts it, the fundamental evil is "that the Medical Department was, as it were, between two enemies—the Horse Guards and the Treasury." He might have added—with the direction of that department in the hands of a *protegé* of the Horse Guards. The course to be adopted is very plain. According to the time-honoured policy of the Horse Guards, nothing will be granted beyond what is wrung from them—small concessions, and slowly made. So long as the vacancies can be filled up—no matter how—so long will there be no improvement. We know that a great many men appeared at the last examination, because they thought they perceived the advent of a radical change. No more suicidal course could have been adopted. With the marked improvement which has taken place of late years in Medical education; with the increased requirements in general knowledge, the men who now enter the Profession are infinitely superior to the standard of a few years ago. It is no longer possible for a man to become a "Doctor" unless he has received the education of a gentleman, and possesses the qualities and capacities of one. While the quality of young Medical men has so improved, there has not been a commensurate increase in the quantity. It will be hard, therefore, if the Profession tolerate the traditional policy of the Horse Guards, and quietly submit to a feudal kind of *régime*.

LONDON NOISES.

Dr. Aldis has earned the thanks of the nervous, studious, and sickly part of the community by calling attention to the number of noises which disturb the sleep of Londoners, and if he does nothing else, he will give his readers the benefit of a healthy laugh by the facetious style in which he depicts other people's miseries. It seems that he has been appealed to, as Medical Officer of Health for an important district, to protect the inhabitants.

"If a neighbour keep fowls, which may crow at any hour of the night; if another should do the same, or a third let a Newfoundland dog loose in his yard to bark throughout the night; a fourth keep a kicking horse in the adjoining stable, and a fifth a bellowing cow, it may readily be believed that such nuisances would so disturb the rest of those persons who sleep in the back rooms of houses, as to interfere with their health, and that they would be likely to complain to the Medical Officer of Health."

The greatest nuisance of all, however, appears to be the "unearthly crow of Cochin-China fowls." "They will often begin crowing in the darkest night, say about eleven o'clock, when roused by the barking of a dog, or a railway whistle; and in cases of illness they become positively injurious. Let a patient take an opiate when sleep is of vital importance to his recovery, and be suddenly awoke by the crowing of a cock, delirium might ensue; and this I have known to happen." A kicking horse is an equal nuisance, especially when confined

in a stable abutting on the back wing of a house, through every wall of which the vibrations make themselves heard and felt. A gentleman, who was the victim of such a nuisance, says Dr. Aldis, "trudged off to see the animal, and told the groom the purport of his visit. 'Quite true,' said the groom, 'he makes a great noise, on account of which he is called "a scraper." He belongs to Colonel ——, and he wakes me up at four in the morning when he wants his breakfast, and will not cease making a noise until I give it to him.' The Colonel is applied to, who, being a gentleman, writes that absence from town has prevented his calling, and regrets the annoyance caused by the horse; but he has directed the groom to try all he can to prevent its recurrence, and should this fail, he will sell the horse. A generous colonel this, and full of sympathy, who not only makes a promise, but fulfils it. Scraper's irritable leg is put under mild restraint, the stall is partially padded, and a kind of shoe fitted to the hoof. But Scraper, too cunning to be controlled, managed to destroy all the padding, so that the noise became again intolerable. At length, the Colonel, finding there was no remedy, sold Scraper to a Medical man, whose brougham he soon smashed, probably not liking a new driver, who, perhaps, would not rise at four o'clock in the morning to give him his breakfast." Perhaps the most facetieous part of the learned Doctor's pamphlet is an account of a County Court trial at Croydon, where the real defendant was a Cochin-China cock, three feet high, which crowed forty times in a quarter of an hour, beginning at a quarter past three a.m.

Whilst we are as desirous as anybody that studious and delicate persons should be exempt from horrid grindings and brayings, we are all the more solicitous to promote street music of a higher order, such as is afforded by some excellent bands of wind and string instruments to be met with at the West-end. Moreover, we have a bit of advice to give to some of the complainants against street noises. Strong people don't complain. Your sleek, well-fed, rosy-gilled mortal is not hurt by noise; he does not believe in it, and sleeps like a top. It is your over-studious and under-fed people—the pale, nervous, and irritable—who make these complaints. And we would suggest to them that it would be more for their own benefit to make themselves a little less irritable than to besiege Parliament and the newspapers with complaints about noise. Perhaps if these over-sensitive people rose a little earlier, did their work by daylight, ate a better dinner, and spent an evening in recreation and not in study, they would sleep better. If we had to prescribe for such cases, we should recommend the patient to take a roast partridge and half-a-pint of Burgundy *plus* his ordinary dinner; to go without tea, and drink instead of it a glass of toast-and-water, if he is thirsty; or if he has made a poor dinner, to wind up at night with a coffee-cupful of good soup, three fingers of bread, and a thimbleful of Cognac. A *régime* of this sort would make him wonderfully more tolerant of noise, and we suspect also of smoky chimneys and some other domestic annoyances that are usually classified therewith.

FROM ABROAD.—TRANSMISSION OF SYPHILIS TO ANIMALS—RETIREMENT OF M. TROUSSEAU FROM THE PROFESSORSHIP OF CLINICAL MEDICINE.

THE question of the transmissibility of syphilis to the lower animals has again been revived at the Academy of Medicine. M. Auzias-Turenne, who has long advocated the reality of this, affirms again, in a letter to the Academy of Medicine, that he has for several years past on many occasions communicated syphilitic disease to animals, as also has Professor Sigmund, of Vienna. The most susceptible of these animals is the ape, which may contract all the varieties of chancre as well as the constitutional affection. M. Vernois gave an account of a cat which was accustomed to eat charpie saturated with the pus of syphilitic ulcerations. The animal fell into a state of complete emaciation, and having been killed and examined, its throat was found to be completely ulcerated, while all the bones exhibited exostoses absolutely similar to those met with in syphilitic patients dying cachectic without having taken mercury. With respect to this extraordinary cat, M. Ricord observed that, although it was said to frequent his wards, he had not himself seen it, and therefore could say nothing as to the exactitude of the observation; but when it is stated that it exhibited ulcers of the throat and exostoses without any intervening effects, it is obvious that such is not the ordinary course of syphilis. At all events, during the twenty-seven years which have since elapsed no such a cat has ever been met with in these wards. As to the question of transmission of syphilis to animals by inoculation, M. Ricord has never yet seen a satisfactory result in any experiments that have been made. Pus taken from a soft chancre has given rise to a soft chancre in the ape, but this was unattended by any ganglionary enlargement or extension. As far as our experience goes, then, syphilis is the appanage of man. It is the man pox. M. Velpeau referred to experiments long since performed by himself and Bretonneau, simple ulcers alone being produced, and secondary symptoms never resulting. If this were not so, indeed, the disease would long since have been met with in the lower animals, while we have only M. Vernois' solitary cat, which, destitute of details as the case is, is not worthy of serious attention. M. Bouley stated that all the experiments he has made or witnessed resulted in only slight, superficial, transitory ulcerations, which produced discharges not transmissible by inoculation. The numerous experiments of another eminent veterinarian, also, M. Leblanc, have all been followed by negative results.

Our readers will recollect that M. Trousseau, the eminent Professor of Clinical Medicine at the Hôtel Dieu last year, expressed his wish to retire from his chair. This does not seem such an easy operation as might be thought, for not only did the pupils warmly oppose it, but the authorities would not sanction it. The matter, however, according to a letter addressed by M. Trousseau to M. Latour, seems finally to be arranged by a permutation of chairs.

"My Dear Friend,—The *Moniteur* has published my permutation. After having been twelve years Professor of Clinical Medicine, I return to my chair of therapeutics; and I wish to make known the reasons of this change. Last year I wished to make good my right to retire. I was desirous of giving up teaching, and continue some years yet in the pursuit of the practice of Medicine. The Minister refused his consent, and although I might have appealed to the Council of State, inasmuch as I have rendered thirty-two years of service, and am 62 years of age, I consented to continue teaching clinical Medicine for another year. Now, my dear friend, the extreme facility I possess in addressing the pupils and the clearness of expression that have been attributed to me, may be, perhaps, natural gifts, but they have also been purchased by great labour. Every morning I am at work by 6 o'clock, and half my evenings are similarly employed, for I take my clinical teaching as a serious duty, and I endeavour to keep myself up with the current of every new idea. Such labour has, however, damaged my eyes, and I cannot continue it longer without great danger to my sight. I, therefore, again applied through the Dean to the Minister for permission to retire, being resolved to appeal to the Council if again refused. The Dean and some of my colleagues have expressed their extreme regret at my giving up teaching, while I have lost none of my popularity with the pupils; and as the retirement of M. Rostan leaves a chair vacant, which M. Grisolle, the present Professor of Therapeutics, will be called upon to fill, his chair of therapeutics becoming consequently at liberty, they have, with the concurrence of the Minister, requested me, rather than leave the Faculty, to accept this professorship, which I formerly held with some success for fifteen years, and which will entail upon me less labour. I have consented, and consequently remain at the Hôtel Dieu; and I hope to be able to employ some years of a green old age which may still be accorded to me in teaching that which may not be without its utility to the students of our school. I should have much rather preferred repose, for I have well earned it; but I have felt it right to yield to the wishes of our dean, who is a dear friend of mine and of my colleagues."

MEETING OF THE BRITISH ASSOCIATION

FOR THE

ADVANCEMENT OF SCIENCE.

SPECIAL MEDICAL REPORT.

(Concluded from page 369.)

SECTION OF ECONOMIC SCIENCE AND STATISTICS.

W. Farr, M.D., F.R.S., President.

The Section of Economic Science and Statistics, Section E, is usually assisted to a great extent by the labours of Medical men. It is a sort of public health section; and, although it is less attractive and less brilliant than the physiological, it counts well in respect to numbers. On the present occasion some valuable Medical papers were read, of which we give an abstract.

THE PRESIDENT'S ADDRESS.

By William Farr, M.D., F.R.S.

Dr. Farr defined statistics as in their nature the science of the relations of numbers of men. The laws of the science are founded on the observations of mankind. There are two grand divisions of statistics; the first falling under the head of Population, and the second under the head of Property, which is the subject also of Economic Science. Under Population are discussed the races, sexes, ages, marriages, births, deaths, causes of death, the ranks, professions, and tenures of each people in a state; from their earnings the value of their life-work is deduced; certain acts are also investigated, such as baptisms, attendances at schools or at churches, votes at elections, crimes, punishments, diseases, and civil actions. Civil and military statistics constitute a capital chapter of this division. The statistics of Property are divisible into two heads: first, those of the fixed property, including land, mines, forests, manufactories, houses, roads, canals, and rivers; the basis is a map on a scale large enough to exhibit the quantities of every parcel of land, and the area of every dwelling-house. The holdings of land, its burthens, and transfers naturally fall under this head. Under the second head falls also moveable property, including live-stock, ships, machines, goods, merchandise, and vendible products of all kinds. A due appreciation of the value of published facts is an element in all the sciences. Statistical science is prosecuted, to some extent, in every state; and in countries where observation is difficult, intelligence scarce, and facts fugitive, figures appear to be so essential that they are invented. It is evident that the statistics of Bath, for instance, which has 53,528 inhabitants, are, at least, as instructive as the statistics of Hesse Homburg, which has a population of only 26,817; while those of the 444,873 people of Somerset, the county in which we meet, are not a whit less interesting than those of, at least, 24 kingdoms and principalities in Germany, which fill the pages of that useful publication, the Gotha Almanack. What statisticians want is a better co-ordination of their work, which might be accomplished by a Board at which the principal offices would be represented. The President went on to observe that a matter this Association might very properly urge would be Agricultural Statistics. By these we might learn, approximately, in September, the produce of the harvest in Europe as well as in America, and the state of the live-stock to supply the markets. The present season has been extraordinary. What have been its effects upon the crops? Unfortunately the Government has nothing to tell us. English agricultural statistics are a complete blank; yet no one seriously doubts the utility of this question of the supply of food. It will enter largely into the commercial combinations of the next twelve months, and is one of the elements affecting the circulation. After discussing these points, Dr. Farr dwelt on the choice of units of weights and measures, and supported with great ability the views on this subject which he has so long and now almost successfully vindicated.

PAPERS.

On the Rates of Mortality and Marriage Amongst Europeans in India.

By Samuel Brown, F.R.S.

In a paper which I had the honour of reading before the Institute of Actuaries, in December, 1862, an inquiry was made into the rates of mortality and marriage amongst the Europeans in India, but was principally confined to the experience amongst military officers, as recorded in the books of the Madras Military Fund, and compared with the records of similar funds in the other presidencies. The data extended over the long period of fifty years, from 1808 to 1857, and related to more than 5000 officers, who had entered the fund in that period, and had either died or withdrawn, or were living at the close of the observations on the 1st January, 1858. The subdivision of the facts into two periods, of those who entered from 1808 to 1822, and from 1823 to 1857, showed a very marked diminution at every quinquennial period of age, in the rate of mortality up to the age of 50, after which, in the later periods, the numbers were not sufficient fairly to carry on the comparison. On the average of all ages the rate in the former period was 3·92 per cent., and in the latter 2·69. Another conclusion clearly arrived at was, that at all ages below 65, the mortality amongst married officers was considerably less than amongst bachelors, being seldom more than 60 or 70 per cent. of the latter. The average rate of mortality at all ages was, amongst bachelors, 3·44 per cent.; married officers, 2·83 per cent.; and widowers, 4·45 per cent. Amongst retired officers the rate of mortality in each class, whether bachelors, married men, or widowers, was found to be always highest at the younger ages, and to diminish with great regularity to the ages 55 to 60. After this age it seems to exceed generally by about 25 per cent. the rate of mortality in Dr. Farr's "Healthy" Life Table for Males. In regard to the marriage rates, the observations were minute enough to afford some interesting deductions. A paper, then recently read by Mr. Archibald Day, before the Institute of Actuaries, "On the Statistics of Marriage among the Families of the Peerage," extending for a period of 100 years, preceding December 31, 1855, and comprising the marriages amongst 2721 bachelors, enabled me to make comparisons with those amongst military officers in the Madras army. The marriages amongst the aristocracy, as compared with the general population, were observed to take place at a much later period of life, and in a still more marked degree amongst widowers. This peculiarity was even more strongly observable amongst bachelors, being military officers in India, and to a certain extent amongst the widowers; the rate of the latter between 50 and 55 being double that of the peerage. It should be noticed that this period of life is nearly approaching that which shows the maximum rate of retirement, and may perhaps be connected in some way with the return of officers to Europe. The average age at which bachelors marry appeared to be about 30, and that of their wives 23—a difference of about seven years. Under 20, the bachelors marry wives about three years younger than themselves; and from 20 the discrepancy in favour of a younger wife steadily increases each five years, till at 60-65 years of age for the husband it is 25 years younger for the wife. For widowers, the average age of marriage appears to be about 41, and their wives 27—a difference of 14 years; just double that of bachelors. Under 25, in widowers' marriages the average age of the wife is five years older than her husband; but afterwards the discrepancy of age in favour of a young wife increases, till it is much higher than that of bachelors, being from 30 to 34 years when widowers marry at 60 and upwards. The vast impulse given in the commercial undertakings of India, railways, telegraph, and financial, land, and trading companies must have led to a great increase in the European population—an increase which there is every reason to believe will become annually greater, as European skill and capital find profitable employment in those wide fields of enterprise. At the same time, it will be many years before a proper organisation can be given to the collection of the statistics of life and health amongst a population so scattered or migratory as this is likely to be. Young men sent out as engineers, for commercial, telegraph, and other companies, will in most cases have to proceed to new

and unsettled districts, and frequently move about from one station to another. It would be well if all public companies, as well as the Government services, could be required to keep a careful register of their employés, their ages at admission, dates of withdrawal or death, and, as far as possible, of their marriages, families, etc. In the meantime, the most precise information on these subjects at present available will be found in the records of the Annuity, Provident, and Pension Funds for Widows and Children, which have been for many years established in the different Presidencies, both for the military and civil services of the Government. They require for their own purposes that the date of the birth, marriage, withdrawal, or death of each member should be furnished, as well as the date of birth of his wife, and of her second marriage, or death, and of the births or deaths of all his children. If these registers had been as carefully kept from the beginning as they are at present there would have accumulated by this time the materials for working out several important problems in population statistics. It is desirable, at any rate, to gather together what has hitherto been made public for comparison with more complete data, which may be given hereafter. It was from the records of these funds that the facts stated in my former paper were drawn relative to the rates of mortality and marriage amongst military officers in India, and I propose now to extend the inquiry to European civilians resident there, as well as to females and children. There seems no reason to apprehend that any great difference will be found as to the mortality of the two latter classes, whether they constitute the families of military or civil servants. With reference to the mortality amongst civilians in the three Presidencies, Mr. Brown states that, in India, the general conclusions at which we arrive are :—

1. That a considerable diminution has taken place of late years in the mortality at the middle ages—20 to 35—and at all ages, if we compare it with the earlier observations of the present century.

2. That a very marked distinction may be observed in favour of married life.

3. That, as compared with Farr's English healthy life table, the difference varies from 5 to 1 per cent. between the ages 20 and 55, after which it fluctuates, but is generally rather higher than the English rate.

In reference to the rate of marriage :—

1. That the rate of marriage amongst bachelors is much higher at every age than in the peerage of Great Britain; and though at ages under 30 it may be about 25 per cent. less than that of the general population, at all other ages it is considerably more.

2. That marriages take place at a much earlier period than in the military service, and on the average of all ages under 40 is nearly double.

3. The same remark applies to widowers, whose marriage rate under the age of 45 is considerably higher amongst the civil than the military service, though not more than 70 per cent. of that of the general population of England and Wales. I trust that the few statistics here recorded may lead to a more careful collection of the books of the Indian Annuity and Pension Funds, from which so much information on the families of members can be readily obtained. They may throw light not merely on the relative mortality of India and this country, both at the present time of the highest interest, but to the elucidation of many novel questions which an accurate register of family statistics could not fail to afford us. This subject may be fully illustrated by some facts which have been collected recently in a paper read before the Statistical Society, and published in the *Statistical Journal* by Mr. P. M. Tait. The Eurasians, as the name indicates, are a mixed race, the descendants of European (originally, to a great extent, Portuguese) and Asiatic parents. Latterly, the British is the predominant European element; but the name appears applied indiscriminately to the children of other colonists—Jews, Syrians, Christian Arabs, Armenians, Persians, Danes at Serampore, Chinese, and Americans. They are looked upon with some prejudice by the natives, being described as having the vices of the natives and Europeans without the probity of the latter. But they are much employed in the superior Government offices, and some Indian officers who have employed them bear witness to their quickness at computation, intelligence, probity, and unquestionably loyalty. They form a large proportion of the members of the Uncovenanted Service Pension Fund. Out of 945 who entered in 24 years ending April 20, 1857, there were 693 of this class, or 73 per cent., 246 Europeans, or 26 per cent., and the remaining eight, or 1 per cent., were not described. Hitherto the mortality of this class has been thought to be greater than that of Europeans, and some assurance companies decline them at European rates of premium; but at ages under 40 it seems that about 13·5 civilians die per 1000, and 17·6 of the class named. It is probable, however, that with the recent improvement in European life in India the difference would be found scarcely perceptible. In the recent and very elaborate report of the Commissioners appointed to inquire into the sanitary state of the army in India, in which our distinguished President of this Section (Dr. Farr) took so conspicuous a part, the fullest evidence was taken upon every subject that affects the health or mortality of the Indian army, the causes of the excess of the death rate amongst Europeans as compared with natives, and the remedies suggested for its almost entire disappearance. The recommendations will be principally effective in bettering the condition of the common soldier; but some of these, such as the selection of hill stations, the improvement of barracks, etc., would no no doubt incidentally benefit European officers also. In the report and appendix the summaries of the facts relating to Europeans in the civil or military services are compared. The general tenor of the report leads irresistibly to the conclusion that the great mortality which formerly decimated the Indian armies might, by judicious arrangement, be reduced to the ordinary rate amongst Europeans civilians there; whilst the mortality amongst the latter has for many years undergone so great an improvement as to present at some ages no very striking contrast with that of similar classes in this country—a remarkable proof that the science of statistics is not (as it used to be thought) a mere dry and tedious groping in the dark for figures, but an eminently practical and useful study, leading, even in the small part of its domain which we are now exploring, to suggestions which may be the means of preserving thousands of lives, and substituting the enjoyments of healthy life for the uncontrolled ravages of disease and death.

Statistics of Certain Armies.

By E. B. Elliott, Esq., Washington.

The author called attention, first, to the rates of sickness experienced by the Danish forces during the late conflict in Schleswig-Holstein; secondly, to the rates of sickness, mortality, and other casualties experienced by the United States Volunteers during the first fifteen months of the existing civil war; and thirdly, to certain physiological characteristics of the United States Volunteers, and the laws which govern the distribution of certain measurements. According to official data kindly furnished by the distinguished chief of the Medical bureau, the following rates of sickness, in Hospitals and quarters, were obtained at the different dates specified :—February 27, 10·20 to 1000 numerical strength; March 20, 9·75; April 23, 14·20; May 28, 11·90; June 25, 8·50; July 30, 8·85. These rates average about ten and one-half per cent. of the mean numerical strength of the army. The sickness rate was lowest just previous to the taking of Alsen (June 29), and highest on April 23, a few days subsequent to the taking of Düppel by the allies (April 13). The increase in April attending the taking of Düppel was due both to wounds received in action and to the greater prevalence of the zymotic class of diseases. The average rate was nearly identical with the sickness rate of the United States forces during the nine earlier months of the existing civil war (10·4 per cent.), and less than the rate for the subsequent six months (16·9 per cent.). The mortality of the United States volunteers during the fifteen months (July, 1861, to August, 1862, inclusive), as deduced from careful and elaborate examination of the official monthly returns of strength and casualties of regiments, was at the annual rate of somewhat over seven (7·2) in every 100 men, of which two (2·0) were from killed in action, and five (5·2) from diseases and accidents. The rate of mortality of officers from disease, as in other wars, has been less than that of the men, but from wounds received in action much greater. The mortality from wounds, both of officers and men, has in general been considerably less than that from disease, although with regard to officers in the latter part of the period the reverse has been the case, their mortality from wounds having somewhat exceeded that from disease. The rate of mortality in the existing war (7·2 per cent. per annum), for the period under consideration, although much greater than that of civilians of the military age, both in Europe and America, and greater than that of the army of the United States in time of peace, has been less than that of the United

States' forces during the war against Mexico, and very considerably less than that of the British forces on the Spanish Peninsula (in 1811-14), and in the Crimea (1854-56); the average annual rate in the Spanish Peninsula having been 16½ per cent., and in the Crimea about 23 per cent.; the last-mentioned rate only embracing those dying in Hospitals, and not including deaths on the field of battle. This smaller rate of mortality, as compared with those of the other protracted wars mentioned, is believed to be due, in no small degree, not merely to the early organisation by the people of systematic methods of inquiry into the condition of the soldier and of timely relief to the suffering—prompted by the noble examples and wise teaching of the Herberts and Nightingales, and other practical philanthropists of Europe—but also in part to the omnipresent representatives of the press of the country, continually informing as to the condition and the wants of the different corps and sub-divisions of the army. The casualties from all causes have been at the rate of 28 per cent. per annum of the strength—to wit, seven from deaths, twelve discharged from service, mainly for disability, six deserted, and three missing in action. The number discharged for disability is much larger than it would have been, had greater care been taken by the Surgeons in conducting the Medical examinations of recruits presenting themselves for acceptance. In the early part of the war, the greatest laxity prevailed in this regard, and thousands have been discharged from the service for hernia and other disabling infirmities, under which they were labouring at the time of enlistment. Of ten thousand (9835) recruits from the North-Eastern States of Vermont, Massachusetts, Rhode Island, and Connecticut, about thirty per cent.; and of sixteen thousand (16,404) from the North-Western States of Indiana, Michigan, Iowa, and Minnesota, twelve and one-half per cent., represented themselves as of foreign birth.

A Statement of the Mortality of the City of Bath.

By Mr. R. T. Gore.

The results communicated to the section arose out of some inquiries which had no other object than the author's own interest in the subject, and which he should scarcely have thought important enough to lay before it but for a wish expressed by others. His object has been to determine the ratio of mortality to population in the different registration sub-districts in which the city of Bath is comprised, and also the ages at which it occurs, from one year to one hundred, in twelve series, at the early periods of life of five years, and in the latter of ten years each. To arrive at accurate results it was necessary to make corrections for certain peculiarities in some of the sub-districts. Thus, in the Bathwick district it was necessary to separate the parish of Bathwick, which is within the city, from the country parishes included in the same registration district. In the Lyncombe and Widcombe districts it was necessary to deduct the mortality in the workhouse, which is swelled by many deaths belonging to country parishes.

General Summary of Mortality.—The total population of the city according to the last census, and including the workhouse and Hospital, may be taken as 52,500; and the total deaths as follows:—Lansdown, 341; Walcot, 280; Abbey, 298; Lyncombe and Widcomb, 214; Bathwick, 91. Total, 1224. To these must be added, for deaths of persons belonging to city parishes, in the workhouse, 59; in United Hospital, 67. Total deaths, 1350. Ratio of deaths to 1000 of population, 25·714; ranging from Bathwick, 17·28, to Abbey district, 27·09. Of the total deaths, the numbers, at certain ages, are as follows:—Under 10 years, 41·63; from 60 to 100, 28·82; intermediate ages, 29·25. For the purpose of comparison, a similar analysis is added of the amount and ratio of the mortality of the rural districts around the city, and comprised within the same union. These contain altogether a population of 15,808; and the mortality for the same period, as in the city, was 331, at the ages and in the ratio shown in the annexed table, the general ratio being 20·93, and ranging from 18·31 to 23·874.

Mortality of Country Districts of the Bath Union, year ending June 30, 1864.—Population, 15,808; deaths, 331; ratio, 20·93. Under 10 years, 47·9; from 60 to 100, 30·03; intermediate ages, 22. It should be added as a general remark, applying to all districts both in town and country, that during the year in question there was a prevalent epidemic of scarlatina, with a heavy rate of mortality. Thus, in the Tiverton district, of 166 deaths, 51 were from scarlatina, and of these 29 occurred in the quarter ending March 31, 1864. In the Batheaston district, of 128 deaths, 14 were from scarlatina. In Lansdown district, of 341 deaths, 62 were from the same cause; and of these, 62 were in young persons from infancy to 22 years of age. This epidemic has now for some months altogether ceased.

The Sanitary Statistics of Salisbury.

By A. B. Middleton.

The author gave a history of Salisbury, from the earliest period. Five plagues visited Salisbury in ninety years, viz., in 1579, 1604, 1627, 1655, and 1666. In 1775, a census was taken by order of the Corporation, and the number of the population was 6800; the death rate at that time being at the rate of 30 in 1000 per annum. A peculiar feature of Salisbury, before drainage, was presented by channels or rivulets, which ran through most of the streets. These were objectionable, not only on account of receiving much of the sewage of the city, but, not being water-tight, the subsoil was saturated by them, and the whole atmosphere was rendered moist and polluted. Since drainage, these channels having been annihilated, the ground is dry, and cellars that are quite dry can be made. The whole atmosphere of the city has been rendered drier and more pure. The mortality of the Close of Salisbury, before drainage, was 20 in 1000 for many years; since drainage, for 9 years, that mortality has been reduced to 13 in 1000. After 1850 the city was placed under the Local Board of Health Act, and the sum of £27,000 was expended in drainage, etc., and water-works. For 9 years previous to the new drainage, the births were 2470, and the deaths 2226, giving a majority of 244. For 9 years since the sanitary arrangements the births had been 2624, and the deaths 1695, giving a majority of 929. Before the drainage, the mortality was 20 in the 1000, and since it was 13 in the 1000. The deaths from consumption (a disease which was at one time very prevalent in Salisbury) for 7 years before the drainage were 286, and for 7 years since the drainage they were 143, being a decrease of one-half. The allied diseases produced by a moist and vitiated atmosphere had equally diminished. Mr. Middleton, however, cautioned the public against relying too much on sanitary arrangements, and on the unreasonable expectations held out by some as to the point to which the annual average of mortality could be reduced

Sanitary Statistics of Clifton.

By J. A. Symonds, M.D., F.R.S. Ed., and F.R.C.P.

One of the objects of this paper was to illustrate the importance of explaining statistical figures by statements in words. On August 6, a severe shock was inflicted on the sanitary sensibilities of Clifton. On that day, the readers of the *Times* beheld the name of Clifton hung up, as it were, on one of the columns of that journal, for exposure as one of the most mortal of watering-places. The proclamation was an extract from the Registrar-General's Quarterly Report. The feeling in the locality was very like what would thrill the inmates of a nunnery, were they to be told the high authority outside the walls had declared the virtue of their institution to be at no higher a level than that of a penitentiary. The figures of the Registrar-General's Report was as plain as the "Mene, mene" on the walls of Babylon, and yet as much in need of interpretation: 24 in 1000 was the annual rate of mortality in Clifton. The Isle of Wight had only to answer for 15 in 1000; Newton Abbot, including Torquay, for 16; Cheltenham for 17. "Why," asked the Registrar-General with Rhadamanthian severity, "is the mortality of Clifton 24 in 1000?" And the terrible question was asked about Clifton as one of the watering-places. The question would be startling enough to one who had taken only a superficial view of Clifton, of its crescents and terraces, and its broad avenues running along or just below an elevated ridge of mountain limestone, and abutting on breezy downs, and resting on a soil which in its nature and its inclination is singularly unfavourable to the retention of moisture. The question was still more startling to one who observed how large a proportion of houses must belong to persons in possession of the comforts and luxuries of life, and of the means of preserving health; not less startling to one who knew that a thorough system of public sewage had been completed, and at no small cost to the community; and most startling of all to those who had been for many years familiar with the diseases of the locality, and who knew that in what was understood by Clifton, the watering-place, there were no diseases that could be called endemic; that typhoid and typhus fevers were of rarest occurrence, and that when they occurred they were of extrinsic origin; that cholera, dysentery, and erysipelas were unknown in their zymotic forms; and that, in short, zymotic diseases, with the

exception of measles, scarlatina, and whooping-cough, were rarely met with. But the surprise of the remarkable statement alluded to subsided, when it was explained that Clifton, in the Registrar-General's Report, did not mean merely the place which he had just glanced at, but Clifton, the watering-place, together with a very destitute district in the parish, and also with a poor-law district, including five other sub-districts, scattered at considerable intervals over an area of 27,199 acres, in some parts densely crowded with the poorest of houses and inmates (a large portion not to be surpassed in their destitution by the tenants oi the closest and dirtiest quarters of an over-peopled commercial city or sea port), those sub-districts making up a population that was almost quintuple the population of Clifton proper. It was true that there was a table in the Registrar's report (which was not published in the *Times*), which stated the annual rate of mortality in several watering-places, and of Clifton among them, and in which there was inserted the parenthesis in reference to Clifton, "including a part of Bristol city and Bristol workhouse." But that was a most inadequate qualification. The Registrar-General's Clifton was Clifton, the name of the Poor-law Union. Dr. Symonds proceeded to point out the injustice of estimating the rate of mortality in the Clifton Union, and publishing it as the rate of mortality of Clifton the watering-place. The number of deaths in Clifton parish in the whole year of 1863 was exceptionally high, for it was was 465. That was at the rate of nearly 21 in 1000, but in 1862 it was only 1 in 365, which, reckoning the population at 22,000, would make a death rate of only 16 in 1000. In the year before, the deaths were only 329, and that would give a proportion of the population of only 15 in 1000; whereas Clifton was represented among the watering-places of the country, as having a rate of mortality as high as 24 in 1000. He pointed out, at considerable length, the character of the various parishes which were included in the parish of Clifton, and referred to the crowded nature of the dwellings in the out-parish of St. Philip and Jacob, and the existence in the parish of Stapleton of the Clifton Union Workhouse, the Bristol Workhouse, and the Bristol Lunatic Asylum. Dr. Symonds urged, finally, that it was unfair to associate the watering-place of Clifton with such districts as those to which he had referred; the numerical death rate of a watering-place should be neither complicated with the mortality in distant rural retreats, nor burdened with that of the sickly suburbs of a crowded city.

The Mortality of London and Paris.

William Tite, Esq., M.P., F.R.S.

Researches into the rates of mortality in Paris are enshrouded with uncertainty and mystery; and the official statistics of Paris can only be compared with those of London as far as the year 1860. The conditions of the two cities—politically, geologically, and socially considered—also give rise to many variations. In the course of the present century there have been no less than four great revolutions in the neighbouring capital that have totally changed the face of the political world, and have modified the comforts and the conditions of existence of the people exposed to their influence; whilst the cholera, the bad harvests, and the consequent dearness of food, the wars, and the street fighting, have combined to produce a higher rate of mortality than has fallen to the lot of our more favourably circumstanced capital. The inquirer into the mortality of the two cities cannot but perceive at the outset of his inquiries that they are situated under very different hygienic conditions, and that these conditions are greatly in favour of Paris. Thus, the geological nature of the soil—the kinds of food, both solid and liquid, that are there consumed—the character of the materials used in house-building—the climate—and, in fact, all that tends to make out-of-door life agreeable—are greatly superior in the case of Paris to what they are in London. Paris is situated upon the tertiary limestone formation; London is situated upon the impervious clays of the same formation; the one is dry, the other must be damp through a great part of the year; whilst the surface waters of the former are thus enabled to flow off from the ground or to be absorbed in it, and the latter remain on it. The situation of Paris is higher above the level of the sea than that of London, and the strata that occur between the levels of the former city are all of them highly permeable, being mostly calcareous, excepting where they are covered with the marls and clays of the gypseous formations, and where they are occasionally capped with the clays and gravels of the drift period. The kind of food that the inhabitants of Paris can command is better in many respects than that which can be met with in London, if it were only on account of the ease with which wine and fruits are obtained there; whilst the conditions of climate are as favourable to the production of animal food and the growth of cereal crops. Yet, with all advantages, the mortality of Paris is greater than that of London for 10 years from 1853 to 1862 inclusive; being in Paris 2·78, and in London 2·39 per cent. The London mortality, it is to be observed, presents a much more steady rate; and this is the more remarkable, that the rate of the increase of births over deaths has also been much greater in the latter city than it has been in the former. It may be said that more people die in Paris than in London proportionally to the population, from the tendency of the inhabitants of the *banlieue*, in the former case, to resort to the Hospitals of Paris in all cases that are likely to terminate fatally; but the same law holds good with London, and the mortality of the latter city is still further increased by the deaths of the children who are there brought up, whilst it is notorious that the Paris children are sent away to die where their numbers do not affect the town mortality.

The great excess of mortality of Paris over London is due to the dense crowding that takes place in the houses that the population of the former city occupy; to the bad hygienic conditions of these houses, as far as ventilation, the removal of refuse, and the water supply are concerned; and to the bad laying out of the town originally. In Paris there were as many as 35·17 persons per house, according to the statistics collected in 1856; and everything that has been done in that city has had a tendency to increase the number, by driving the poor from their lodgings, and forcing them to crowd themselves into the places left for them. In London the number of inhabitants per house is certainly less than 7·72, and the consequence is that they attain much nearer the nominal conditions that are observed to take place in France in country districts.

Ventilation in Paris is very bad. In almost all the court-yards in Paris, or elsewhere in French cities, there is a "villanous smell" that must interfere with the healthy exercise of some of the more important functions of the body. In the old parts of the city, too, the streets are narrow; they are badly planned, and they want light and air. As to the drainage and water supply of Paris, they are still in a very rudimentary state. The sewers act simply to relieve the streets from the rain water, and from the liquid portion of the house refuse; and the water supply is so managed that in no case is it possible to command anything like what we would call "a high service." It is necessary to carry up by hand to the higher stories of the buildings all the water that is there consumed. It is calculated that there are about 700 kilometres of roadway executed in Paris, but not more than one-half of this length has been sewered; and the system adopted there is carefully to exclude all that we in London so anxiously throw into the sewers, and to retain it to rot under the houses in cesspools, to be emptied from time to time. Deficient water supply of Paris is a cause of the increased mortality, and it is to be observed that this mainly depends upon the peculiar tenure of the house property in that country. There lodgings are held under the proprietor of the freehold by the tenant directly; and they are very seldom let on lease. The consequence is, that the landlords do not, as a general rule, provide their tenants with the means of receiving the water in their separate *apartements;* and the tenants do not go to the expense that would be necessary for laying on the water. In Paris, therefore, the custom is to lay on water to the ground floor of the houses, and this is done for one-half of the town. There are 25,000 subscribers to the waterworks out of about 50,000 houses that exist in Paris. The rest are obliged to content themselves with the water supply from wells. Doubtlessly the system that is adopted in Paris, of allowing the water to flow in the gutters for two hours in the course of the day, is conducive to the cleanliness and the salubrity of the town, by providing the means of washing the whole surface of the roadway at regular intervals; but this is a poor compensation for the absence of water in the private drains. But with all the causes of increased mortality of the city of Paris over London, the fact still remains that a great and marked decrease in this respect has taken place since the year 1853, or shortly after the Emperor began to urge upon the city the necessity of making better provisions for the sewerage, water supply, street ventilation, and the reform of the house system. Of late years, the difference in the rates of mortality that have respectively prevailed in the two cities

has been very slight; and though it might have been expected to have been in the opposite direction, still the diminution in that of Paris cannot but be a source of congratulation to the advisers of the Emperor, and an encouragement to the French authorities to persevere in the course that has already produced such satisfactory results. There is a singular subject connected with the rate of mortality in Paris, that merits careful analysis of the returns. It is, that the population that would seem to be benefited by the changes that are being made in that city, are apparently subjected to new forms of disease that go far to compensate for the mortality arising from the old forms they were exposed to, which are now disappearing. Thus there have been observed in Paris of late to have occurred many more deaths from intermittent fevers than were wont to take place in that city, and the number of fatal cases of pulmonary complaints has been considerably increased; the former are attributed to the exhalations that arise from the ground that is disturbed in erecting the new streets; the latter to the increased draught and to the workmen breathing more dust than they were accustomed to.

In so far as the hygienic conditions of the two capitals are concerned, Londoners enjoy a great advantage over their apparently more favoured neighbours, which is expressed by the fact of the death rate being about $1\frac{1}{2}$ in 1000 higher in Paris than in London. Much as has been effected for the sanitary condition of Paris, still more remains to be done before she can venture to compare with London as to the general conditions of the healthiness of the town.

Sanitary Statistics of Cheltenham.

By E. T. Wilson, M.D.

Dr. Wilson, after referring to the physical topography, the geology, meteorology, and climate, sewage and the system of drainage, the water supply and an analysis of the waters of Cheltenham, entered into the social condition of the inhabitants, from which it appeared that a large addition to the population of Cheltenham was continually being renewed from without, at an age and under circumstances the least subject to mortality, and calculated materially to affect any calculations drawn exclusively from the returns of death-rate for any district or sub-district. Of "the classes which minister to the artificial wants of a people, and indicate the enjoyment of ease and luxury," there are in Cheltenham twenty-one Physicians, Surgeons, and Dentists, against eleven in Clifton. The registration district of Cheltenham, which comprises the Union in which is included the sub-districts of Charlton Kings and Cheltenham proper, extends over an area of 24,876 acres, with a population in 1860 of 49,792, of whom 21,280 were males and 28,512 females. In 1851 the population was 44,184. Pauperism in the Union shows a steady increase, the amount per head of the population spent on the poor being always in advance of the average for all England, in spite of the large proportion of the wealthy classes residing in the town. The mortality of young children is still large, though less than the average for England and Wales. The average yearly number of deaths for the ten years from 1853 to 1862 was 736 (348 males and 388 females), or at the rate of 19·29 for every 1000.

Registration of Births and Deaths in Ireland.

By J. Wilson, Esq.

In accordance with the provisions of the Act, the 163 Poor-law Unions, and 718 Dispensary districts in Ireland have been adopted—the former as Superintendent-Registrar's districts, and the latter as Registrar's districts. During the first quarter there were registered in Ireland 30,330 births, affording an annual ratio of 1 in 48 of the inhabitants in 1861; and that the number of deaths registered was 28,540, being equal to an annual mortality of 1 in 51 of the population, according to the census of 1861. The annual birth-rate (computed on the return for the quarter) varied in the provinces as follow:—In Leinster it was 1 in 49; in Munster, 1 in 41; in Ulster, 1 in 52; and in Connaught, 1 in 54. The death-rate was—in Leinster, 1 in 46; in Munster, 1 in 51; in Ulster, 1 in 50; and in Connaught, 1 in 65. The return for the second quarter is in type. It shows that, during the three months ended June 30 last, the births registered amounted to 38,701, affording an annual ratio of 1 in 37, which was an increase of 8371 on the number registered during the previous quarter. The deaths registered during the second quarter amounted to 24,448, being equal to an annual ratio of 1 in 59 of the inhabitants in 1861; and was a decrease of 4092 when compared with the number registered during the previous quarter. The annual birth-rate afforded by the number of births registered during the quarter varied in the provinces, thus:—In Leinster it was 1 in 38; in Munster, 1 in 34; in Ulster, 1 in 38; and in Connaught, 1 in 41. The death-rate was as follows:—In Leinster, 1 in 55; in Munster, 1 in 60; in Ulster, 1 in 57; and in Connaught, 1 in 77.

SECTION B.—CHEMICAL SCIENCE.

Utilisation of Town Sewage.

By Dr. Henry Bird.

After some remarks on the economic aspect of the disposal of town sewage, showing that the utilisation of sewage matter would prevent the soil from being impoverished by the steady abstraction of valuable materials from it, and the rivers and water courses from the defilement and injury which are now progressing *pari passu* with the advancement of town-drainage and the extension of chemical works, Dr. Bird observed that the sanitary aspect of the question was no less important. Many diseases are called into activity by foul accumulations in drains and ditches, and by the contamination of running water with the excreta of populous districts. Experience has shown that all diseases are aggravated, and especially that epidemics and pestilences extend and become more fatal, in communities and families which breathe impure air and drink foul water. Blood-poisoning is a common result of poisoned air and water. It is under such circumstances and conditions of atmosphere and water supply that scarlatina, typhoid, or intestinal fever and cholera break out, spread, and destroy. The subject is, therefore, one of deep interest to all persons concerned in the management of the sick poor; and who is not so concerned? Thus, on sanitary as well as on economical grounds, the right use of sewage is inseparable from the public safety, and essential to the public prosperity. Parliament should be asked to facilitate the extension of sewage works in the neighbourhood of towns and villages, in order to distribute and apply their excreta to the surrounding land by irrigation, and by other means; and at the same time to prevent, by stringent enactments, the fouling of rivers and brooks, by sewage and other town refuse. The plan submitted by Dr. Bird had never been tried on a large scale, but it had been tested by a limited experiment, and had been found to answer the purpose satisfactorily. It was founded upon the physical properties of sewage, and on a few well-known chemical and mechanical principles. The following propositions embodied these principles and the leading features of the plan:—1. Sewage flowing slowly through pools, or tanks, or confined in vessels, is separated into three portions, the floating, the precipitated, and the intermediate fluid. 2. Precipitation may be promoted by the use of cheap, simple, and easily procurable deodorants, to be hereafter specified. 3. Sewage, from the nature of its composition, rapidly undergoes putrefaction, which injures its fertilising qualities, and causes deleterious and offensive emanations. The same fermentation may be produced by allowing fresh sewage to filter through masses of old sewage in tanks, drains, and more rapidly in large sewers. 4. This process of decomposition may be arrested, and its injurious results prevented, by removing the more solid matters of the sewage, and drying them at a low temperature with antiseptic chemicals. 5. In the decomposition of sewage ammonia and other volatile compounds are evolved, and are soon dissipated and lost. If old sewage be dried by simple exposure, it will be found to possess but a low fertilising power; while, if dried with sulphuric acid, the ammonia becomes fixed, decomposition is arrested, and the fertilising principles are retained. 6. The ashes, sweepings, and other refuse of large towns may be rendered available in the fertilisation of poor land, by percolating fluid sewage through them, for two or three weeks, and drying the mass with sulphuric acid. This compost may with little trouble or expense be made worth at least ten shillings per ton. 7. All manures prepared from sewage should be kept dry, and protected from sun, heat, and rain. 8. Fluid sewage, however treated, contains in solution and suspension fertilising salts and organic matters. 9. Fluid sewage can in every case be used for the irrigation of land. It should never be allowed to flow into the sea, rivers, or brooks. 10. The more solid portions of sewage may be easily separated from the fluid by allowing the whole to flow slowly through tanks and culverts, fitted with sluices or tubes, the current being directed through the middle level without disturbing

the surface or bottom of the tank. The separation would be accelerated by the use of sulphated clay. 11. Clay, especially the more ferruginous clay, and sulphuric acid, mixed in the proportion of one part of the latter with nine parts of the former, in a dry state, forms a cheap and efficient precipitant for sewage; it acts at the same time as a deodorant. It does not injure the manure, but adds materially to its fertilising quality. 12. In the tanks already mentioned, the floating matter should be daily skimmed off the surface of the fluid sewage, then placed in a reservoir, and treated with diluted sulphuric acid. The precipitated matters should be also removed as often as the divisions or spaces between the sluices and bottom of the tanks become filled, and treated in the same manner with sulphuric acid. These matters so prepared may be dried quickly, at a temperature not exceeding 150 degrees, by spreading the mass upon heated beds of fine ashes or clay in covered sheds. When sufficiently dried, the compost should be crushed, to make it fit for drilling or spreading on land. 13. When the more solid portions of the sewage are thus intercepted by sluices or traps, and removed (as above directed), offensive emanations are materially lessened, if not prevented, and the fluid portion passes tolerably clear out of the tanks. By this method the fætor caused by the passage of fresh sewage through matters of semi-solid putrifying matter is altogether prevented. In order to preserve the supernatant and precipated portions of sewage, the most efficient and economical antiseptic is sulphuric acid; for it fixes the ammonia, converts the vegetable matter into glucose, and checks fermentation; and all the resulting salts are excellent manures for crops of clover, etc.

Dr. Bird exhibited the action of sulphated clay, both in its dry state and in solution, as also models for tanks, etc., and other means by which percolation through town rubbish may be advantageously effected. A solution of the sulphated ferruginous clay, which may be called "liquid sulphate of alumina, with sesquioxide of iron," was sent for analysis to Professor Taylor, whose report is annexed. When this deodorant is required to purify house-drains and sewers, it should be applied at the very commencement of the drainage system —namely, in the waterclosets, sinks, cesspools (if any), and scullery traps of every house communicating with the common sewer. Half an ounce of the liquid mixed with water should be used on each occasion, once or twice a day, or more frequently. It would prevent the disengagement of ammonia and sulphuretted hydrogen. It would precipitate the phosphoric acid of the phosphates. If it did not destroy the specific germs of certain infections—as those of scarlatina, or typhoid fever, etc., it would doubtless check their progress, by removing some of the conditions under which they multiply and spread. Dr. Bird then went on to show that land may be irrigated with fluid sewage by sub-soil or underground channels. Neither lime, sesquioxide of iron, alumina, nor any other deodorant, except sulphuric acid, should be used with sewage when the fluid parts are intended for irrigating land, for those bodies with that one exception take some valuable ingredient from the fluid. One part of sulphuric acid to 70,000 parts of sewage would be sufficient to maintain the fertilising property of fluid sewage, until it had passed through the drains over or into the soil.

The following report of an analysis of the deodorising liquid, furnished by Professor Taylor, was read by Dr. Bird:—The liquid is of a pale brown colour, its specific gravity is 1·057, and it leaves on evaporation 7·5 per cent. of dry mineral residue. Its prineipal constituents are sulphuric acid, alumina, and oxide of iron; it has a strong acid reaction. The following proportions were obtained by a quantitative analysis, the weights of each ingredient being calculated from an imperial pint of twenty fluid ounces of the solution:—Sulphuric acid (specific gravity 178), 454; alumina, 240; sesquioxide of iron, 168; total grains, 862. An imperial pint, therefore, contains two ounces (avoirdupois) of the mineral constituents. The admixture of this liquid in proper proportions with sewage, containing sulphide of ammonium, alkaline phosphates, and carbonates, would produce a precipitate of alumina and oxide of iron. If sulphide of ammonium abounded, black sulphide of iron and sulphur would in the first instance be precipitated. In reference to the phosphates, the phosphoric acid would also be thrown down with oxide of iron. At the same the precipitated alumina would tend to purify the liquid by fixing and combining with suspended and dissolved impurities. The mixed deposits of alumina and oxide of iron thus containing the solid ingredients of sewage in an innocuous form, would be in a favourable condition to act as manure. The alkaline bases of the sewage, including ammonia, would combine with the sulphuric acid, forming soluble sulphates in the clear liquid separated from the precipitate. The sulphate of ammonia thus produced would act as a good fertiliser of the soil. For the efficient action of this liquid as a deodoriser and precipitant, the sewage should be alkaline, or contain sufficient alkali (as carbonates) to neutralise the acid. A few acres of land arranged in tanks with sluices, etc., for the use of sulphated clay would be sufficient to precipitate the sewage of the largest towns and cities, even the metropolis.

The Pollution of Rivers by the Sewage of Towns.

By Dr. Stevenson Macadam, Edinburgh.

Dr. Macadam's investigations had been directed to the water at Leith, which was supplied to Edinburgh. The especial part of the inquiry to which he directed attention was the composition of the gases found in the water which conveyed sewage. The water at its source in Leith had 9½ cubic inches of gases in the gallon; consisting of 2 parts of carbonic acid, 29 of oxygen, and 69 of other gases. After the water had passed through several paper mills, where it received washings from rags and the works, it was found that the proportion of gas was not materially changed; it contained 9½ cubic inches, but the composition differed, being 7½ of carbonic acid, and 22 instead of 29 of oxygen, and 70 of other gases. After passing Edinburgh the water contained 7⅔ cubic inches of gases, consisting of 18½ parts of carbonic acid, 7 of oxygen, and 74½ of other gases. This small proportion of oxygen caused the water to be so deadly to fish, as there was not enough for respiration. They had not found the irrigation system practised there to be efficacious in extracting the noxious material from the water. In answer to a question put to him, Dr. Macadam said that after the water had been contaminated by sewage, he found small traces of sulphuretted hydrogen, but so small that he did not consider it necessary to test the proportion. There were greater traces of it when the sewage came into contact with sea water.

Suggestion on the Detection of Poisons by Dialysis.

By Dr. A. T. Machattie, Glasgow.

The suggestion had reference principally to the difficulty of detecting poisons when mixed with the contents of the stomach or intestines of the animals to which they may have been administered. One of the most important applications of the dialyser consists in the detection of poisons by its means in the animal system after death. In experimenting lately with a commom dialyser, it occurred to Dr. Machattie that in some cases it might be of advantage to employ the coats of the stomach or intestines of an animal as the membrane or septum of the dialyser, and in this way avoid interference with the organs themselves until they had been subjected to investigation. This can the more readily be done, since the exterior of the stomach of animals is seldom coated with any appreciable amount of fatty matter, and, therefore, the whole preparation necessary seems to consist in thoroughly washing the exterior of the stomach or intestines to be examined. This manner of detecting poison need not entirely prevent the previous examination of the interior lining of the stomach, provided that the opening be made so as to enable the stomach to be afterwards suspended in water without mechanical leakage. A portion of the intestines of an animal supposed to be poisoned may be tied firmly at each end, washed carefully, and exposed to the external action of water for twenty-four hours, or longer if necessary, in the usual way. Want of time had as yet prevented Dr. Machattie from testing this process thoroughly, but certain preliminary experiments made to determine the practicability of the method now suggested might be mentioned. 1. Into the reticulum of a sheep were placed three grains of arsenious acid, partly dissolved, but principally suspended, in one ounce of water. The organ was then carefully washed with distilled water, and afterwards almost completely immersed in ten ounces of water. At the end of twenty-four hours the water was greenish in tint, due to the colouring matter of the grass with which the stomachs of the sheep were nearly full when the animal was killed. One half of the liquid was treated with hydrochloric acid, which caused a decided precipitation of white flocculent matter. The acid liquid was filtered from this precipitate, and then saturated with hydrosulphuric acid, when a slight precipitate of tersulphide of arsenic was obtained. Another portion, tested by Reinsch's process, gave abundant evidence of the presence of arsenic. No evaporation of the external

liquid was required in either instance. 2. Into a portion of the duodenum of the same sheep one half of a grain of arsenious acid was placed, dissolved and suspended in water. This part of the duodenum, after being washed, was tied at each end and suspended in eight ounces of water, in such a manner as to keep the tied ends entirely out of the water, and so prevent the contents from escaping by any opening that might still exist. The liquid became greenish, as in the first case, and after 24 hours yielded arsenic by Reinsch's process; but no appreciable precipitate was obtained by treating the liquids with hydrochloric and hydrosulphuric acids. Three grains of strychnine dissolved in one ounce of water, with a few drops of hydrochloric acid, were added to the contents of the omasum of the sheep; and, when treated as before, strychnine was detected in the external liquid. In this instance it was not necessary to evaporate the liquid; but the presence of organic matter prevented the application of the colour tests for the alkaloid, and ether was required to separate the strychnine in a state pure enough to be recognised. Bichromate of potash and sulphuric acid gave evidence of the strychnine by the characteristic violet tint, and the bitter taste was easily observed. The above experiments show that arsenic and strychnine pass readily through the walls of the stomach and intestines of a sheep; and considering that the structure of the stomach and intestines of the higher animals is very nearly alike in all, and that so many of the commonly used poisons are crystalline, it may safely be assumed that other crystalline poisons may be detected in other animals in a manner similar. The quantity of poison used in the above experiments is larger than what may be expected to occur in the body of many poisoned animals; and it is, therefore, possible that with minute traces of poison this process of detection might fail. As to the time of exposure, the only limit appears to be the length of time before putrefaction takes place. Twenty-four hours is, perhaps, the minimum which should be trusted, and the maximum time will depend on the temperature and season. In conclusion, Dr. Machattie suggested that many problems in physiological chemistry might be better elucidated by the process just described than by using an ordinary hoop dialyser. In discovering, for example, what portion of the contents of the stomach or intestines of an animal pass through the walls of the organs with the greatest rapidity, it would be better to take the stomach or other organ exactly in the condition in which we find it in the animal, and without unnecessary mixture of, or interference with, its contents, and also without any exposure to air, treat it with water externally at once, and thus prevent the influencing of the results by unnatural treatment, which cannot be avoided in the usual process.

Analysis of Bath Waters.

By Professor Roscoe, F.R.S., Manchester.

At the request of Sir Charles Lyell, Professor Roscoe undertook the examination of the residue obtained by the evaporation of the Bath waters (King's Bath spring), by spectrum analysis. About four ounces of the deposit from the basin in the pump-room was kindly forwarded to him by Dr. Falconer. This was first examined for strontium, barium, lithium, rubidium, and cæsium, by first boiling it out with water acidulated with hydrochloric acid; this separated the sulphate of calcium, of which the deposit mainly consists, together with most of the sulphates of strontium and barium which might be present. The residue was fused with carbonate of sodium, and the carbonates examined for barium and strontium, according to the method described by Bunsen. No trace of barium was found, but strontium was present in quantities sufficiently large to enable it to be easily detected. The portion of the deposit soluble in dilute hydrochloric acid was freed from alkaline earths by several precipitations with carbonate and oxalate of ammonia, and in this precipitate strontium was again detected. The magnesium was next separated by ignition of the mixed chlorides with oxide of mercury; and on examining the portions of the residue soluble in water, the red lithium line was plainly visible. The alkalies were precipitated as platinum double salts, but after long washing no other lines than those of potassium could be detected. It appeared, however, possible that the greater portion of the more soluble alkaline salts might not be spontaneously deposited from the water, but on examining according to the above method, the salts derived from the evaporation of twenty gallons of water, Professor Roscoe was still unable to detect the smallest traces of either rubidium or cæsium. In the course of both analyses he detected the presence of copper in the deposit by the usual tests.

We have thus brought this report to a close, and trust our readers will feel satisfied of the fact that they have before them every point of Medical scientific interest that came before the meeting. Dr. Livingstone's lecture has not been introduced, for the reasons that it has already appeared in all the daily journals, and that its subject matter was rather of geographical and political than of Medical interest.

It has been urged against the Bath meeting that there was deficiency of originality in the proceedings. This remark, true, perhaps, in a general sense, can scarcely apply to the physiological department, in which there were three or four papers of marked originality and value; while the whole series were of such a character that, when they are classified in the form in which we have placed them, they are seen at a glance to be a small volume of the utmost practical utility. The special worth of the individual papers read it is not our province to expound; we leave exposition with the reader, who will form his own judgment, with a certainty that in the various details now in his possession he will find something to his taste and much for his instruction.

THE MEDICAL OFFICERS OF THE ARMY AND THE VICTORIA CROSS.

Complete List of all Medical Officers of the Army who have Received the Victoria Cross,

AND

Comparative Statement of the Number of all Ranks in the Army who have Received that Decoration.

As an impression seems to have got abroad that the decoration of the Victoria Cross has been sown broadcast amongst the Medical officers of the Army, we append two statements, the first showing the names of Army Medical officers who have had the Victoria Cross conferred on them, with the services for which they received it; and the second, for purposes of comparison, an abstract of the numbers in the different ranks in the army who have, from the institution of the Victoria Cross, received that decoration. In the navy the Victoria Cross has not been conferred on any Medical officer. These statements are compiled from the lists which have appeared in the monthly Army Lists from March, 1857, to October, 1864, and include the latest decorations conferred for gallant conduct in New Zealand.

Army Medical Officers who have received the Victoria Cross from the Date of its Institution.

June, 1857.—Assistant-Surgeon T. E. Hale, 7th Foot, for remaining with an officer dangerously wounded in the fifth parallel, on September 8, 1855, when all in the neighbourhood retreated, except Lieut. Hope and Dr. Hale; and for having, on September 8, when the regiments had retired, cleared the most advanced sap of the wounded, and carried into the sap, under a heavy fire, several wounded men.

December, 1857.—Assistant-Surgeon H. T. Sylvester, 23rd Foot, for going out on September 8, 1855, to a spot near the Redan and dressing the wounds of Lieut. Dyneley in that exposed position. This officer was mentioned by Sir J. Simpson for his courage on September 18 in going to the front under a heavy fire to assist the wounded.

July, 1858.—Surgeon James Mouat, C.B,, late of 6th Dragoons, for having assisted Lieut.-Colonel Morris, and dressed his wounds, under a heavy fire, at Balaklava.—Assistant-Surgeon V. M'Master, 78th Foot, for the intrepidity with which he exposed himself to the fire of the enemy in bringing in and attending the wounded at Lucknow on September 25, 1857.—Surgeon A. D. Horne and Assistant-Surgeon W. Bradshaw, 90th Foot, for gallant conduct, when left in charge of wounded, when Major-General Havelock forced his way into Lucknow, September 26, 1857.

December, 1860.—Surgeon Josh. Jee, C.B., 78th Foot, for most conspicuous gallantry and important services on the entry of Major-General Havelock's relieving force into Lucknow, September 25, 1857.

March, 1861.—Surgeon H. T. Reade, 61st Foot, for most conspicuous gallantry and important services at Delhi, Sept. 14 and 15, 1857. On September 16, he was one of the first in the breach at Delhi, and with a sergeant of 61st Foot, spiked one of the guns.

October, 1864.—Assistant-Surgeon W. G. N. Manley, R.A., for having most nobly risked his own life in his endeavour to

save that of the late Commander Hay during the assault on the rebel Pah, near Tauranga, New Zealand, on April 29, 1864.—Assistant-Surgeon W. Temple and Lieut. Pickard, R.A., for having, during the assault on the enemy's position at Rangiriri, in New Zealand, on November 20, 1863, most nobly exposed their lives to imminent danger, with a view to render assistance to the wounded, and more especially to the late Captain Mercer, of the Royal Artillery.

Statement 2.

Colonels, 3; Brevet-Colonels, 1; Lieut.-Colonels, 4; Brevet-Lieut.-Colonels, 2; Majors, 5; Brevet-Majors, 13; Captains, 24; Lieutenants, 52; Ensigns, 4; Surgeons, 4; Assistant-Surgeons, 6; Civilians (India), 3; Indian Ordnance Department, 2; Indian Medical Department, 1; Naval Brigades, 8; Non-commissioned Officers and Men, 145: Total, 277.

REVIEWS.

Principles of Human Physiology. By William B. Carpenter, M.D., F.R.S., &c., &c. Sixth Edition. Edited by Henry Power, M. B. Lond., F.R.C.S., Assistant-Surgeon to and Lecturer on Physiology at the Westminster Hospital, &c. London: Churchill and Sons. 1864. Pp. 946.

The fifth edition of this standard work was published in 1855, and although it has been long out of print, Dr. Carpenter has in vain endeavoured to find time for a revision, amidst a series of original researches which he felt obliged to carry out. Owing to this fact, and then to his abdication of the Chair of Physiology for the office of Registrar to the London University, and the incessant duties of this office, he felt that his time and working power did not enable him to grapple with the mass of new matter which lay before him. Hence he intrusted the work, with the exception of the first two chapters, into the hands of Mr. Henry Power, who is responsible for all save those two chapters, both as regards their scientific matter and their literary handling. We venture to say that the confidence of the author has not been misplaced.

The editor began his labours, as he tells us, by a collection of the facts and doctrines which have been promulgated by German physiologists. He does justice to Germany as the centre whence the extension and development of modern physiology chiefly proceeds. He alludes to the time and leisure of German physiologists, and to the fact that they are not distracted by practice. We may say, in parenthesis, all the more honour to British workers, every minute of whose time devoted to science is so much diverted from the worship of Mammon to the pursuit of Truth. But out of this very multiplicity and profundity of research arises a mass of results incompatible with each other; the sifting, comparison, and selection of which must be indeed a heavy task. The editor has adopted the plan of stating opposite views, where each seems to include some element of truth, and leaving the reader to select whichever seems to him most tenable. The additions to the book bring it quite up to its former bulk, although 140 pages on the Mind have been omitted, and are intended to serve as the nucleus of a new book.

When we cast such a glance through this book as present opportunity permits, and dip here and there, we find every sign that it has been submitted to the most conscientious revision, and that nothing new has been omitted which was worthy of notice. If we look into the chapter on the Blood, we find Mr. Gulliver's most recent drawings and measurements of the corpuscles; Dr. Roberts' conclusions from the action of Magenta; a notice of the four crystallisable substances found in the corpuscles; and of Gorup Besanez' caution against the acceptance of those analyses which profess to reveal the relative quantity of corpuscles and albumen, because the results depend entirely on the mode of analysis employed. A separate section has been added on the Pneumatology of the Blood. The researches of Halford, E. Smith, and Marey have been incorporated with the chapters on Circulation and Respiration; the "balance of nutrition" is illustrated by an account of the various experiments of Bischoff, Voit, Ranke, Vierordt, Hammond, Professor Haughton, and others, on the ingoings and outgoings of the animal economy. The Glycogenic functions of the liver, Lockhart Clarke's researches on the spinal cord, Fflüger on the influence of electrical currents on motor nerves; the researches of Helmholz, Huxley, and Brown-Séquard, all find their place, and the student and Practitioner to whom we announce this new edition may be sure that it maintains or exceeds its ancient reputation.

Hooper's Physician's Vade-Mecum: a Manual of the Principles and Practice of Physic, with an Outline of General Patholo Therapeutics, and Hygiene. 7th Edition, greatly enlarge and improved, by W. A. Guy, M.B. Cantab., and John Harley, M.D. Lond. London: Renshaw. 1864. Pp. 792.

This is an immortal book. *Tempus edax* seems to have no power over it. Each edition is fuller and better, and newer and fresher, than its predecessors. Does any one ask what does it teach? We would rather say, what does it not teach? Almost the whole of the art and science of Physic, except anatomy and Surgery. It contains a very large portion of physiology, especially so far as relates to those functions which the Physician ought to be acquainted with in order to make an accurate diagnosis, or to understand what is knowa of the action of remedies. It gives full instruction in the *Institutes of Medicine*, or the rules applicable to disease in general, and the examination of patients. Statistics, hygiene, diet, and therapeutics are all well and clearly outlined, and the section on nursing and the general management of the sick-room deserves commendation. Then follows a compendious practice of Physic, giving name, synonym, symptoms, causes, treatment, and all in the shortest possible style. The book is concluded by a copious array of prescriptions. Altogether it is a valuable guide to the student and young Practitioner.

Practical Anatomy: a Manual of Dissections. By Christopher Heath, F.R.C.S., Assistant-Surgeon to, and Lecturer on Anatomy at, the Westminster Hospital. London: Churchill and Sons. 1864. Pp. 540.

Mr. Christopher Heath has shown his ability as a writer so clearly in his standard work on Minor Surgery, and is so well known as a private and public anatomical teacher, that the present work comes with the best credentials, and is sure of a favourable reception. It is short, and clear, and well illustrated, and although most of the illustrations are taken from Wilson, yet there are many which are new and original, or copied from authors who have made some special region a special study. For example: Mr. John Wood contributes those on hernia, and Dr. Savage those on the female perinæum, and many plates are taken from Hirschfield and Leveillè. It is also practical, and represents faithfully the work which the student should do in the dissecting-room, and the way in which he should do it.

Thermæ Romano Britannicæ; a Description of the Roman Baths found in Italy, Britain, France, Switzerland, etc.; with some Notices of the Mosaics and Paintings which formed a part of their Decorations, especially of the Thermæ of Titus and Constantine. By Robert Wollaston, M.D., M.R.C.P. Lond. London: Hardwicke, 192, Piccadilly. Stafford: R. and W. Wright. 4to. Pp. 68. 1864.

The title explains the purpose of this work, which will be interesting to the archæologist and to everyone who desires to know the customs of our predecessors in civilisation. The *bath* was not *bath* only, but club, cricket-ground, tennis-court, gymnasium, ball-room, and concert-hall. By the way, Dr. Wollaston falls into one queer blunder. He makes Caractacus and his family *Angli*, instead of Britons, and puts into the mouth of the Roman Emperor the pun about *Angli* and *Angeli* which is generally ascribed to Pope Gregory the Great, four centuries later. If a pagan Roman Emperor had any knowledge of what we call *angels*, and put the Jewish or Christian interpretation on the word *angelus*, it was a very funny thing.

The Chemical Processes of the British Pharmacopœia. By Henry J. Church, of Cambridge. London: R. Hardwicke. 1864.

This is not a criticism, but a simple explanation of the processes in the British Pharmacopœia, with just as much chemical commentary as may make them understood. The writer notices the omission of *heat* in the preparation of hydrochloric acid. It looks useful for the purposes of the student, but would be improved by index, contents, and running title.

Physical Geography for Schools and General Readers. By M. F. Maury, LL.D., Commander in the Navy of the Confederate States of America, etc. Longmans. 1864. 12mo. Pp. 140.

In this small volume, after a short *resumé* of the features of

the earth, the author gives a most interesting popular account of the distribution of heat and rain over the earth's surface by the agency of wind, ocean, and mountains. In the last chapter, his account of *maize* and its influence on the growth of the American population is highly suggestive.

Illustrations of Dissections in a series of Original Coloured Plates, the size of Life, representing the Dissection of the Human Body. By G. Viner Ellis and G. H. Ford. Part X. Price 3s. 6d. London: Walton and Maberly.

A good investment for students. It will be complete in twenty-five parts, and contains original drawings, the size of life, made from dissections carefully prepared for this work.

FOREIGN CORRESPONDENCE.

AMERICA.

Before Petersburg, Va., September 9.

Three months have elapsed since my last letter reached you. To-day I send you a brief summary of the events of the summer. I must premise, however, that details such as these must read drily and appear uninteresting, except in so far as they may bring to your readers—enjoying the quiet and comfort of civil practice—an idea of the constant fatigues, privations, and dangers to which the Profession at the present time is subjected in Virginia, and that the said details refer to the second corps of the army of the Potomac rather than to that army as a whole.

On the 1st of June, as will be seen by referring to my last communication, the corps was in position partly on the right and in part on the left bank of Tolopatomy creek, while the Hospitals were about a mile in the rear on the Richmond-road, near where it is crossed by that leading from Hanover Junction to Cold Harbour. Very few wounded were inmates of the Hospitals, as most of the cases that had resulted from forcing a passage across this stream had already been sent away for further treatment to Whitehouse, on the Pamunkey River, then our base of supplies.

The Medical officers on duty at the Hospitals, taking advantage of this state of affairs, were actively engaged in fitting up their establishments with a view to the greater comfort of their future inhabitants, when orders to "march at nightfall" put an end to their improvements.

A night march rapidly executed brought us to Cold Harbour, on the extreme left of the whole army, where we went into position. Some difficulty was experienced in hunting up a suitable Hospital site. A house known as the Tyler House, situated about a mile and a-half from Cold Harbour tavern, on the Whitehouse-road, was selected, but when this choice was made known to the military authorities they objected to it as unsafe, on account of its position on the left flank. Further to the right a place was sought for, and late in the afternoon the tents were pitched in a piece of open ground,—a poor location, certainly, but the best that could be found within a reasonable distance of the front.

Next morning, at 4.50 o'clock (June 3), the assault on the rebel works was made, and during the whole of the day and that which followed, picket firing was particularly sharp, and varied occasionally by long volleys from different parts of the line. The wounded were not all brought off the field until night had rendered it less dangerous for the stretcher-carriers to expose themselves beyond the lines. After all operations had been performed and wounds dressed, waggons, which had come to the front loaded with commissary supplies, were made use of to carry the wounded to the rear. No ambulances were permitted to be sent away, since an engagement seemed probable at any moment. Nearly 2000 cases of wounds were treated in the Hospitals of the corps during and after the assault.

On the afternoon of the 6th some alterations effected in the position of the line held by the troops placed the Hospitals at too great a distance from the front. The Tyler House, the situation chosen on June 2, but relinquished in accordance with the advice of the military commanders, was a second time selected. The troops had extended on the left, and this house was now secure enough. The Hospitals were moved over early in the afternoon, to allow sufficient time, before darkness set in, for the comfortable settlement of the patients, as it promised to rain heavily during the night. The ground in the vicinity of the house was elevated, the water excellent and plentiful, and the roads to front and rear firm and in capital condition. An ice-house afforded an ample supply of this luxury during the whole of the time spent in this neighbourhood.

On an average, about fifty men were daily brought in wounded during the remainder of the time the troops were intrenched in front of Cold Harbour. They were wounded by sharpshooters or by random shells. Advantage was taken by the Medical officers of their stay here to have all their medicine waggons well filled with Medical and Surgical supplies, obtained from the Medical Purveyor at Whitehouse.

On the afternoon of the 12th, preparations for a move were commenced. The ambulance train was divided into two commands; one to follow the troops upon the march, consisting of forty-five waggons, fifteen to a division; the other, formed of the remainder of the train, to proceed to the rear and follow up the army, along with the Quartermaster's teams. Those men who were not so seriously sick as to demand their removal to Hospitals away from the army, were sent to the rear with this train. Accompanying the troops, in addition to the ambulances, there was also to each division one medicine waggon, to the packing of which particular attention had been called, in order to ensure in each case, not only a complete waggon load, but one judiciously selected for field use.

After dark we marched from Cold Harbour, crossing the railroad at Dispatch Station, and the Chickahominy at Long Bridge, and on the afternoon of the following day, reached the James River, at Wilcox Landing. Wilcox, by the way, belongs to the Profession; is in the C.S.A., and on duty at Lynchburg. The number of houses in Virginia that belong or belonged to Medical men is very surprising. I cannot conceive how, before the war, each could have found a paying practice. Many of them, however, I understand to have been wealthy farmers or planters, who, in their younger days, with a view to finding a present occupation and a Professional handle to their names in future, spent a year or two of study in Philadelphia or New York.

The James River was crossed in transports on the 14th, and the march to Petersburg occupied the whole of the 15th, while during the 16th the troops were manœuvred into the desired position. A site was selected for Hospitals about three-quarters of a mile from the line of earthworks, at a house upon the road leading to City Point. Nothing, however, could be effected in the way of establishing hospitals, since all the waggons containing furniture and most of those carrying supplies were somewhere in the rear with the main supply train. It was 9 p.m. before this train, which had been delayed in crossing both the Chickahominy and James, succeeded in reaching the scene of action. It arrived at a most opportune moment; the assault had been made at 6 p.m., and the supplies in the boxes of the few ambulances that had been permitted to travel in rear of the corps had already been used up. Tents were rapidly pitched and food prepared for the 1700 wounded already collected from the field. This was the first time, during the whole of the campaign, that wounded men reached the rear before Hospitals were completely established, and in this instance the conducing circumstances were entirely beyond the control of the Medical officers. On the 17th and 18th the skirmishing at the front was actively kept up, while in the Hospitals the Medical officers were assiduous in their labours to have the wounded ready to be removed at the earliest opportunity. On the morning of the latter day, a second assault was made, yielding nearly a thousand cases. Everything remained comparatively quiet on the 20th, but on the 21st we moved off to the left, and took position across and on the left of the Jerusalem Plank Road, which runs into Petersburg from the south, between the Norfolk and Weldon Railroads. The wounded by this time had been transferred to the depôt at City Point, so that the field Hospitals were in a condition to follow the troops. They established themselves at a house called "William's House," on the left of the Plank Road, but they had to remove from this in haste very shortly after, for the enemy's cavalry made a dash towards that point. They were next established at houses on the right of the road. Next day (22nd) an attack was made by the enemy upon our position, but the 300 wounded that came in after this were considered as bringing but light labour, accustomed as the Medical officers had been to the heavier losses of a few days back.

A day or two of picket-firing and sharpshooting occurred after this, and was succeeded by an almost perfect quiet,

which reigned until the latter part of July. A great many changes of position took place during this time, and the men had heavy work with the pick and spade; but no fighting of any moment occurred. The men were as comfortable as if they had been in summer quarters, far from the presence of an enemy. Their camps were regularly formed and police duties generally well attended to. The shelter tents were raised from the ground in every case, at least a foot and a-half, and arbours were built over them to afford a more perfect seclusion from the sun's rays. Every regiment had a plentiful supply of clear cold water obtained from wells sunk by the men. By the way, rebel papers have been dilating largely upon the fearful sufferings of the Union Army in front of Petersburg on account of the impossibility of obtaining a sufficiency of water. Of late the larger part of our transportation, according to them, has been employed in carting over miles of country a supply from the James and Appomattox. Strange that they should be so ignorant of the resources of their own country; but more probably in this case the wish was father to the thought, and no sooner had the thought sprung into being than it was clothed in printers' ink as positive fact, and sent around the Confederacy to afford what consolation it might to its believing inhabitants. Even if the supply was so deficient, Yankee enterprise, with rivers so near, would never submit to the clumsy expedient of carting it in barrels over miles of country. It is true that during the latter part of June and the whole of July scarcely a drop of water was to be found on the surface; earth and air were pervaded with a hot and luminous dust, the continual glare of which made the eyes ache; but break this hard-baked and powdery crust, sink a shaft ten or twenty feet below the surface, and refreshing streams will rush from every crevice in its sides to fill it up. Almost the first thing that strikes the eye of the stranger in camp is the large number of stout poles projecting high above the tents, each having poised on its summit a long lever having a stone or round shot lashed to one extremity, while a large bucket depends from the other. Each of these indicates the site of a well, and is the means by which the soldiers bring the water to the surface, the loaded end being just sufficient to raise the bucket when filled. Another idea seems now to have struck the papers above-mentioned. The people are called upon to be of good cheer, for malaria in the autumn will certainly finish the Army of the Potomac. Intermittents will place all in Hospital that are not killed previous to getting there by congestive chill. I do not anticipate, however, such a cheerful state of matters as is prophesied. The grounds occupied by the troops are the heights around Petersburg, seized by assault in June last. It cannot be denied that small marshy pieces of ground occur here and there, and that away to the south-west our cavalry and the maps speak of the existence of large swamps; but the former are too insignificant, and the latter too distant to produce the wholesale sickness wished for by the enemy.

Potatoes, cabbage, pickles, and fresh bread were issued frequently to the men; but, notwithstanding this, sickness prevailed to a much greater extent than during the previous month, the constant action and excitement of which would seem to have afforded the men a safeguard against the inroads of disease. Diarrhœa formed more than two-thirds of the cases under treatment in the Field Hospital. A small percentage less than during the preceding month were cases of typhoid fever; a few were cases of well-marked acute dysentery; a symptom of a scorbutic taint, in many cases independent of, although often accompanying the diarrhœa, was very noticeable in the Hospital about this time. It consisted of œdema of the feet and ankles, which, after a few days' stay in Hospital, was removed, to return as soon as the man had been a couple of days with his regiment. The treatment adopted in these cases chiefly consisted in altering the diet, giving plenty of lemonade, and, perhaps, exhibiting quinine or the tincture of the sesquichloride of iron. These cases have all disappeared now.

The Hospitals at this time were in excellent condition. The tents were well trenched, arbours built on the exposed side, beds erected and seats in the shade for convalescents. The establishment was surrounded by a low fence, and all within this enclosure was kept scrupulously clean. The sinks were regularly covered up, and removed when occasion demanded. The ice in the houses in the vicinity sufficed to supply the sick until July 4, when the Medical purveyor was drawn upon.

On July 26 the troops marched by a circuitous route to a point of Rocks, where they crossed the Appomattox, and thence to Jones' Neck, where the crossing of the James was effected. They were pushed on so rapidly that the few ambulances permitted to follow each division were speedily filled, and straggling took place to an extent much greater than is usual even in day marches, where a hot sun combines with fatigue to overcome the men. Shortly after sunrise our skirmish line engaged the enemy at Strawberry Plains, the few wounded resulting being conveyed to a temporary Hospital established on the north bank, where the end of the lower pontoon rested. Here all dressings were applied and operations performed. In the course of the day they were removed to the south bank, to where the neck of land commences to increase in breadth. The wounded were sent to City Point in a steamer which had been telegraphed for; and on the evening of July 29 the corps marched back to Petersburg, where they arrived about ten minutes before the mine was sprung on the morning of the 30th. During the assault that followed, they suffered but lightly, as they were not actively engaged.

The troops went into camp on the ground they had occupied prior to the James' river movement. On August 12, shortly after mid-day, the corps commenced campaigning anew. They marched to City Point, which they reached after dark, and where they encamped to await the arrival of the transports which they believed were destined to carry them up the Potomac. A great many rumours at this time were rife concerning the doings of the rebel invaders of Maryland, and connecting these with their own movements, the troops had no doubt but that the Upper Potomac was their destination. Later in the evening the ambulance train brought up the rear with the sick, all of whom they deposited at the Corps Depôt. After a short rest to feed the horses, the train resumed its march, leaving the troops, and proceeding across the Appomattox to Bermuda Hundreds, where they encamped until the following day, when they pushed on to Jones' Neck. Here they effected a junction with the troops, who had on the 13th embarked and, during the night, been transported up the James to Deep Bottom, opposite the Neck—the scene of the demonstration of the preceding month. The men had been densely crowded on the vessels, but as the trip proved so short, they suffered only the temporary inconvenience. After disembarkation they were advanced across the plain over which they had skirmished on July 26, and through the woods to the west of the Newmarket-road, where they were placed in position. The day was oppressively hot, so much so that, although the men had only marched a couple of miles, a very large number were compelled, utterly exhausted, to lie down under shelter of the trees by the road side. Many were insensible, some in convulsions; four I saw dead. These were picked up shortly afterwards and carried to the rear. In the afternoon a thunder-cloud passed over the country, and the short, but heavy, shower that then fell was of inestimable value to the men. The wounded brought in from the skirmish line were carried to the north bank of the river, about two hundred yards below the lower pontoon bridge, where there was a landing, repaired with a view to its use in embarking whatever wounded the campaign might yield. Here the Hospitals became formed, one medicine waggon and one army waggon, loaded with flies and cooking utensils, having been permitted to cross the division train.

Active skirmishing continued during the greater part of the three following days. The wounded were sent to City Point in transports furnished by the Quartermaster. The steamer that reported for the wounded of the 10th Corps presented a remarkable contrast to those furnished for the 2nd Corps. They were elegantly fitted up Hospital boats, which ran regularly between the Corps and Fort Monroe, where their Depôt Hospitals were established. They, having been operating on the James for many months, had brought their transport system to perfection.

The second case of death from chloroform occurring during the campaign in the field Hospitals of this Corps took place about this time; the first was recorded at Cold Harbour on June 3.

1. Private C. M. O'D., 36th Wis. Vol., was wounded at Cold Harbour by a bullet, which, striking his right arm, shattered the head and upper half of the shaft of the humerus. The injury to the bone was so extensive that amputation was deemed the only resort. The patient was in good condition previous to the operation. He walked from his ward to the operating-table unassisted. A Hospital steward administered the chloroform, which was taken very quietly, and suspended when relaxation of the voluntary muscles showed the patient to be incapable of interfering by his movements with

the progress of the operation. The arm was removed; the arteries tied. A small vein at the bottom of the wound, by its oozing, only prevented the approximation of the flaps, when respiration was noticed to have suddenly ceased. Artificial respiration was of no avail, although persevered in for some time. About four hours after death the heart, on examination, was found very much enlarged, unaccompanied by thinning of the walls. Both sides were much distended with a grumous liquid, and a tough, greyish translucent clot which extended upwards into the great vessels. No other organ was examined.

2. Private Andrew W., 61st N. Y. V., was struck, on August 16, by a bullet, which shattered the distal phalanx of his thumb. Chloroform was administered in this case by one of the Medical officers. But a very small quantity had been inhaled (three fluid drachms, it is stated), when the patient became very much excited. A convulsion took place, during the continuance of which he died. The heart in this instance was small, affected with concentric hypertrophy, and so empty on both sides that the cavities were represented by mere fissures, the opposite walls being in contact.

These two cases are interesting, inasmuch as they present the heart in death arising from the same agency, in conditions so opposite; the vapour influencing the nervous centres in the one case to the induction of paralysis, and in the other to the formation and continuance of a rigid spasm of the heart.

(To be continued.)

GENERAL CORRESPONDENCE.

REGINA *v.* GOSS.

Letter from Dr. Gervis.

[To the Editor of the Medical Times and Gazette.]

Sir,—As you have seen fit to comment very severely upon the part I took in the recent trial of Dr. Goss, I must beg permission to state as briefly as possible my real connection with the case. I was called in by Dr. Llewellyn on the 20th of August, at about 11 p.m., to assist him in the delivery of Mrs. Brazier. I found her extremely low and exhausted, and, on a vaginal examination, ascertained that the pelvis was undersized, that a shoulder was impacted, that the liquor amnii had escaped, and that the vagina was hot, tender, and swollen. After the administration of stimulants, we put her under the influence of chloroform, which enabled me to introduce my hand, and after some little time turn and complete the delivery. I did not see her again until some thirty-six hours before her death, when I ascertained from Dr. Llewellyn that, although at first she had gone on pretty well, she had never fully rallied from the exhausted condition in which I had found her on the night of her delivery, and that a few days previously to this, my second and last visit, symptoms of local inflammation had occurred. This local inflammation, which the post-mortem examination proved to be of but limited extent, sufficed, however, to turn the scale against her, and she died, as stated, on the fifteenth day after her delivery. Of her death I had not heard until I was informed, to my great surprise, that an inquest was to take place; and this fact I am specially desirous of bringing prominently forward, as an unwarrantable attempt has been made to impute to me a share in the instigation of the Coroner's inquiry. On the Wednesday evening after Mrs. Brazier's death, between 10 and 11 o'clock, Dr. Llewellyn called, and, stating that there was to be a post-mortem examination on the following morning at 8 o'clock, asked me if I would like to be present. I, of course, willingly assented. The post-mortem was made by Mr. Bolt, Dr. Llewellyn's partner, a gentleman personally unconnected with the case; and while I sincerely regret that Dr. Goss had not been informed of the intended post-mortem by the Coroner's officer, and so was not present on the occasion, I am truly glad that the results of the inspection rendered it amply evident that no connection could be established between Mrs. Brazier's death and the delay that had occurred in her delivery. At the inquest my evidence was wholly favourable to Dr. Goss—so much so, that on Mr. Payne saying, "Dr. Gervis, because the person involved in this inquiry happens to be a Medical man, you are not on that account to screen him," the remark elicited expressions of approbation from several of the jury. And here I must beg to state, with reference to your remarks on my evidence, that I certainly did *not* instruct the jury "that the loss of two hours might possibly have caused a death which took place a fortnight afterwards," but, on the contrary, I distinctly asserted that I could not say that if she had been delivered at 9 p.m. there would have been any difference in the final result; in other words, that she might have died just the same, whether delivered at 9 or 11. This evidence ought to have been sufficient to have at once stopped the case, as it afterwards proved to be at the trial. I have but to add that my appearance on the side of the prosecution simply arose from the fact that I happened to be the Physician called in to complete the delivery; that I was therefore summoned to the Coroner's inquest, and thence bound over to appear at the sessions; that at each inquiry my evidence was sincerely favourable to Dr. Goss; that I was both surprised and pained at the verdict brought in by the Coroner's jury; and was truly pleased to be able, at the conclusion of the trial, cordially to congratulate Dr. Goss on the result.

I am, &c.,

Henry Gervis, M.D., Lond.,
Assistant Obstetric Physician to St. Thomas's Hospital.
12, St. Thomas-street, S.E., Oct. 4.

*** We are glad to publish Dr. Gervis's vindication of his conduct, and to learn that his agency in the whole proceeding was limited as he states. At the same time, we must leave it to our readers to judge whether the extracts we published from Dr. Gervis's evidence before the Coroner do not entirely warrant our comments. We will not dispute as to whether the phrase used by Dr. Gervis were, as reported in the Coroner's depositions—"*I cannot say whether*," or, as he himself asserts, "*I could not say that.*" It is clear that he did not, as we think he ought, clearly state to the jury that it was utterly improbable that the short delay in delivery caused by Dr. Goss's leaving could have had any influence on the fatal result.

MEDICAL NEWS.

Royal College of Physicians of London.—At a general meeting of the Fellows, held on Friday, September 30, 1864, the following gentlemen, having undergone the necessary Examination, were duly admitted Members of the College:—

Cornelius Benjamin Fox, M.D. Edin., Truro, Cornwall; Thomas Stevenson, M.B. Lond., Guy's Hospital.

At the same meeting, the following gentlemen were reported by the Examiners to have passed the Preliminary Examination in the subjects of General Education:—

William Bernard Boyd, Wells, Somerset; Alexander Fox, Stoke Newington; Thomas Joshua Gittens, Barbadoes; Frederick George Guy, Shoeburyness; Anthony Alfred Henley, Ringwood; Edward Withers Minter, Southsea; George Hargrave William Broughton Parker, King's College; Henry Sutcliffe, Rochdale.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, September 29, 1864:—

David Chas. Lloyd Owen, Smethwick, Birmingham; George Fowler, Jun., Newington-terrace, Kennington-park; Fenwick Metcalfe, Inglethorpe-hall, Wisbeach; Geo. Richard Turner Phillips, Leinster-square, Hyde-park; Henry John Ryder Bush, Warwick-street, Regent-square; Henry Thomas Ryder, Upper Fitzroy-street, W.; Joseph Birt, Grove House, Leamington.

The following Gentleman also on the same day passed his First Examination:—

Charles E. H. Rogers, Westmeon, Petersfield.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Baker, Slade Innes, M.R.C.S. Eng., has been appointed one of the Surgeons to the Dispensary, Abingdon.

Clark, Thomas E., M.R.C.S. Eng., has been elected Surgeon to the Bristol Royal Infirmary.

Corley, Anthony H., M.D., L.R.C.S.I., has been appointed one of the Lecturers on Descriptive and Surgical Anatomy at the Carmichael School of Medicine, Dublin.

Hills, Rowland, M.R.C.S. Eng., has been appointed Medical officer for the Conisborough District of the Doncaster Union.

Nicholson, Joseph M., M.D. St. And., has been appointed Medical Officer for the New Workhouse of the Holbeck Union, Yorkshire.

PRANCE, CHARLES R., M.D. Edin., has been appointed Senior Physician to the Public Dispensary, Plymouth.

SMITH, WILLIAM, M.R.C.S. Eng., has been appointed Resident Surgeon to the Birmingham Lying-in Hospital and Dispensary for Diseases of Women and Children.

SNELL, E., M.R.C.S. Eng., has been elected Resident Medical Officer to the Isle of Man General Hospital and Dispensary.

TAYLOR, S. T., L.R.C.P. Lond., has been elected Resident Medical Officer to the Norwich Public Dispensary.

WILTSHIRE, ALFRED, M.D. St. And., has been appointed one of the Physicians to the Islington Dispensary.

WITHERBY, WILLIAM H., M.R.C.P. Lond., has been appointed one of the Physicians to the Islington Dispensary.

DEATHS.

BAILEY, SAMUEL, Surgeon R.N., at Wynberg, Cape Town, Cape of Good Hope, recently.

CLARKE, JOHN, Surgeon 15th Regt., at Bermuda, West Indies, on September 4.

CURRAN, FREDERICK A., M.B. Dub., R.N., late Assistant-Surgeon H.M.S. *Rattlesnake*, recently.

DAVIS, JOHN, M.D., Surgeon R.N., recently.

FRANKLIN, HENRY, Surgeon-Major, at Bermuda, West Indies, on July 26.

GIBSON, THOMAS, M.R.C.S. Eng., at Paradise-street, West Bromwich, on September 22, aged 35.

HARGRAVE, WILLIAM, M.B. Dub., at the Adelaide Hospital, Dublin, on September 20, aged 56.

HODGES, EDWARD, M.D. St. And., at 6, Kensington park-road, Bayswater, on October 2, aged 55, formerly of Bath.

LODGE, HENRY S., Assistant-Surgeon 2nd Regt., at Bermuda, West Indies, on August 31.

LOVELL, C. H., M.D., at The Green, Tottenham, Middlesex, on October 5, aged 75.

LOW, WILLIAM CROSIER, Surgeon, on September 29, aged 25. He had served on the Medical Staff of General Garcia in Mexico.

MCMUNN, JOHN, L.K.Q.C.P.I., at Rutland-square East, Dublin, on September 20, aged 66.

MILROY, DAVID, M.D. Edin., Assistant-Surgeon 30th Regt., at Bermuda, West Indies, on September 3.

O'BRIEN, JOSEPH, L.R.C.S.I., Assistant-Surgeon R.N., recently.

OSMOND, THOMAS, Surgeon, at Thorpe, Essex, on September 14, aged 86.

O'TOOLE, WILLIAM H., M.D., Assistant-Surgeon R.N., recently.

ROSCOE, RICHARD, M.D., of London, at Humberstone, Leicestershire, on October 3, aged 71.

SALTER, RICHARD F., M.R.C.S. Eng., at 94, Richmond-road, Bayswater, aged 53.

SHELSWELL, DANIELL, M.R.C.S. Eng., at Wolverhampton, on September 28, aged 34, formerly of Lutterworth.

SILVESTER, THOMAS, Surgeon, at the Beeches, West Bromwich, Staffordshire, on September 25, aged 76.

VON IBELL, DR., at Ems, Nassau, on September 28. Aged 50.

WATERWORTH, CHARLES ALBERT, M.D. St. And., at Newport, Isle of Wight, on October 3, aged 24.

WILKINSON, JOHN H., M.R.C.S. Eng., at Oldham, Lancashire, on September 21, aged 54.

WILLMOTT, HENRY S., M.R.C.S. Eng., Assistant-Surgeon R N., recently.

WILSON, HENRY, F.R.C.S. Eng., at Runcorn, Cheshire, on September 15.

WRIGHT, ALEXANDER, F.R.C.S., at Boerne, Texas, on June 28, formerly of Norton, near Sheffield.

YOUELL, GEORGE, L.R.C.S.I., Staff Assistant-Surgeon, at Bermuda, West Indies, on September 2.

RECOVERY OF DR. CHAMBERS.—We are glad to hear that Dr. T. K. Chambers was present at the Introductory Lecture at St. Mary's Hospital, that he appears to have quite recovered from the effects of his late illness, and to be quite fit for Professional duties.

PROFESSOR OWEN, F.R.S.—This distinguished physiologist delivered the first of a course of four lectures in the Temperance Hall, Birmingham, on Monday last on "The Classification, Geographical Distribution, and Geological Relations of the Class Mammalia." The great hall was filled in every part.

UNIVERSITY OF CAMBRIDGE.—Dr. Humphry gives notice that his course of lectures on Human Anatomy and Physiology will commence on Friday, October 14, at one o'clock, and be continued daily.

A FEMALE MEDICAL SOCIETY.—On Monday, October 3, a meeting of the promoters of a Female Medical Society was held at the Hanover-square Rooms for the purpose of hearing an inaugural lecture by Dr. James Edmunds. This Society is said to be formed for the purpose of facilitating the admission of women into the Medical Profession, with the ultimate intention of establishing a female Medical school in London, where midwifery will be the primary object of attention. A course of lectures on midwifery and diseases of women and children, by Dr. Murphy, of the University College, will be commenced on the 10th instant. A supplementary course of lectures upon general Medical science will be delivered by Dr. Edmunds, commencing on the 1st proximo.

STATUES TO LAENNEC AND DUPUYTREN.—The Medical Profession in France seems nearly as backward as ourselves in commemorating its celebrities. It was only the other day that a statue was erected to Larrey, and the Medical Association has just determined to organise a subscription for a similar tribute to the memory of Laennec. This again has called to mind the fact that no memorial exists of Dupuytren, notwithstanding his generous legacy of 200,000 francs for the foundation of the Museum which bears his name, and a chair of pathological anatomy.

THE AMERICAN MEDICAL TIMES.—We regret to find that our American prototype has suddenly closed its career without even waiting for the termination of the volume and the year. Owing to the vast increase in the prices of everything concerned in the production of a weekly periodical, it has been published for some time past at a loss, and the Messrs. Baillière, not having received a sufficiently general response to their proposition of continuing the journal at an increased price, have been compelled to bring it to an abrupt close. All who have been in the habit of perusing its pages must regret this, for they were characterised by a liberal and gentlemanly tone, a freedom from prejudice, and an amount of original and useful contributions that certainly deserved better encouragement.

AN ENGLISH BONE CAVE.—The Midland Scientific Association, acting under the presidency of Sir Oswald Moseley, have undertaken to clear out the floor of Thor's Cave, a cavern situated near Wetton, in Staffordshire, which promises to be rich in glacial remains and in antiquities. This cave is on the property of the Duke of Devonshire; and operations have already commenced. Facts of great importance to the study of man are coming to light in this Saxon cave.—*Athenæum.*

NEW STEP IN PHOTOGRAPHY.—A German named Wothly has recently discovered a method by which permanent photographic prints can be taken. The method consists in the use of a double salt of uranium—the name of which is not at present made public—instead of nitrate of silver, and of collodion instead of albumen, in the preparation of the paper for printing positives. The paper is first rendered sensitive by being combined with the salt of uranium, and is then covered with a film of collodion. The advantages of this process, called after its inventor the Wothlytype, are the exceeding ease with which it is worked—the certainty and delicacy of its results, the impressions being all alike—the permanency of the sensitive paper, which will keep for weeks ready for use—and the indestructibility of the printed image, which will stand an amount of exposure to sun, water, and air which no other photographs will bear. The process has been purchased from the German inventor by an English photographic company.

CAMBRIDGE.—SIDNEY SUSSEX COLLEGE, 1864.—There will be an examination at this College on Tuesday, October 11, 1864, of students who intend to commence residence, when (provided fit candidates present themselves) the following Scholarships will be filled up:—

	Value per annum each.
(a) One for Classics and Mathematics combined	£80
(a) One for Classics only	£40
Two for Mathematics only	£40
Two for Natural Science or Mathematics	£40
(b) One or more Johnson Exhibitions	£32

Sizars will also be appointed at this examination. Two Scholarships may be held by the same person, and each will be tenable for three years at least, or until promotion to another of greater value. SUBJECTS:—*Classics*—Cæsar de Bello Gallico, Books VI., VII. Xenophon Anabasis, Books III., IV., V. Passages will also be set from other authors, as also prose and verse composition. *Mathematics*—Arithmetic, Algebra, Euclid, Plane Trigonometry, Conic Sections (Geometrical and Analytical). *Natural Science*—Electricity, Chemistry, Geology, Anatomy. N.B.—All candidates will be expected to pass in both Classics and Mathematics. Books recommended by the examiners for the Natural Science Scholarships:—*Electricity*—Lardner and De la Rive. *Chemistry*—Graham, Fownes; Abel and Bloxam's Handbook; Bowman's Practical Chemistry. *Geology*—Lyell's Principles and Jukes' Manual. *Anatomy*—(Human Osteology and General Anatomy); 1st vol. of Quain's Anatomy, by Sharpey;

(a) Limited to candidates under 20 years of age.

(b) Preference to candidates from Oakham or Uppingham Schools.

Gray's Anatomy; Holden and Ward on the Bones. Every candidate must send in to the tutor (the Rev. J. C. Williams Ellis) on or before October 10, his name, the date and place of his birth, the names and residence of his parents, the place of his education, and a certificate of good conduct from a graduate member of the University or a beneficed clergyman. Candidates must present themselves in the College Hall, on Tuesday morning, October 11, 1864, at nine o'clock.

Death of Dr. Henry Stewart Lodge, M.B., of the 2nd Regiment.—It is our painful duty to announce the death of this estimable and talented young officer, on August 31, in Bermuda, from yellow fever, caught in the discharge of his Medical duties, which were at the time particularly onerous and severe. Dr. Lodge literally fell a martyr to his anxiety for his patients. When the disease attacked him he had lost the strength to resist it, and after four days' illness his exhausted frame succumbed. He was beloved by his brother-officers and the soldiers under his care, and his early decease has caused them deep and real grief. Letters from the station describe the intense concern of the latter when they learned that their friend had been attacked. "I don't believe," writes one of his former colleagues, "an officer could be more beloved and regretted by his men and brother-officers." Another says—"I shall never get an Assistant-Surgeon equal to him to serve with me again;" and then adds "I hear it was most edifying to see the poor soldiers rushing into his tent when they heard that he was dying; they all knelt round his bed and prayed. He was beloved, and is now regretted by every one in the regiment. . . . He was buried in a small cemetery with military honours." Such powerful testimonies to the ability and worth of Dr. Lodge will, we trust, serve as a solace to his mourning friends. He perished nobly in the performance of duty, and his memory is most respected by those who knew him best as an officer and a man. There can be no doubt that had, Dr. Lodge lived, he would have eventually risen to a high place in his Profession. The deceased was son of the late Rev. William Lodge, Rector of Killybegs, in the county of Donegal.—*Evening Mail.*

Death under the Influence of Chloroform.—A youth named John Downing, aged 15, an in-patient of the United Hospital, Bath, died on Saturday while under the influence of chloroform, which had been administered to him with a view to a Surgical operation. An inquest was held at the Guildhall on Monday, before Mr. A. H. English, coroner. From the evidence of Mr. R. T. Gore, Surgeon, it appeared that the deceased, who was the son of a small farmer at Seend, near Melksham, was admitted to the Hospital about a month ago with a crippled leg, with which he had been afflicted from his birth. It was found that nothing could be done for his benefit but amputation. This was communicated to deceased's friends, who consented to that step being taken, and he himself expressed his willingness thereto, and also a wish that chloroform should be given him while the operation was being performed. Mr. Gore having minutely examined him, and found that he could bear it, arrangements were made for the administration of chloroform, and a smaller dose than usual was adminisiered by Mr. Gaine, Surgeon-Dentist to the Hospital. The administration had the desired effect, and the operation went off well, and was to all intents over, when it was discovered that deceased's circulation had stopped. Every restorative remedy was promptly applied, but without avail. Mr. Teale, the House-Surgeon, having corroborated the evidence of Mr. Gore, and stated the result of a post-mortem examination he had made, the jury returned a verdict to the effect that deceased died from chloroform causing an arrest of circulation through misadventure.

Miss Nightingale on the Australian Aborigines.—At the final sitting of the Health Section of the Social Science Association, at York, a paper, contributed by Miss Nightingale, "On the Health of the Aboriginal Races in Australia," showing how fatal are the habits of civilisation to the health of the savage, was read. As soon as native habits and customs begin to undergo change from European influences, the work of destruction commences, the native sickens under the pressure of new conditions, and few who sicken are restored, even in circumstances favourable to recovery. From evidence placed at her disposal by the Foreign Office, Miss Nightingale says:—"The native appears to have little or no chance from the moment he sets foot in a house or a Hospital and comes under Medical treatment. His instinct is to fly from civilisation, to get back to the bush, where in a few weeks he is again strong and healthy. In the training of the natives by the method adopted by the Catholic Bishop of Victoria, the direction given to the faculties of the children is more towards physical improvement and the formation of better physical and moral habits than towards mere head-knowledge." Instances were given by Miss Nightingale of the marked success of this method, which is founded on sound physiological principles. It remained, however, to be seen whether it would save a remnant of the rapidly disappearing race, and raise them from almost the lowest condition of human existence.

The Amenities of Medical Practice. — At the Thames Police-court on Monday, October 3, William Payne, a tall and powerful man, was brought before Mr. Paget, charged with assaulting Mr. Grant, a Medical Practitioner, of Millwall, Poplar, and William West, a police constable. On Saturday night the complainant, after a fatiguing day and visits to a great many patients, had laid down on a sofa to seek a little repose, when he heard a loud knock at his door. On opening it he saw the prisoner, who requested him to visit a patient who had fallen down an area, broken his neck, and was on the point of death. Mr. Grant, observing that the prisoner was in liquor, said he could not leave home until a fee of 5s. was paid. The prisoner said that the money would be paid directly the Surgeon reached the house where the patient was. Mr. Grant refused to leave home without his fee at such a late hour, and the prisoner became very noisy and violent, and attacked Mr. Grant. He struck him, and seized him by the throat, and, according to Mrs. Grant's account, her husband was nearly strangled. The whole household, including Mr. Grant's sister, brother, and wife, who were all injured, were barely sufficient to secure the prisoner, who was ultimately given into the custody of West, who observed blood on the neck of the Surgeon. The constable walked the prisoner about thirty yards towards the station-house when he became very violent, struck the constable in the face, and laid on the ground. In this position the prisoner remained for half an hour, until other police-constables arrived and carried him to the station-house. In answer to Mr. Paget, the constable said no serious accident took place. He saw the man said to be injured. He was not injured. Mr. Paget said no one had any right to knock at a gentleman's door because he happened to be a Surgeon, and demand him to visit a patient elsewhere. Medical men generally did leave home and visit patients when called upon to do so, but there was no legal compulsion. He would not blame Mr. Grant for refusing to leave home without his fee on the invitation of a drunken man. He fined the prisoner 20s., which he paid.

Liverpool Royal Infirmary School of Medicine.—Distribution of Prizes.—The distribution of prizes to the successful competitors for those offered in connexion with the above Institution took place on Saturday afternoon, in the lecture-hall of the school, Dover-street. The Rev. Dr. Howson, Principal of the Liverpool College, presided; and amongst the gentlemen present were Mr. John Cropper, Mr. Long, Dr. Collingwood, Dr. Edwards, Dr. Cameron, Mr. Fletcher, Dr. Nevins, Dr. Grimsdale, Dr. Whittle, etc. The rev. Chairman opened the proceedings by calling upon Mr. Long to deliver the introductory address. We regret that our space does not allow us to publish Mr. Long's very excellent and thoughtful address *in extenso*. We extract, however, the following, in which he strikes the balance between the heroic and expectant methods of treatment:—"It is now more than a third of a century since I first entered the ranks of the Profession. During this comparatively short period I have witnessed many changes in it. I have seen many epidemic delusions of the mind as well as epidemic diseases of the body. I have witnessed strange revolutions in Medical practice. . . I have seen the rise and declension of many 'pathys,' and as many 'isms,'—heroic treatment and expectant,—alcoholismus and nihilismus,—all, no doubt, at times and in certain cases useful, but none of universal application. . . This nihilismus has arisen naturally out of that perversity which makes men rush from one extreme to the opposite, or out of that infirmity which makes us unable to strike the balance between two independent truths. Our forefathers put too much faith in drugs; and we by way of compensation get rid of one error by running into another; and, though doubtless our ancestors erred by an over-officious and meddlesome line of practice, and acted as if their medicines possessed specific virtues (which few can lay claim to), and as if no natural process could go on without help, giving medicines whether they were wanted or not, these no doubt being often injurious, though happily

as often inert, still it is true that there are diseases and conditions in which the effect of drugs is active and beneficial; and when we see the enormous power possessed by medicines on the animal economy, especially on the nervous system, we shall be wise not to sanction opinions which set at nought these instruments, and leave the young members of our Profession to despise them, instead of seeking out for themselves a thorough knowledge of their virtues." After the conclusion of the address, the Chairman distributed the prizes to the successful competitors. The following is the list of prizes:—Class of Surgery, Mr. Warburton, Medal. Medicine, H. G. Samuels, Medal; H. F. Fisher, Certificate. Junior Anatomy, D. Evans, Medal; L. V. Mapei, Certificate. Chemistry, R. Hughes, Medal; R. A. Mowll, Certificate; H. F. Fisher, Certificate. Materia Medica, H. F. Fisher, Certificate. Midwifery, etc., J. E. Burton, Medal. Practical Chemistry, H. F. Fisher, Book. Medical Jurisprudence, H. F. Fisher, Book. After some remarks from the Rev. Chairman, and the usual votes of thanks, the meeting separated.

THE TUNBRIDGE WELLS INFIRMARY AND DISPENSARY.—PUBLIC RECOGNITION OF THE SERVICES OF DR. WILMOT.—A special meeting of the governors of this Institution was held on August 29 in compliance with a requisition signed by forty-four governors, who announced that the following resolution would be proposed:—That—"Deeply sensible of the value of the very long and eminent services rendered by Dr. Wilmot to the Tunbridge Wells Dispensary and Infirmary, extending over a period of nearly thirty years, he be requested to accept the office of Consulting Physician to that Institution, and to remain, *ex officio*, a member of the Committee and of the Medical Council; and that this resolution be a special rule for purposes therein mentioned." The Committee communicated Dr. Wilmot's letter of resignation to the governors assembled, and the result of the meeting is shown in the following correspondence:—

"Tunbridge Wells, August 30, 1864.

"My Dear Sir,—A special meeting of the governors of the Infirmary was held yesterday, the 29th inst., to consider a resolution proposed by the Committee (sic) in consequence of your resignation of the office of Physician to the Institution. Having been requested to take the chair on that occasion, I have now the honour of transmitting to you a copy of the resolution which was passed by the governors at the meeting referred to. I need hardly tell you that this resolution was adopted unanimously and with the utmost cordiality, the governors feeling most anxious to mark the sense of your services in some special and unusual manner, and hoping also by these means to secure a continuance of your interest in that institution to the welfare of which you have so greatly contributed, and to which for a period of nearly 30 years you have devoted so much valuable time and skill. Fully concurring both in the resolution and in the sentiments of esteem and approbation expressed by every governor present,

"I am, my dear sir, yours very faithfully,

"FRANCIS G. MOLYNEAUX, Chairman.

"To Dr. Wilmot."

"Tunbridge Wells, September 1, 1864.

"My Dear Sir,—I beg to acknowledge the receipt of your letter of the 30th inst., enclosing a copy of the resolution passed by the governors of the Infirmary on the 29th inst., and to express my sincere thanks to yourself as chairman of the meeting for the very kind terms in which you have communicated the resolution: at the same time asking you to do me the favour of conveying to the governors how deeply sensible I am of the confidence they have been pleased to repose in me by requesting me to accept the special and unusual appointment of Consulting-Physician to the Infirmary, a request with which it would be impossible for me to refuse compliance. "I am, my dear sir, yours very faithfully,

"The Hon. Francis G. Molyneaux." "J. B. WILMOT.

BOOKS RECEIVED.

The Medicine and Medical Practice of the Chinese. By James Henderson, M.D., Shanghai. 1864.

*** A very interesting pamphlet. Amongst other things the writer takes a sensible view of the effects of opium smoking, which, though abused by some, need not be universally denounced. His observations on narrow streets in malarious climates are also worth reading, though not conclusive.

Edinburgh Veterinary Review. September, 1864. Edinburgh: Maclachlan and Stewart.

*** Contains an article on worms in blood-vessels of horses; also several cases of obstructed parturition in animals.

The Geological Magazine. Part III. London: Longman and Co. 1864.

*** Solid hard work is here exhibited. An interesting letter from Surgeon A. Leith Adams, H.M.'s 22nd Regiment, on the Maltese caves and elephant bones.

On a Form of Bronchitis (simulating Phthisis) which is peculiar to certain branches of the Potting Trade. By Charles Parsons, M.D. Edinburgh: Maclachlan and Stewart. 1864.

*** A good contribution to the history of unwholesome trades, and to the pathology of the lungs.

Bulletin de L'Académie Royal Médecine de Belgique. Tome 7. Nos. 1 and 2. 1864. Bruxelles.

*** Contains a discussion of the question whether Military Ophthalmia be disease depending on *general* conditions, or on certain *specific* granulations, derived from Egypt.

NOTES, QUERIES, AND REPLIES.

"He that questioneth much shall learn much."—*Bacon.*

Dr. R. Lee's letter shall have early insertion.

Mr. Porter's communication, and his donation of 5s. to the Griffin Testimonial Fund, have been received.

Old Mortality.—John Ash, M.D., died in 1796, and was buried at Kensington. William Cheselden was interred in Chelsea Hospital on the 19th April, 1752. Dr. Dellenius was buried at St. Peter's-in-the-East, Oxford, where a monument is erected to his memory. John Hunter expired suddenly in St. George's Hospital on the 16th of October, 1793, was buried in the vaults of St. Martin's-in-the-fields, where his coffin was discovered by Mr. Frank Buckland, and re-interred at the expense of the College of Surgeons in Westminster Abbey. Sir Theodore Mayerne was also buried at St. Martin's-in-the-fields. Sydenham left Oxford to serve in the Parliamentary army.

FEMALE MEDICAL SOCIETY.

Dr. James Edmunds assures us that the address delivered by him on the 3rd inst. at the Hanover-square Rooms has been reported in the daily papers in such a way as to lay open to serious misconstruction his sentiments with respect to the Profession, and his reasons for taking part in this movement.

He is reported "to have described the present deplorable state of the Medical Profession as a reason for admitting female Practitioners into the ranks of practice,"—at least this is the suggestion which most of the reports convey. He desires, therefore, to state that he has never countenanced any of the nasty twaddle with which some persons have encumbered this movement; while, on the other hand, he has, on more than one occasion, publicly asserted that although the science of Medicine, like all other pursuits, fails to eliminate from its disciples the frailties of human nature, yet that if we take the Medical Profession and compare it with its sisters, the priesthood and the law, we cannot but see that our Profession, as a body, has been characterised by a singular purity of Professional conduct; while on all hands it is universally felt that for nobleness and disinterestedness of personal devotion the Profession of Medicine stands almost alone.

[*** As we have said again and again, if the public like to employ women Practitioners, let them. That is their affair. We do not in the least doubt which sex women prefer on a pinch. But let it be done on fair grounds. Rumours have reached us that some of the founders of this very "Female Medical Society" have indulged in some of the "nasty twaddle" referred to. We confess that we doubt whether the Society was set up by discreet and sober men, and we advise women, as we have done before, to learn to do their own well before attempting men's work.]

THE GRIFFIN TESTIMONIAL FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following subscriptions have been further received on behalf of the above fund:—

T. H. Fenn, Esq., Sudbury, 10s. 6d.; Ed. Bicknell, Esq., Coventry, £1 1s.; Dr. H. Clark, Sedgefield, 10s.; Dr. Jas. H. Dowling, Cerne, 5s.; Dr. S. H. Steel, Abergavenny, 10s. 6d.; amount previously announced, £64 16s. 6d.; received at the *Lancet* office, 3s. 11s. I am, &c.

ROBERT FOWLER, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, Oct. 5.

TARTAR EMETIC IN STRUMOUS OPHTHALMIA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Could your reporter state the dose, or, what would be better, the exact formula, in which Mr. Chesshire is said to employ tartar emetic in the treatment of strumous and other forms of ophthalmia at the Birmingham Hospital; the efficacy of a remedy often depending on the form in which it is administered. I am, &c.

August 29. AN OLD SUBSCRIBER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In reply to your correspondent, "An Old Subscriber," who desires to know the dose and the exact formula, in which I have prescribed tartarised antimony, in the treatment of strumous and other forms of ophthalmia, I beg to say that I have given it in doses varying from 1-12th to 1-20th of a grain, according to age, and I have generally given it in combination with opium, to lessen the nauseating effect of the remedy. With the antimony treatment, when the photophobia is severe, the application of one or two leeches to the lower lids is attended with marked improvement. When the photophobia has been removed I have usually had recourse to tonics, but in consequence of a recurrence of the photophobia I have frequently been obliged to return to the antimony. The formula I generally use is the following:—℞ Vini antim., ʒiij.; tinct. opii, ♏xx.; syrupi aurantii, ʒss.; aq. camphoræ ad Oss.; M. fiat. mist. capiat, ʒss. ter in die. I am, &c.

EDWIN CHESSHIRE,

Senior Surgeon to the Birmingham and Midland Eye Hospital.

Labour with Unruptured Hymen.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The insertion of the two following cases may prove interesting to some of your readers, and will oblige. I am, &c.

Waterbeach, Cambridge, September 27. T. W. W. Watson.

Case of Labour with Unruptured Hymen.

Mrs. H., aged 19, sent for me in her first labour at 10.30 p.m. on August 24, 1864. I was in attendance upon another case, but visited her at 11.30 p.m. On proceeding to examine, I found I was at first unable to pass my index finger into the vagina. The cause of obstruction I at once discovered to be an unruptured hymen. After considerable trouble I was enabled to pass half my finger, and made out the presentation to be natural. I then left her in charge of a midwife, and on returning at 3.30 a.m. the child was born, but placenta retained, being adherent. In removing it I had an opportunity of manually observing that the hymen had given way on the right side, and was hanging down in a loose flap nearly an inch in thickness. She was kept weak by a purulent discharge from the vagina, partly caused by the lochia coming in contact with the edges of the wound, but ultimately made a good recovery. I ordered a large bread-and-water poultice, which gave great relief.

Variola succeeding Scarlatina.

Mrs. A., having on the eighth day of her return from Yarmouth noticed some spots on different parts of her body, sent for me. On arrival I found the thorax, arms, forearms, and thighs full of the eruption of scarlatina. Ordered mist. salin and a purge. On the fourth day of attendance the eruption disappeared, but was succeeded immediately by that of variola. The parts most affected by scarlatina were least so by variola, and *vice versa*. On the fourteenth day from the first appearance of the pustules there was none to be seen. I gave her a simple saline, followed by a light tonic. Was this a case of infection from the watering-place named? and is there a chance of the fœtus suffering, as this patient is six months advanced in pregnancy?

Army Medical Department.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Let Irish grinders, assisted by a Professor of Military Surgery, represent, as they please, to their classes, the desirability of entering the army, either for their own advantage or the benefit of third-rate men, with whom Dr. Gibson is said to have declared himself satisfied, and who could never expect to succeed under a better system of competitive examination; there exists a fact, one of those stubborn things which cannot be denied, and which young men had better remember before committing themselves—viz., that there is no promotion for them; they enter as Assistant-Surgeons, and so they must remain.

This is no sensational declaration, no groundless assertion, it is a melancholy truism.

Let us take the Army List for October, 1864, and commence with L. Armstrong, 13th Hussars, April 7, 1854, and terminate with D. D. Heather, 1864, we have the goodly number of 699 Assistant-Surgeons to be promoted. Divide that number by 30, a liberal annual allowance of men disposed of, and we have twenty-three years of service before Heather can be a Surgeon; surely this state of things cannot continue, it must be remedied. How?

The War Office of late have taken three steps in the right direction, which come under the head of "Ceasing to do evil;" let them now "Learn to do well;" promotion must be expedited; seniors must be induced to move on out of the way of juniors.

In the first place the appointment of Director-General should be, as other staff appointments are, for five years only; secondly, twenty years' service should be considered ample service for retiring; and, thirdly, Assistant-Surgeons after twelve years' full-pay service should obtain the brevet rank of Surgeons, with all pay and allowances belonging to the rank, without which the rank would be a mockery. There is nothing very outrageous in these proposals; they are common sense and justice, and unless acted on the present stagnation of promotion is not likely to be removed, or hostility to the service cease. Nothing could be more unfounded than the assertion "that the severity of the examination" prevented young men joining the service, for in the year 1860, when the examinations were most stringent, the number of candidates always far exceeded the vacancies, and so they would have continued had not faith been broken, and the benefits of the warrant of 1856 been withdrawn; young men of talent and education *never* shrink from examinations in consequence of severity; they rather glory on entering the lists on such occasions; but then the reward must be equal to the struggle.

Why does not Dr. Gibson, who admits the right, cause to be acknowledged in the Army List the Medical qualifications of those who happen not to be possessed of the title of M.D., but are Licentiates of one of the Colleges of Physicians? The letters C.P. might be placed after their names. I am, &c.

An Ex-Assistant-Surgeon.

The Easy Doctorate.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Permit one last word in reference to this subject. The object of my first letter to your journal was to hold up to reprobation the pernicious tendency which is so rife of Medical men (mostly in general practice), procuring degrees for which previous study and professional education have not qualified them. I said, and am obliged to repeat, that it is a bad sign, indicative of bumptiousness, and not of an honest desire to seem what we really are; that the clamour among certain general Practitioners to obtain admission to the College of Physicians of London after a formal, perhaps sham, examination on payment of fees was discreditable to us; and that the rush for degrees to St. Andrews and such universities was scarcely better.

No one wishes less than myself to speak except in terms of exact truth upon this matter,—every word which is incorrect must tell against my argument. My knowledge of St. Andrews arose first during my studentship at Edinburgh, which ended in 1845. I never was at St. Andrews in my life. I knew personally Professor Reid and several members of the then Examining Board at St. Andrews, and would appeal to such of them as survive, and to the lists of the graduates of that time, to confirm my statement, that scarcely any men then went to St. Andrews but unfortunates, who had failed elsewhere to obtain degrees, or who had from conscious inferiority avoided going to examinations elsewhere. Thus much as to students going to St. Andrews. At that time a few men from practice went up also, of whom I speak with less exact knowledge. We can only judge of these by the lists, and it is not speaking uncharitably to say that they have not been nearly the best of the general Practitioners.

My protest arises from a strong impression that this amazing increase of College of Physicians' Licentiates and easy university graduates speaks of no advance in the general qualifications of candidates. Dr. Parkes's unquestionable authority says so, and the same thing was allowed by several of the Medical Council in the course of their debates on Medical Education. It shows, it is to be feared, more self-assertion than sterling merit on the part of the great body of the new Licentiates and Graduates.

Your correspondent "Joannes, M.D. St. Andrews," writes with a much stronger feeling on the subject than your humble correspondent can pretend to. He has committed himself to the course I condemn, and feels annoyed excessively at my holding up the mirror to him. On only one point will I reply to him. He is mistaken in supposing I meant to convey that these degrees were cheap in a pecuniary sense. What I meant was cheap in the sense of intrinsic value, and hence the reason of my reprobation of them.

If your correspondent and such as have with him given their attention to obtaining these honorary distinctions will give themselves to fair and earnest work in cultivating the science and art of Medicine they may yet earn their diplomas. They will do something yet to advance physic if mindful of their College vows; they will try to achieve a higher style of diagnosis, and apply themselves to investigate the vast *terra incognita* of disease which surrounds us. More credit will accrue to them, and more of honour to our common Profession by such courses than by an ostentatious parade of honorary titles, which are for the most part but baits for patients, equally false as badges of merit, and equally true as lures to catch guineas. I am, &c.

Colchester, September 26. David P. Morris.

COMMUNICATIONS have been received from—

Dr. Henry Osborne; Mr. W. Talley; Dr. Page; Apothecaries' Hall; Mr. Joseph Toynbee; Mr. W. Parker; Dr. Robert Boyd; Royal College of Physicians; Dr. J. Braxton Hicks; Dr. A. H. Corley; A Country Surgeon; Mr. J. Hill; Dr. Humphrey; Mr. H. Doubleday; Dr. Henry Osborne; Dr. C. Buckley; Dr. John Desmond; Medicus; Dr. Andrew Beath; Dr. Hugh Dow; Mr. S. W. Wilkinson; Dr. James Symes; An ex-Assistant Surgeon; Mr. W. Elliott Porter; An Army Surgeon; Mr. F. D. Fletcher; Dr. Henry Gervis; Dr. Robert Fowler.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 1, 1864.

BIRTHS.

Births of Boys, 1062; Girls, 961; Total, 2023.
Average of 10 corresponding weeks, 1854-63, 1727·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	670	614	1284
Average of the ten years 1854-63	624·6	589·5	1214·1
Average corrected to increased population	..	..	1252
Deaths of people above 90	..	..	5

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa
West ..	463,388	..	4	11	1	4	9	10
North ..	618,210	1	2	17	1	4	13	6
Central ..	378,058	1	11	14	2	3	8	5
East ..	571,158	2	16	19	3	5	25	17
South ..	773,175	7	7	34	3	13	15	28
Total ..	2,803,989	11	40	95	10	29	70	66

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·078 in.
Mean temperature	54·5
Highest point of thermometer	68·8
Lowest point of thermometer	42·0
Mean dew-point temperature	48·5
General direction of wind	Variable.
Whole amount of rain in the week	0·00 in.

APPOINTMENTS FOR THE WEEK.

October 8. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

10. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

11. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

12. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

13. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

14. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

COURSE OF
LECTURES
ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D., F.R.C.P.,
Professor in University College, and Assistant-Physician to University College Hospital.

Lecture VII.

PHOSPHORIC ACID, AND PHOSPHATES IN RICKETS, DISEASES OF THE BRAIN, SPINAL CORD, BLADDER, AND OTHER AFFECTIONS; PHOSPHATIC GRAVEL AND CALCULI, THEIR DIAGNOSIS AND TREATMENT.

Although not venturing to endorse the assertion of a recent writer, that "a man with too little phosphorus in his brain is an imbecile, and one with too much a maniac," we cannot but admit that phosphorus, in some form or other, is an indispensable ingredient of the human frame. This arises from the fact that no other element with which we are at present acquainted seems capable of supplying the place of phosphorus in the animal tissues.

In a free state phosphorus is never to be met with, either in the body, or in any of the excretions, except when it has been taken internally in medicinal or poisonous doses. In a combined state, on the other hand, it enters very largely into the composition of our frames, and appears to perform a very multifarious part in the processes of life. Not only is phosphorus to be found in human bones, and in human brains, but even in the bodies of the minutest animals and plants in which all differentiation of tissue and of function is alike impossible.

Chemistry.

The element phosphorus is, as is well known, a yellow, wax-like solid, easily melted, and highly inflammable. It takes fire spontaneously when raised to a temperature about equal to that of human blood, and has, consequently, to be kept under water. In a free state phosphorus cannot be said to exist in Nature, but in an oxidised form, as phosphoric acid united with lime or some other base, it is widely distributed throughout both the organic and inorganic universe; so that the human body may be said to draw its supply, not only from the food we eat and the water we drink, but even from the very air we breathe.

Phosphorus is excessively easily oxidised, and combines with oxygen in the three proportions of one, three, and five (PO, PO_3, PO_5), all of which combinations are acid substances. It is, however, chiefly, if not entirely, with the last that we have to do, and its presence or absence from any fluid can be ascertained in the following manner:—

To the suspected liquid add a little acetate of soda, with a drop or two of acetic acid, then slowly pour in a small quantity of the sesquichloride of iron. The formation of a gelatinous precipitate of the phosphate of iron (FeO,PO_5) at once reveals the presence of the suspected substance. When only a small quantity of phosphoric acid is present, the precipitate is slow in forming, and the liquid at the same time becomes red, in consequence of the action of the acetate of soda on the excess of iron in the mixture.

The phosphoric acid found in the urine is not in a free state, but is combined with the two alkaline bases, potash and soda, and the two earthy bases, lime and magnesia. Normal urine contains about four times more of the alkaline than of the earthy phosphates, while of the earthy phosphates themselves there is about double the quantity of phosphate of magnesia that there is of phosphate of lime. Neubauer, Kerner, Lehmann, Böcker, and Kletzinsky are of an opposite opinion. They think the phosphate of lime preponderates over the phosphate of magnesia. The different results obtained by these observers, although no doubt chiefly due to the differences in the diet of the persons operated upon, may also in some measure arise from the differences in the ages of the patients, for, I think, it will yet be found that while in the urine of the growing child the phosphate of magnesia preponderates, in the urine of the aged it is the phosphate of lime that is in excess. The child's body retaining the lime in order to form its bones and teeth, while that of the aged person, having ceased to require a supply for that purpose, allows it to pass away with the urine.

Phosphates are never deposited spontaneously from healthy urine. No sooner, however, does the urine become stale, and its urea decompose, than crystals of triple phosphate ($2MgO,NH_4O,PO_5$) are precipitated. This arises from the circumstance that the earthy phosphates are only soluble in acid solutions, and when the urea is decomposed it is changed into carbonate of ammonia, which causes the urine to become alkaline. A similar result may be obtained artificially by simply adding a few drops of ammonia to freshly-passed healthy urine. An immediate white precipitate of the earthy phosphates being thereby induced.

Fig. 12.

Fig. 12.—Crystals of triple phosphates rapidly deposited in human urine.

The precipitate consists partly of the ammoniaco-magnesian phosphates (triple phosphates) and partly of the phosphate of lime. Phosphates are in general fine microscopic objects, but the appearances they present greatly depend on whether they are rapidly or slowly crystallised. When the ammoniaco-magnesian phosphate crystallises rapidly, as happens on the addition of ammonia to freshly-passed urine, it assumes the form of fine feathers and fronds, either singly or in stellate groups. Fig. 12. Whereas under the same circumstances the simple phosphate of lime falls down as an amorphous powder, or assumes the form of round globules.

On the other hand, when the ammoniaco-magnesian phosphates are allowed slowly to crystallise, as, for example, when the urine becomes gradually alkaline from the decomposition of its urea, and the consequent formation of the carbonate of ammonia, the triple phosphates, instead of appearing as feathers and fronds, assume the form of well-defined prismatic crystals, large enough, in most cases, to be visible to the naked eye. They are usually many-sided prisms, terminating in angles and facettes, the largest of the crystals being beautiful polariscopic

Fig. 13.

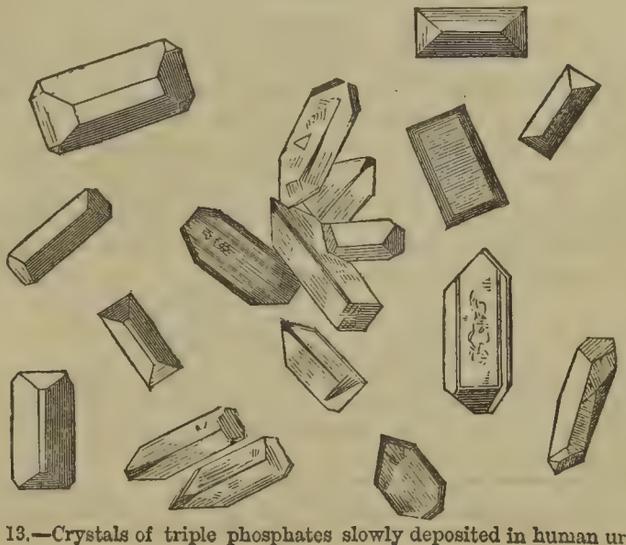

Fig. 13.—Crystals of triple phosphates slowly deposited in human urine.

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—Ed. *Med. Times and Gaz.*

objects. A selenite plate adds greatly to their beauty, for by its means a fine red field and deep blue crystals may be obtained.

It is only the prismatic and modifications of the prismatic form of crystals that polarise. The feathery phosphates show no play of colours.

As the prismatic crystals of the triple phosphate frequently form a scum on the surface of urine, the idea has got abroad that all prismatic crystals so found must necessarily be phosphates. This has led to the invention of many ingenious arguments in order to explain why this scum and these supposed crystals are occasionally met with in acid urine, it being well known that triple phosphates are soluble in acid solutions. The fact of the case, however, is that the prismatic crystals which appear in acid urine, as I shall afterwards have occasion to show, are frequently not phosphates at all, but a crystalline organic substance of an important nature—creatinin.

As regards the simple phosphate of lime ($3CaO,PO_5$), which, when rapidly precipitated, falls down as an amorphous powder, Dr. Hassall has shown that, when allowed to crystallise slowly, as, for example, under the condition just alluded to—the decomposition of urea in normal urine,— it assumes a crystalline form. The crystals of the simple phosphate of lime appear in this case also in the form of prisms. The conclusions arrived at by Hassall are :—

1st. That phosphate of lime occurs in human urine in a crystalline form.

2nd. That it is of frequent occurrence.

3rd. That it is of greater pathological importance than the triple phosphate.

The foregoing remarks are only applicable to the earthy, for the alkaline phosphates are so soluble that even the addition of ammonia does not cause them to crystallise. If, for example, I filter a urine to which ammonia has been added, and thereby separate the earthy phosphates, which of course remain behind on the filter ; on adding to the clear filtrate a little carbonate of ammonia, and some sulphate of magnesia, a second white flocculent precipitate falls down, which, when examined with the microscope, is found, as in the first case, to consist of beautiful feathery crystals of triple phosphates. The explanation of this fact is that the phosphoric acid, which was united with the soda and potash in the form of soluble salts, has, on the addition of the ammonia and magnesia, left the soda and potash, and entered into combination with the ammonia and magnesia in the form of the insoluble ammoniaco-magnesian phosphate, while the carbonic acid of the added ammonia, and the sulphuric acid of the added magnesia, have combined with the soda and potash in the form of soluble salts, which remain in solution.

It is seen, then, that a quantitative analysis of both the earthy and of the alkaline phosphates in urine might easily be made by proceeding as has just been explained, all that is required being to operate on a given quantity of urine and collect, dry, and weigh the two precipitates. That obtained by the simple addition of ammonia would represent the earthy phosphates of lime and magnesia; while that subsequently obtained by the addition of the carbonate of ammonia and sulphate of magnesia would correspond to the amount of the alkaline phosphates of soda and potash in the secretion.(b)

There are no less than three different forms of phosphate of soda in human urine—an acid ($NaO,PO_5 2HO$), a neutral ($2NaO,PO_5,HO$), and an alkaline ($3NaO,PO_5$).

Some think that the acid reaction of the urine is chiefly due to the presence of the acid phosphate of soda, but although it may conduce to, it is not the chief cause of the acidity. When feebly acid or neutral urine is boiled, more especially if it contains an excess of earthy phosphates, a white cloud, which is frequently mistaken for albumen, falls down. This cloud or precipitate is easily distinguished from albumen by the addition of a few drops of acid, which, while it clears phosphatic, only renders albuminous urine more opaque.

Scherer explains the deposition of the phosphates by boiling on the grounds that heat changes the more soluble neutral into the less soluble basic salts.

$$2(2CaO,PO_5,HO) + 2(2MgO,PO_5,HO) = \begin{cases} 3CaO,PO_5 \\ 3MgO,PO_5 \end{cases} + \begin{cases} CaO,2PO_5,HO \\ MgO,2PO_5,HO. \end{cases}$$

The muddy appearance of alkaline urine is in great part due to the presence of insoluble phosphates, and in the deposit at the bottom, as well as in the scum on the top, crystals of them can easily be detected.

(b) This is a very common method of analysis, and when followed 50 c.c. of urine are generally employed. The precipitate should be allowed to stand twelve or twenty-four hours before being filtered.

Clear urine containing much phosphate of magnesia, as after a dose of salts, for example, is at once rendered turbid by a drop or two of ammonia which causes a precipitate of the ammoniaco-magnesian triple phosphate to fall down.

Quantitative Analysis.—There are three methods by which the amount of phosphoric acid in urine may be ascertained :—

1st. By precipitating the phosphoric acid in the form of earthy phosphates, and weighing the amount, as stated above.

2nd. By a standard solution of the perchloride of iron.

3rd. By a standard solution of uranic oxide.

Of these three methods, the last being now acknowledged to be the best, I shall describe it.

1st. Preparation of standard solution of uranic oxide.

Dissolve 20·3 grammes (314·65 grains) of pure uranic oxide in strong acetic acid, and dilute the solution with distilled water up to 1000 c.c. (32·26 oz.) Each cubic centimetre of this solution will equal 0·005 gramme of phosphoric acid, which Neubauer considers is the most convenient strength.

2nd. Acetate of soda solution.

Take 100 grammes (1550 grains) of acetate of soda with 100 c.c. of pure acetic acid, and dilute with distilled water up to 1000 c.c.

3rd. Prepared paper.

Cut some white filter paper into strips, and saturate them with a concentrated solution of ferrocyanide of potassium. Dry and preserve them in stoppered bottles for use.

Method of Analysis.—Being provided with the above solutions, proceed as follows :—To 50 c.c. of clear urine add 5 c.c. of the acetate of soda solution. Heat the mixture, and while still warm add, drop by drop, the standard solution of uranic oxide (from the apparatus described under the head "Urea Analysis") until a precipitate ceases to form, or, what is still easier, until a piece of the dry, white paper, saturated with a solution of ferrocyanide of potassium, is stained brown, on a drop of the mixture being allowed to fall upon it.

Supposing that 20 c.c. of the standard solution of uranic oxide has been required to precipitate the phosphoric acid in the 50 c.c. of urine, and, as was said, 1 c.c. of the solution is equal to 0·005 gramme of phosphoric acid, it is evident that the 50 c.c. of urine must have contained 0·1 gramme of phosphoric acid. If, then, the patient passed (we will imagine) 1200 c.c. of urine in the twenty-four hours, his daily excretion of phosphoric acid must have been 2·4 grammes.

$$\frac{0{\cdot}1 \times 1200}{50} = 2{\cdot}4$$

N.B.—Should it happen that the urine contains a precipitate of earthy phosphates, they are to be dissolved by means of a few drops of hydrochloric acid before the standard solution is employed. If the urine likewise contains mucus, filter it after the addition of the hydrochloric acid. If albumen, separate it by boiling.

(To be continued.)

ORIGINAL COMMUNICATIONS.

REPORT ON

THE RECENT CASES OF POISONING BY CALABAR BEAN.

Under the care of J. CAMERON, M.D., M.R.C.P.,
Physician to the Southern Hospital, Liverpool.
(Reported by Mr. J. H. EVANS, House-Surgeon.)

ON the afternoon of Thursday, August 11, forty-two children, poisoned by eating the "Calabar ordeal bean," were admitted into the Southern Hospital under the care of Dr. Cameron, and on the following day four more cases. Of these forty-six cases one only proved fatal. It appears that the beans were obtained from amongst a heap of rubbish—the sweepings of a ship which had recently brought a considerable quantity of them as a part of her cargo from the West Coast of Africa. These sweepings had been inadvertently deposited on some waste ground near the Hospital, and in the centre of a very populous neighbourhood.

We purpose to give in a table, which we annex, an abstract of the symptoms in forty-three of these cases, and to relate the remaining three more fully—one, because it proved fatal, and we had an opportunity of making a post-mortem examination ; the other two, not because they presented any remarkable peculiarities, but on account of the age of the patients being such that we have been able to get more trustworthy information on many points than could be obtained from any of the others.

Number.	Initials.	Age.	Symptoms previous to Admission.	Symptoms whilst in the Hospital.	Admitted.	Discharged.	Progress of Case after Discharge.
	August 11				P.M.	P.M.	
1	M. A. F.	13	This case is reported at length.				
2	M. P. ..	7	Stated to have taken two and a-half beans a little before two o'clock. In fifteen minutes, nausea and abdominal pain; prostration; tremor and inability to walk.	Prostration and vomiting ..	2.15	5.30	Continued in a low state for some time, and was purged three times. 12th.—Vomited a little. Able to walk; still very pale.
3	M. R. ..	6¾	This case is reported at length.				
4	J. C. ..	4½	Ate one bean on an empty stomach at 1.15. In from five to ten minutes, pale; then vomiting, abdominal pain, and purging. From 1.30 to 6 30, great pallor and drowsiness, with intervals of abdominal pain; thirst; no vomiting or purging.	Ditto	6.30	8	No vomiting or purging. Great thirst all night; giddiness and inability to walk. 12th.—Is able to walk, but weak.
5	B. F. ..	2	Took the poison after dinner. At 2.30, vomiting and abdominal pain; prostration; no purging.	Ditto	3.30	6.40	No vomiting or purging; thirst; anorexia; languor; staggered like a drunken person. 12th.—Convalescent.
6	C. C. ..	2¾	Took the poison after dinner. Vomited a large quantity, "about a pint." Giddiness; no purging and no abdominal pain; prostration.	Ditto	2.30	5	No vomiting or purging; inability to stand; slept soundly all night. 17th.—Continues ever since fretful; is restless at night.
7	E. H. ..	7	Says he took "more than one" bean. At 2 o'clock, free vomiting; great prostration; conscious, but unable to speak; no purging; frothing at the mouth and spasmodic closure.	Ditto	2.50	6	On getting home slept. No purging. 12th.—Looked delicate, and was not able to eat.
8	E. D. ..	5	Ate two beans. At 2.20, pain in abdomen; prostration; no vomiting or purging.	Ditto	2.30	5	No vomiting or purging; soon able to run about and eat.
9	T. N. ..	5	Ate two beans after dinner (little after 2 o'clock). Soon abdominal pain and vomiting; prostration; tremor. Consciousness perfect; no purging.	Ditto	2.30	6	Vomited once, but was not purged. Thirst; not able to eat or stand.
10	M. H. ..	2½	Took the poison about 1 o'clock. At 3, vomiting, drowsiness, and slight prostration.	Ditto	3.15	6	Vomited a little; afterwards ate some bread-and-butter. 12th.—Quite well.
11	M. H. ..	5	Vomiting, drowsiness, and prostration ..	Ditto	3.35	5	Soon convalescent.
12	J. M. ..	4	Vomiting, prostration, purging, and abdominal pain.	Ditto	3.30	5	Vomiting continued till 1 a.m.; no purging. 14th.—Till to-day thirsty, suffering from loss of appetite, and unable to stand.
13	B. B. ..	4	Took the poison after dinner, between 12.30 and 1 o'clock. A little after 1 was found lying on the face, vomiting freely, and mother thought she was dying.	Ditto	2.30	5	Ate some cake, but vomited it; no purging; got very drowsy. 12th.—Convalescent.
14	J. McH...	7	Took the poison about 2 o'clock. Vomiting; no purging; when put to walk staggered as if drunk; prostration.	Ditto	3	4	Vomited a little, but was not purged; ate well.
15	J. R. ..	3	Ate a "great many" beans after dinner. At 2.30 inability to walk; prostration; at first pale, afterwards flushed; no vomiting or purging.	Prostration. Vomited a large quantity of bean. Drowsy. For state of pupils see "Remarks."	3	9	Ate after going home; neither vomiting nor purging; thirst; slept soundly. 17th.—Is said to go to bed from being tired much earlier than he used to do.
16	W. H. W.	9	Took the poison after dinner. Prostration; neither vomiting nor purging.	Prostration and vomiting ..	2.40	6	Very "sick," and not able to eat; drowsy and very weak for two or three days. 17th.—Has not eaten well nor been so cheerful ever since.
17	M. A. McL	4	Ate the beans after dinner. At 3.30 prostration; tremor; no vomiting or purging.	Ditto	5	6	Vomited and was purged; shortly after this took her supper, and was soon able to walk; no thirst; was "very heavy in sleep" during the night.
18	M. A. H.	6	Took the poison after dinner. At 3 vomiting; abdominal pain; prostration; no purging.	Ditto	3.30	6	Vomited a little. 12th.—Slept soundly all night, and is now quite well.
19	M. A. S.	7	Ate the "bigger half" of one bean at 1 30 on an empty stomach. At 2 vomiting; abdominal pain; no purging; was cold, "had no power at all in her," and fainted several times.	Extreme prostration and vomiting; was once or twice purged.	2.30	6.30	Pain in the abdomen continues; slept well all night, and was purged during sleep. 12th.—No appetite; thirst. 17th.—Does not eat well, and has got very thin.
20	E. S. ..	6	Ate the "smaller half" of one bean at 1.30 on an empty stomach. About 2 vomiting; staggered when put to stand; prostration; no purging.	Prostration and vomiting ..	2.30	4	Soon convalescent.
21	B. C. ..	6	At 2 p.m. chewed one bean, but threw it out again, because it was "bad;" (had had his dinner). "Almost immediately" vomited, and was purged; had abdominal pain and marked prostration.	Ditto	2.30	4	Continued cold for some time; vomited, but was not purged; drowsy; no thirst. 12th.—Appetite bad; is weak, but able to walk. 17th.—Still suffers from loss of appetite.
22	R. A. D...	5	Took the poison at 1·30 (after dinner). At 2 "came in staggering as if drunk;" prostration; "great heaving of the chest;" vomiting; no purging.	Ditto	3	5	On returning home slept. Late in the evening had something to eat. No thirst, but great heat of skin. 17th.—Is now quite well.
23	J. R. ..	4	Took the poison at 12, after a little dinner. At 2, vomiting, purging, prostration.	Ditto and purging ..	2.30	8	Pain in abdomen. 12th.—When put to walk staggered and fell, sustaining a scalp wound. 17th.—Appetite bad ever since, and passes blood in stool.
24	T. D. ..	4	Took the poison after dinner. At 1, nausea, prostration; subsequently vomiting; no purging.	Prostration and vomiting ..	2.20	4	Drowsy and weak. 12th.—Convalescent.
25	M. C. W.	3	Took the poison after dinner. Vomiting, abdominal pain, prostration.	Ditto, and was purged twice	2.20	7	Vomiting. Was purged three or four times in the night. Great thirst and heat of skin. 12th.—Able to walk. 17th.—Is pale, cross, and does not eat well.
26	J. R. ..	2	Took the poison after tea. Vomiting, prostration; no purging.	Prostration and vomiting ..	8.30	11	Slept all night more soundly than he was ever known to do.
27	J. B. ..	8	Took the poison about 2·15. Vomiting, tremor, staggered when trying to walk, abdominal pain, prostration; no purging.	Ditto	2.45	5	Vomited, but was not purged; very sleepy; complained of a little abdominal pain, and was thirsty. 18th.—Has been quite well since.
28	C. B. ..	3	At 4·15, vomiting, abdominal pain; no purging; "lying on the floor quite helpless."	Ditto	4.30	8	Thirst; very sleepy. 18th.—No bad symptom since.
29	T. C. ..	5	Took the poison about 2·30. Vomiting, "shook like a leaf," prostration; no purging.	Ditto	3	5	Was very sleepy, and had thirst. Could walk after a little time. 12th.—Slight abdominal pain.
30	C. T. ..	6½	Took the poison after dinner. Vomiting, prostration; no purging.	Ditto	3.30	5	Could not walk for some hours, and when he tried he staggered "like a drunken man."

Number.	Initials.	Age.	Symptoms previous to Admission.	Symptoms whilst in the Hospital.	Admitted.	Discharged.	Progress of Case after Discharge.
	August 11				P.M.	P.M.	
31	M. B. ..	6	Ate some beans after dinner, at 1 o'clock. At 2·30 vomiting, prostration.	Prostration and vomiting ..	2.50	4	Vomiting. Staggered, and was not able to walk for two hours. Had something to eat in the night.
32	S. P. ..	6	Ate one bean at 11 o'clock (before dinner). At 12·15, vomiting, abdominal pain, prostration; no purging.	Ditto, and purged once ..	2.40	4	Purged once or twice and vomited. In three hours ate very well.
33	D. T. ..	4	Is said to have eaten six beans at 2·15. At 2·30, staggered and fell, great prostration, "seemed to have no life in him;" neither vomiting nor purging.	Prostration and vomiting ..	2.50	5	Vomited several times; ate a little and was very sleepy. 12th.—Able to walk. 18th.—Has been in perfect health since.
34	J. T. ..	4	Took the poison at 2·30. At 4, nausea, tremor, prostration; neither vomiting nor purging.	Ditto	4.30	6	Vomiting, great thirst. 18th.—Has been peevish and cross ever since.
35	J. McG. ..	7	Is said to have eaten half a bean at 3·30. At 4, vomited "close on a pint of nasty green stuff," prostration; no purging.	Ditto	4.30	5.30	Vomiting continued to a slight extent, no purging, abdominal pain, very sleepy, when awake had great thirst. 12th.—Able to walk, but weak.
36	E. F. ..	4	Took the poison about 2. Staggered and fell, prostration, vomiting but no purging, abdominal pain.	Ditto	3	5	Slept a deal, ate well, and in two or three hours walked.
37	J. K. H.	9	Ate "three halves" at 1·30 (after dinner). At 2·15, abdominal pain, vomiting, "lying on the floor quite prostrate;" was purged once.	Ditto, and was purged twice.	2.30	6.30	Did not vomit nor was he purged, but continued very weak. 12th.—Ate a little and could walk pretty well, but was not "strong and stout" till the 15th.
38	M. A. F..	10	Took the poison at 11·30 (before dinner). At 12, vomiting, staggered "as if drunk," prostration, abdominal pain, but no purging.	Prostration and vomiting ..	2.30	4	Vomited two or three times, but was not purged; was giddy and thirsty.
39	W. G. ..	6	Took the poison at 1·30 (after dinner). At 2·10 was lying in bed, vomiting but not purged, prostration, abdominal pain.	Ditto	2.30	5	A little "sick" and sleepy. 12th.—Could walk and eat very fairly. 18th.—Since eating the beans has not appeared as well as she was before.
40	M. A. K.	3	Took the poison at 2 o'clock (after dinner). In five minutes "ran in staggering like a drunken person," vomited, but was not purged.	Ditto	2 30	4	Was very "sickly" and pale after going home. 12th.—Convalescent.
41	M. E. H.	4	Took the poison at 12·30 (before dinner). At 12·50, inability to stand, abdominal pain, prostration, vomiting, and twice purged.	Ditto	2.20	4	After going home had some castor oil, and the motions are said to have contained portions of bean. Had little appetite, and was very weak for several days.
42	C. H. ..	2½	Took the poison at 12·30 (before dinner). At 12·15, purging, inability to stand, vomiting, abdominal pain, prostration.	Ditto	2.20	4	Appetite bad for some days.
	August 12						
43	M. J. F...	32	This case is reported at length.				
44	E. W. ..	6	These three children had two beans between them and ate them before dinner. At 12, staggering, "talked foolishly" at first, but afterwards "did not seem able to ask for anything;" vomiting, abdominal pain, no purging.	Prostration, vomiting, and purging; pulse slow, becoming in two hours more rapid; pupils unaffected.	1.15	3.15	Was soon quite well.
45	M. W. ..	4	Ditto, except "talking foolishly."	Prostration and vomiting; the pulse at first slow, rising in a little time from 90 to 108.	1.15	3.15	Ditto
46	E. G. ..	5	Soon after 12 vomited and was twice purged; staggering, prostration. Ipecacuanha wine was given at home to each of these three children, rendering the vomiting more free.	Prostration, vomiting, and purging; pulse 96, feeble, rising to 120; pupils small. (See "Remarks.")	1.15	3.15	Anorexia, thirst, and irritable stomach, but no purging; unable to stand. 13th.—Passed a restless night; is now fretful. 15th.—Is now quite well.

Case 1.—Mary A. F——, aged 13, was the first case of poisoning brought to the Hospital. On admission, at a quarter past two o'clock, she was found to be in a state of considerable prostration; the hands and feet being remarkably cold, the face very pale, and the pulse small, feeble, and beating between fifty and sixty times in the minute. There was no impairment of the mental faculties. A sulphate of zinc emetic was at once administered, followed by a plentiful supply of warm water, and she soon vomited very freely. Shortly after this, continuing in a low state, some hot brandy and water was given her, and she was sent to bed. She soon rallied, the pulse becoming more frequent, and she had not a bad symptom afterwards. From two to three ounces of brandy were administered. The state of the pupils was not particularly observed at the time of admission, but about seven o'clock they were found quite normal in size.

The history the girl gives of herself is this:—A few minutes before two o'clock she took on an empty stomach one of the beans, rind as well as kernel. In about ten minutes she had pain in the epigastrium of a "plunging" character, but it passed off in two or three minutes, and she has not since had a return of it. Had no pain or discomfort in the mouth or throat. About half an hour after eating the bean she began to feel a lightness in the head, her "eyes became dizzy," "all sorts of things appeared to be passing her," and "afterwards everything seemed to pass into one." She states that she then felt very weak, trembled, and could not walk without assistance. A few minutes after her head became light, she felt sick at stomach, and vomited a little, but was not purged. She was then shortly brought to the Hospital.

Her mother, speaking of the time she brought her to the Hospital, says:—"I had almost to carry her. She was quite prostrate, all of a tremble, and in a manner completely paralysed, and had lost her sight. She shouted 'Mother, I'm dying; I can't see you.' She then complained of no pain."

12th.—Passed a good night, and now feels very well. The bowels have been once moved this morning, There is no febrile excitement, and no thirst. The urine was scanty, and some she passed to-day on being examined was found to have a pale deposit, soluble on the application of heat, occupying about one-fourth its bulk. It was acid in reaction, of sp. gr. 1024. Under the microscope was seen a great abundance of uric acid and oxalate of lime crystals, together with some squamous epithelium.

Discharged.

Case 3.—Michael R., aged 6¾, a boy who is said to have always enjoyed good health, was the third case admitted. He is stated to have eaten six beans on an empty stomach a little after one o'clock. At 1.50 p.m. his mother saw him come staggering up the street, and fall at the door of her house. When he first fell he kicked and rolled about as if in pain, but afterwards became quite quiet. He was freely purged, but did not vomit. When carried to the Hospital in his father's arms, he is stated to have been "so powerless that he could not hold his head up," and to have "had a heavy beating at the chest."

When admitted, about ten minutes after two o'clock, the chief symptom, as in the other cases, was great prostration. His eyes being very prominent from great congenital enlargement of the anterior chambers, were particularly noticed, but no peculiarity was observed in the state of the pupils. A sulphate of zinc emetic was directly administered, followed

by a copious supply of warm water. No vomiting resulting, in the course of a few minutes a mustard emetic was given, and, on account of the low state he was in, some hot brandy. The stomach-pump was afterwards used, and a small quantity of thickish fluid removed. About fifteen minutes after admission he was much purged, the stool being thin, watery, and of a pale buff-colour. His pulse was barely perceptible, and respiration attended with rattles; he was very cold, and his face of a livid colour. He was quite conscious, and able to swallow some water given him. Directly after drinking he died without a struggle, some froth at the time issuing from his nose and mouth. Artificial respiration was immediately had recourse to and galvanism applied, but to no avail. Death took place about an hour and a quarter after taking the poison. During the whole course of his suffering this patient did not vomit.

Autopsy, Twenty-three Hours after Death.—No remarkable external appearance, excepting the froth above alluded to. Rigor mortis slight. Pupils rather over a quarter of an inch in diameter. Head and spine: On opening the skull, the blood very fluid and dark; brain quite healthy. The dura mater of the spine normal in appearance. The vessels of the pia mater seemed rather distended, but probably not more so than may be accounted for by the fluid condition of the blood and the position of the body after death. There was no effusion. Chest: Moderately firm adhesion of the whole of the costal surface of the left lung, the upper lobe of which contained a considerable quantity of tubercle and a small cavity. The right lung was pale and emphysematous. The heart's structure was very flaccid, and blood partly clotted and partly fluid was found in both sides, the largest quantity being in the right cavities. Kidneys, spleen, and liver healthy. The gall-bladder contained about an ounce of thin bile. The bladder contracted and empty. The stomach contained five ounces of a thickish pulp. The mucous membrane was of a pale pink colour, a little darker in a few places. Portions of the bean with a few bits of rind were found. The rugæ were strongly marked in narrow linear elevations. The intestines contained seventeen ounces of a fluid, without smell, in colour and consistence much resembling almond emulsion. Their mucous membrane was throughout of a pale colour. The large intestines contained no fæcal matter.

Case 43.—Mary J. F., aged 32, married, and now in the fifth month of pregnancy, was admitted on August 12, about 7·30 p.m. Ate one bean a little after two o'clock yesterday afternoon. Shortly after this was in the Hospital with one of her children who had been poisoned by a bean. At that time she felt nothing wrong. She left the Hospital about five, and directly she got home she felt unwell, and an uneasiness in the stomach, as if she had "eaten something that did not agree" with her. Had no pain at this time, nor were there any head symptoms. She continued to feel "poorly" till four o'clock this afternoon, when she was seized with "a cramp in the stomach," and she "felt so faint that she could not walk." Had great nausea. About six o'clock her husband gave her a dose of castor oil, which she immediately rejected; directly she vomited she began to feel very dizzy, and she saw a succession of small stars of brilliant colours. She had then also double vision. No diarrhœa.

When admitted she was very restless, and appeared to be suffering from intense pain in the stomach, attended with efforts to vomit. She was pale and cold. There was no abnormal condition of the pupils. A mustard emetic was immediately administered, and in two or three minutes she threw up a large quantity, with remarkable relief to the pain. She was then placed in bed, brandy was given her, warmth applied to the extremities, and a mustard plaster to the stomach.

13th.—Passed a good night, and was up walking about the ward at 9 a.m. Felt quite recovered, with the exception of a slight pain in the abdomen, which was removed by the application of another sinapism. Some urine passed this morning, on being examined, was found to be of a dirty straw colour, acid reaction, specific gravity 1012, and containing a small quantity of albumen.

From the time of admission on the 12th until 9 p.m., about three or four ounces of brandy were administered; subsequently to which she had neither stimulants nor medicine. Was discharged on the 13th, seventeen hours after admission.

The *treatment* in all the cases, excepting that of the woman M. J. F., who, at the commencement, had a mustard emetic, consisted, first of all, in the administration of sulphate of zinc, the dose varying from 15 to 30 grains, according to the age of the patient. As the first six or eight who came did not swallow the remedy as quickly as could be desired, in the remaining cases, to avoid delay, a tube was passed into the stomach, the emetic solution injected, and the tube withdrawn. Warm water was then supplied *ad libitum*, and the child wrapped up in flannel, and, with few exceptions, left in its mother's lap. If free vomiting did not occur in a few minutes, a mustard emetic was given, and in most cases followed by the desired result. Stimulants—brandy and carbonate of ammonia (the latter occasionally given also to aid the other emetics) were afterwards administered. In many cases sinapisms were applied to the stomach, and afforded great relief. Directions were then given as to further treatment (the maintenance of warmth, gentle stimulants, &c.), and the children sent home after intervals, varying with the severity of the cases, from one to six hours, with injunctions to return if any untoward symptoms should arise.

Remarks.—The average *weight* of twelve of the *beans* which we afterwards procured was found to be 65 grains—the largest being 83 and the smallest 34 grains. The kernels of a few were also weighed, and they averaged 49 grains. The *taste* of the bean one boy describes as good and sweet when first chewed, not causing at any time any unpleasant sensation in the mouth or throat. Another boy chewed a bean and spit it out again because it was "bad." The girl M. A. F. speaks of it as at first sweet, afterwards becoming "quite rough."

Owing to the extreme youth of the great majority of the patients, there is in most cases no reliable evidence as to the *quantity* of the poison consumed, but in a few we have been able to obtain positive information. It varied very much. The woman (aged 32) and the girl (aged 13), whose cases are given above, each took one; the boy who died is said to have eaten six, and from the quantity of bean pulp found after death in the stomach and intestines, it is probable that he took a considerable number. One of the worst cases, a girl 7 years of age, took the "bigger half," and her sister of six years, who was not nearly so ill, the "smaller half" of one. A boy of six years, who chewed one and spit it out again, not swallowing any, is described as having "appeared quite dead" when being carried to the hospital. Three children, who had only two beans between them, presented all the symptoms of poisoning in a marked degree. One case is reported to have eaten as many as twelve, but we consider the accuracy of the statement as, to say the least, doubtful.

Though there was the same difficulty in ascertaining the *interval* between the time of taking the poison and the accession of the symptoms as there was in finding the quantity taken, yet it is clear that it varied considerably. The shortest specified intervals were in the cases of a girl, 3 years of age, who "ran in staggering as if drunk" in five minutes, and of a boy of 4½ years, who had eaten one on an empty stomach, and in whom the symptoms appeared in from five to ten minutes. In the case of the boy who chewed a bean without swallowing any, the symptoms, vomiting and purging, are said to have come on "almost immediately." The longest interval was in the case of the woman F., in whom the symptoms did not show themselves for about two and a-half hours. The average time that elapsed appears to have been from twenty minutes to half an hour.

The prominent symptom present to a greater or less extent in all the cases was *loss of muscular power*, giving rise to a condition resembling paralysis, which, even in its mildest form, deprived the children to some extent of the use of their limbs. It was one of the earliest effects of the poison, appearing in some instances *before*, and in others after the vomiting, and it persisted for some time after the subsidence of the other symptoms. The boy H. (case 37) a fine, healthy-looking little fellow, was for more than three hours unable to steady himself on his legs. Another boy (case 23) on being put to walk twenty-six hours after taking the beans, staggered and fell, sustaining a scalp wound.

It was accompanied by a state of prostration characterised by a feeble, slow pulse, a cold, perspiring skin, and cold extremities, the expression of the countenance being not unlike that which is seen in aggravated cases of English cholera. In R.'s, the fatal case, a state of utter collapse, from which he never rallied, was the most noticeable feature during the short time he was under observation.

The importance and character of these symptoms will be, perhaps, best appreciated by quoting the following terms used by the parents in describing it:—One child was stated to have "fallen powerless," another to have become "as pale as a corpse, and blue in the lips," "she was cold and had no power in her; could not stand, and fainted several times," "he was

cold, and to look at you would take him to be dead," or, "he lost the use of every joint, grew quite dead, lost all colour, and was very cold," etc.

Vomiting was the next most important symptom, and occurred in all the cases except eight: in seven of which, however, *nausea* was complained of. It commenced shortly after the ingestion of the beans; but though in some cases severe, was not generally remarkable for its persistence or urgency. The matters rejected consisted of the contents of the stomach, bean pulp, and mucus. In a few who, we were informed, had partaken largely of the beans, and in whom this symptom appeared early, the collapse and muscular paralysis were comparatively slight. In the fatal case, the amount of poison eaten must have been considerable, but without producing vomiting or nausea, which did not occur even after treatment, and the collapse and prostration were such that death rapidly ensued.

Diarrhœa was present in fifteen cases, in most of which it was not characterised by great severity, and in several did not commence until the children had left the Hospital, and when, therefore, they were recovering from the other effects of the poison. The stools varied in number from one to three or four. To a child (case 41), who had been twice purged at the onset of the attack, the mother administered, on her return home, a dose of castor oil with, it was said, marked benefit, and the passage of some bean-pulp.

In case 23, the child was stated to have had hæmorrhage from the bowels during its progress towards recovery. The child who died was purged previous to admission and shortly before his death, the powerfully cathartic action of the bean being shown by the fact that not a trace of feculent matter was found in the intestines after death. The quantity of the poison taken in this instance, and the absence of vomiting, contributed undoubtedly to exaggerate this symptom.

Pain, described as "belly-ache" or "cramp," was stated to have accompanied, in all the cases, the commencement of the attack; but subsequently there was a remarkable freedom from suffering. Indeed, we were struck with the placid and tranquil manner in which the children lay in their mothers' arms, little or no crying being heard in a room in which were attended from twenty to thirty at the same time. On following out the results of these cases we ascertained that several of the children complained of pain in the abdomen, of the character of "griping," during the next day or two.

The condition of the *pupils* was examined in ten or twelve of the cases admitted on the 11th, and all were perfectly normal in size as compared with those of their attendants, excepting in three, where, perhaps, they were abnormally contracted. One of these, and the most marked instance, was in a boy of three years of age, whose pupils were strongly contracted during sleep, but became, on rousing, by the stimulus of galvanism, of proper size. This child was afterwards allowed to sleep, when the pupils became as contracted as before—to dilate, however, on his being again roused (this time by a shake). As the two other children in whom the pupils were contracted had left before this experiment was made, we had not an opportunity of seeing whether in them waking would be attended with the same result. In one of the four cases admitted on the 12th, the pupils were very small, but it is considered doubtful whether this contraction, if abnormal, was due to the poison taken, because they were not fixed. In the other three they were not at all affected.(b) There were in two of the cases, at the first onset, symptoms referable to disturbance of the *cerebral function*. In the case of M. A. F., "giddiness," impairment of sight, and double vision were complained of soon after she had eaten the beans. Case 43 also suffered from double vision and ocular spectra, and some of the younger children were stated to have exhibited a "stupid look," and to have conducted themselves "as if they did not know what they were doing." To the same source may probably be referred the drowsiness and disinclination to speak which were observed in most of the cases, and persisted for an hour or more after the urgent symptoms had subsided. There was not, however, any unconsciousness. R., notwithstanding his extreme prostration, was sensible a short time before he expired.

No form of *convulsion* was noticed in any of the patients whilst in the hospital; but in case 7 it was stated that the child, when first taken ill had suffered from symptoms resembling a spasmodic closure of the jaws. There was no impairment of *sensation*.

The children, after continuing for a period varying from two to six hours in the state of prostration described, gradually rallied, and were discharged from the hospital—still, however, so weak that many, on attempting to walk, appeared giddy and staggered. Some were able that same evening to take their food as usual, and suffered no further inconvenience from their recent illness; others were listless and languid, disinclined for food or exertion, and during the following night laboured under mild febrile symptoms. Most of them were, on the following day, in the enjoyment of their usual health, but eleven up to this date (August 17th) do not seem to be as well as they were before—some being fretful and restless, others suffering from loss of appetite and the power of continued exertion, drowsiness, &c. It must be borne in mind, with regard to these sequelæ, that to some extent they may have been occasioned by the means adopted to counteract the effects of the poison.

It would appear from the evidence afforded by the foregoing cases that the "Calabar bean" exerts a compound action entitling it to be classed among the narcotic irritant poisons. That it possesses irritant properties was evinced by its action on the gastro-intestinal mucous membrane, which, however, presented a less serious character than the affection of the nervous system, and played a subordinate part as regards the danger to life. It may be premature to express any opinion as to which of the nervous centres is primarily, or more especially impressed by this substance, but we may infer that it acts with considerable energy on the motor function of the spinal cord, and likewise on those portions of the sympathetic which are concerned in regulating the heart's action. Its influence on the brain is less marked, and may possibly arise only in consequence of the close sympathy by which are bound together the functions of this organ and those of the other portions of the nervous system.

The post-mortem examination of R. gives but negative evidence as to the operation of this powerful poison on those organs, the functions of which were so seriously affected during life; but it explains the immediate cause of death in his case. This was considered to be paralysis of the heart, the condition of the cavities being such as we have observed to follow sudden death by syncope. This view is supported by the symptoms during the last moment of his existence, the pulse which, on admission, was barely perceptible, disappeared completely from the wrist while he was yet breathing, and his death was so sudden that for a few seconds it was doubted whether life was really extinct. It may be mentioned that on the application of galvanism, in the hope that the heart's action was not completely arrested, the muscles of the neck, chest, and arms responded but feebly and for a comparatively short time to the stimulus, certainly for a shorter time than is usual in sudden death from drowning, violence, etc. This result, if it is to be attributed to the influence of the poison, would tend to show that the "Calabar bean" has the effect of impairing muscular irritability.

(b) Besides the cases spoken of here, the pupils were examined in cases 1 and 43, the latter on admission and the former five hours after. They were not affected in either case.

CHANGES OF PROFESSORS IN THE PARIS FACULTY.—M. Rostan, having retired from the Professorship of Clinical Medicine, has been succeeded by M. Grisolle, whose chair of Therapeutics and Materia Medica is to be filled by M. Trousseau, in place of the chair of Clinical Medicine of the Hôtel Dieu resigned by him as too laborious. To this M. Piorry has been transferred from La Charité, his professorship of Clinical Medicine there being filled by M. Guillot.

SUCCESSFUL LIGATURE OF THE INNOMINATA.—In the *American Medical Times*, August 20, there appears an interesting correspondence between the venerable Valentine Mott and Dr. Rogers. Nearly half a century ago Dr. Mott first performed this daring operation, but the man died after successive operations on the twenty-sixth day. The operation has been performed thirteen times since, and invariably with a fatal issue; but the octogenarian Surgeon, the American "Nestor" of Surgery, has lived to witness the consummation of his hope and belief that the operation would one day be successfully performed. Dr. Rogers gives an account of the operation as performed by Dr. A. M. Smith, of New Orleans. The innominata and right carotid were tied May 15, and hæmorrhage occurred at intervals until the vertebral was tied July 8. Since then all has gone on well, and on August 9 Dr. Rogers reported that the wound had healed, and the man was walking about.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

NOTES ON CASES OF FEVER WITH REFERENCE TO TEMPERATURE AND THE USE OF STIMULANTS.

[Communicated by Dr. W. BATHURST WOODMAN, Resident Medical Officer.]

PATIENTS suffering from continued fever are not admissible by the rules of this Hospital, but from obvious causes such cases must occasionally occur. The brief notes subjoined will illustrate some difficulties of diagnosis. Where not specially stated, the temperature of the ward is supposed not to be lower than 58°, nor higher than 62° Fah.

Typhus.

(Under the care of Dr. FRASER.)

T. L., aged 42, upholsterer, was admitted May 3, 1864, with a history, as given by himself, of long continued dysentery and melæna—which was probably entirely wrong. As far as could be afterwards ascertained, he had been ill six days. He was an habitually intemperate man. His tongue was tremulous; his breath smelt strongly of spirits; his pulse was soft and rapid, and there was no great heat of skin.

On the 4th he was delirious, but his delirium was of the "busy" character.

On the morning of the 5th his pulse was 120; his temperature 105°; skin dry and hot; tongue loaded and dry at edges. Evening.—Pulse, 120; temperature 104°. Delirium persists.

6th.—There is now a well marked measly rash on the trunk. Pulse, 150; temperature, 103°. Evening.—Pulse, 140; temperature, 102°.

7th.—The spots are becoming more purple; they do not fade on pressure—(this eruption persisted seven days). The delirium is now present by day. Pulse, 136; temperature, 103°. Evening.—Pulse as before; temperature, 101·5. He continued to get worse; low-muttering delirium set in.

On the 9th, his tongue, teeth, lips, etc., were covered with sordes. He passed water unconsciously, and could scarcely be roused to swallow. He was allowed 6 oz. of wine at first, and, on the 11th, 10 oz. wine per day, with milk, eggs, beef-tea, and strong coffee.

On the 13th a crisis occurred, ushered in by profuse sweating, and followed by a copious deposit of lithates in the urine. After this the wine was gradually withdrawn. Dilute hydrochloric acid was the only medicine given. The relations of pulse to temperature for the other days were as follows:—

Date.	Morning. Pulse.	Morning. Temp.	Evening. Pulse.	Evening. Temp.
May 8	120	101·5 deg.	120	102 deg.
,, 9	95	100·5 ,,	90	101 ,,
,, 10	100	100·5 ,,	120	100 ,,
,, 11	90	98 ,,	120	100 ,,
,, 12	88	99 ,,	90	99 ,,
,, 13	95	98 ,,	88	98 ,,
,, 14	80	98 ,,	80	98·5 ,,
,, 15	100	98 ,,	90	98 ,,
,, 16	80	98 ,,	80	98 ,,
,, 17	70	98 ,,	70	98 ,,

and so continued till discharged.

From this time he convalesced rapidly, and gained flesh daily.

On the 27th, however, he complained of pain on the inner side of the right foot, just behind the ball of the great toe, which was accompanied by an erythematous flush and increased heat.

On June 2 there was evident "pointing," and an incision let out several drachms of thick, shreddy, offensive pus. There was no history of any previous injury. The wound soon healed, and he left the Hospital in good health.

Typhus.

(Under the care of Dr. PARKER.)

H. G., aged 26, a tailor, of intemperate habits, admitted May 24, 1864, with the following symptoms:—A strange, restless manner; moist skin, not very warm; tremulous tongue, and small, soft, rapid pulse.

On the 27th a measly rash appeared on the trunk and extremities; his head symptoms increased; he had a confused look, and was much prostrated.

On the next day there were numerous mulberry spots, rather small, some of which could be "chased" by continued firm pressure over a rib, to the distance of half an inch; they did not disappear on pressure. He was treated with dilute hydrochloric acid, eggs, beef-tea, strong broth, and only a small quantity of wine—never more than 8 oz. in one day—although he was attacked by pneumonia; had sordes on teeth, low muttering delirium, and all the worst symptoms of typhus. The rash had disappeared by June 5.

On June 1 he passed 614 grains of urea in the urine, and on the 5th 460 grains.

From this date he improved rapidly, and all medicines were discontinued.

The following table shows the temperature, pulse, etc., from the date of the appearance of the rash:—

Date.	Temperature of ward.	Pulse.	Respiration.	Temperature in axilla.
May 27, evening	60 deg.	134	—	104 deg.
,, 28, morning	60 ,,	104	—	104 ,,
,, ,, evening	60 ,,	102	40	103·5 ,,
,, 29, morning	60 ,,	120	40	105 ,,
,, ,, evening	60 ,,	112	54	103 ,,
,, 30, morning	60 ,,	120	34	103 ,,
,, ,, evening	60 ,,	112	54	103 ,,
,, 31, morning	62 ,,	100	38	102·5 ,,
,, ,, evening	60 ,,	100	34	103 ,,
June 1, morning	62 ,,	85	36	101 ,,
,, ,, evening	Asleep.	No observation made.		
,, 2, morning	60 ,,	80	28	97·2 ,,
,, ,, evening	60 ,,	90	28	97·4 ,,
,, 3, morning	60 ,,	80	24	97·6 ,,
,, ,, evening	58 ,,	80	20	95·5 ,,
,, 4, morning	60 ,,	70	26	96 ,,
,, ,, evening	— ,,	—	—	— ,,
,, 5, morning	64 ,,	80	24	97 ,,
,, ,, evening	— ,,	—	—	— ,,
,, 6, morning	64 ,,	80	20	98 ,,

The pulse, respiration, and temperature continued as on the last date till his discharge, in fair health, about ten days after, in order to go into the country.

Typhus.

(Under the care of Dr. DAVIES.)

Matthew C., aged 43, a labourer, was picked up in the street, and brought to the Hospital in a completely comatose state, with dilated pupils, and breath smelling strongly of brandy. A cold lotion was applied to his head, and, as soon as he could be got to swallow, he was freely purged. He became fully conscious in a few hours, and confessed that he had been drinking very freely. The next day his typhoid look, and a dusky eruption on the trunk, together with a foul tongue, led to the diagnosis of typhus. He was treated with bark and ammonia, occasional purges, good support, and stimulants freely; but, in spite of the liberal allowance of wine and brandy, amounting to 20 oz. of wine and 10 oz. of brandy on some days, he died on the eighth day after his admission (probably the eleventh day of the disease).

The following are the relations of pulse and temperature:—

Date.	Morning. Pulse.	Morning. Temperature.	Evening. Pulse.	Evening. Temperature.
April 9.	130	Not taken.	108	102 deg.
,, 10.	140	106 deg.	140	103 ,,
,, 11.	145	103 ,,	130	104 ,,
,, 12.	110	102·5 ,,	120	102 ,,
,, 13.	120	102·5 ,,	120	101·5 ,,
,, 14.	130	102 ,,	100	101 ,,
,, 15.	140	103 ,,	Died at noon.	

Typhoid.

(Under the care of Dr. PARKER.)

Jacob B., aged 22, a German Jew, was admitted as a Surgical patient on April 15, for copious epistaxis, for which his posterior nares were plugged.

On the 16th he tried to hang himself. His delirium ran high. He said first, he "was a lost soul in hell;" next, that "he was a devil." Sometimes he talked half English and half German. On examination, a few rose-coloured spots, fading on pressure, were found on his chest and abdomen. His pulse was 130. His tongue was red, dry, and glazed.

On the 17th there were meteorism, gurgling, and bronchial râles.

On the 18th a fresh eruption of spots. He was treated with dilute hydrochloric acid, tepid sponging, liquid food, oranges freely, and a very small quantity of wine, 4 oz.,

except for two days, when 6 oz. were allowed him, after rather profuse diarrhœa, which was held in check by Dover's powder.

On the 29th, being apparently convalescent, he was allowed a chop, which caused sickness, purging, and renewed fever. (To resume liquid nourishment.)

He slowly improved, and on May 8 was allowed to resume meat diet, and was soon after discharged convalescent, and was seen two months after in good health.

Typhoid Fever after Chorea.

(Under the care of Dr. DAVIES.)

Elizabeth S., aged 18, domestic servant, was admitted for chorea, chiefly of left side, on June 1, 1864. There was a bruit with first sound of heart, over aortic valves and upwards, which persisted through her entire stay in the Hospital. She was anæmic, but had never had rheumatic fever. No history of gout, rheumatism, or syphilis in the family. Examination of the urine on several occasions enabled me to confirm Dr. Goolden's statements, that the urine in chorea generally contains a notable proportion of sugar. Hers contained also traces of albumen and free ammonia. She was treated with Fowler's solution, and rapidly recovered from chorea, but just as she was to leave the ward (on July 8) she had rigors, vomiting, and slight pyrexia.

On the 12th there were diarrhœa and meteorism, with tenderness on pressure in the right iliac region. Her tongue was red, and she had "night wandering."

On the 13th there was blood in the stools, which were very numerous (ordered a blister to abdomen).

On the 14th rose-coloured spots were seen for the first time; there were four successive crops of these, at two days' interval. The diarrhœa continued. She was ordered log-wood and opium; then, as the diarrhœa persisted, gallic acid and opium and starch enemata. Four eggs a day, with beef-tea and strong broth *ad libitum*, but *never much wine*, the largest quantity being eight ounces on one day. Coffee was much relished, and appeared to do her good. She continued to pass blood per anum till the 19th in considerable quantity. Ice was given to check thirst. She became deaf, and recovered her hearing again as she got better. The following table shows the relations of pulse and temperature:—

Date. 1864.	Morning. Pulse.	Morning. Temperature.	Evening. Pulse.	Evening. Temperature.
July 12.	130	102 deg.	130	105 deg.
,, 13.	130	105·5 ,,	130	106 ,,
,, 14.	130	104 ,,	130	104 ,,
,, 15.	130	101 ,,	140	103 ,,
,, 16.	130	105 ,,	130	103 ,,
,, 17.	100	104 ,,	100	105 ,,
,, 18.	100	105·2 ,,	120	104·5 ,,
,, 19.	100	102·5 ,,	100	103 ,,
,, 20.	100	104·7 ,,	100	100·5 ,,
,, 21.	100	99 ,,	100	100·5 ,,
,, 22.	80	97·7 ,,	80	100 ,,
,, 23.	90	98 ,,	80	98 ,,
,, 24.	80	97 ,,	80	97 ,,
,, 25.	80	98 ,,	80	98 ,,

and so continued until she was quite convalescent, and ordered into the country.

A Case of Typhus Simulating Acute Rheumatism.

(Under the care of Dr. DAVIES.)

Samuel W., aged 29, a clerk, who has had syphilis and been a rather free drinker, was admitted June 7, 1864, after seven days' illness, preceded by about fourteen days' *malaise*. He had severe pain in the shoulders, elbows, and wrists, also in the knees and ankles. His pulse was 120, skin hot, tongue foul, and he had delirium at night. Ordered mist. effervesc., and blisters to affected joints. On the next day the head symptoms increased, also the heat of skin and delirium. He also had a sour smell, just like rheumatism. The severe articular pains continued. Next day a measly rash appeared, but was complicated by a coppery specific rash which existed before and persisted after. There was never any cardiac complication, but he was attacked with pneumonia. On the 11th he had retention of urine, and low muttering delirium, with sordes, etc. On the 15th, just before the "measly rash" disappeared, he had copious sour sweating. His urine was acid nearly all through, and the crisis was marked by such a profusion of lithates as to render the urine all but solid. The bowels were constipated all through. After the sweating he lost all articular pain. The convalescence after the 26th was only impaired by troublesome seminal (or prostatic) emissions, but was otherwise uninterrupted. From this a change of air relieved him.

The following table exhibits the temperature, pulse, and respiration for each day:—

Date.	Temperature of ward.	Temperature of axilla.	Pulse.	Respiration.
July 9	68 deg.	100 deg.	120	20
,, 10, morning	68 ,,	100 ,,	140	30
,, ,, evening	64 ,,	103·5 ,,	150	40
,, 11, morning	62 ,,	101 ,,	120	25
,, ,, evening	67 ,,	102 ,,	120	24
,, 12, morning	67 ,,	101 ,,	130	24
,, 13, morning	65 ,,	102 ,,	130	30
,, ,, evening	66 ,,	101 ,,	120	30
,, 14, morning	64 ,,	101 ,,	120	40
,, ,, evening	65 ,,	102 ,,	130	30
,, 15, morning	62 ,,	102·4 ,,	120	28
,, ,, evening	60 ,,	101 ,,	120	25
,, 16, morning	60 ,,	100 ,,	100	28
,, ,, evening	73 ,,	102 ,,	120	36
,, 17, morning	65 ,,	102 ,,	120	36
,, ,, evening	70 ,,	103 ,,	120	30
,, 18, morning	68 ,,	101·6 ,,	100	24
,, ,, evening	65 ,,	101·3 ,,	100	24
,, 19, morning	65 ,,	99·5 ,,	120	18
,, ,, evening	65 ,,	103 ,,	120	20
,, 20, morning	65 ,,	101·2 ,,	120	18
,, ,, evening	68 ,,	100 ,,	120	18
,, 21, morning	65 ,,	99·6 ,,	120	18
,, ,, evening	65 ,,	100·5 ,,	120	18
,, 22, morning	68 ,,	99·7 ,,	100	18
,, ,, evening	62 ,,	99 ,,	100	18
,, 23, morning	62 ,,	99·9 ,,	100	18
,, ,, evening	65 ,,	99·9 ,,	120	18
,, 24, morning	64 ,,	99·6 ,,	90	18
,, ,, evening	64 ,,	98 ,,	100	18
,, 25, morning	65 ,,	100 ,,	100	18
,, ,, evening	65 ,,	99 ,,	120	16
,, 26, morning	65 ,,	98 ,,	120	16
,, ,, evening	75 ,,	98 ,,	120	16
,, 27, morning	60 ,,	97·5 ,,	110	16
,, ,, evening	60 ,,	97·5 ,,	110	16
,, 28, morning	60 ,,	98 ,,	100	16

The treatment consisted chiefly in fluid nourishment and effervescing salines, with a very small quantity of wine, 4 to 6 oz. being his daily average during the worst part of the fever.

Febricula.

(Under the care of Dr. DAVIES.)

Charles A., aged 24, a draper's assistant, was admitted June 6th, 1864. He had felt sick, and suffered from pains all over his body, and slight rigors for about four days. When admitted, his pulse was 96, his respirations 28, and the temperature of his axilla was 102°, that of the ward being 65°. He was treated with effervescing salines. There were no physical signs of pneumonia, nor was there any expectoration. There was, however, slight crepitus at both apices; and from his history and diathesis, this was judged to be tubercular. The following table shows the daily changes:—

Date.	Pulse.	Temperature.	Respiration.
7th, morning	90	102 deg.	24
,, evening	95	101 ,,	20
8th, morning	90	99 ,,	24
,, evening	95	100 ,,	24
9th, morning	86	99 ,,	24
10th, morning	90	98 ,,	24
11th, morning	80	98 ,,	24
12th, morning	90	98 ,,	20

From this time his convalescence was rapid, although the quick pulse and respiration continued.

THE Metropolitan Association of Medical Officers of Health have elected Dr. Druitt, Medical Officer of Health for St. George's, Hanover-square, as their President for the ensuing year, in the place of Dr. R. D. Thomson, deceased. We understand that the first meeting of the Association takes place this evening, October 15, at the Scottish Corporation Hall, Crane-court, Fleet-street, at 7.30 p.m., when the subject of water and water supply will be brought forward by the energetic and able sanitary reformer, Mr. Liddle.

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Medical Times and Gazette.

SATURDAY, OCTOBER 15.

UNLICENSED PRACTITIONERS.

The recent prosecutions under the Medical Act included some cases in which, in the interest both of the Profession and the public, it was very desirable that convictions should take place. The summons to which this remark is perhaps most especially applicable resulted in a failure, in consequence of the extraordinary manner in which the prosecutor stated his case, or, rather, refrained from stating it. Another of the summonses narrowly escaped dismissal through a doubt on the part of the magistrate as to whether the provisions of the Act applied to the case. These proceedings will doubtless have the effect of directing public attention to the doings of unlicensed Practitioners, and should steps be taken by the Medical Council or any other suitable body for enforcing the provisions of the statute, we need not fear a second failure from the too enthusiastic zeal of the advocate. It is, however, important, with a view to future operations, to get a clear idea of the extent and meaning of the penal clauses of the Act, that we may not strike without being sure of our game. Prosecutions in cases where the law has not been infringed throw discredit on the Medical Profession, and are the greatest possible encouragement and assistance to the persons against whom they are directed. The following is the section under which the recent informations have been laid:—

"Any person who shall wilfully and falsely pretend to be, or take or use the name or title of a Physician, Doctor of Medicine, Licentiate in Medicine and Surgery, Bachelor of Medicine, Surgeon, general Practitioner, or Apothecary, or any name, title, addition, or description implying that he is registered under the Act, or that he is recognised by law as a Physician, or Surgeon, or Licentiate in Medicine and Surgery, or a Practitioner in Medicine, or an Apothecary, shall, upon a summary conviction for any such offence, pay a sum not exceeding twenty pounds."

We would observe, first of all, that the offences particularised in this section as punishable, are all separated by the disjunctive conjunction. It is sufficient in order to support a conviction, that a person wilfully and falsely assume the title of Physician, Doctor, etc., *or* assume a name implying that he is registered under the Act, *or* assume a name implying that he is recognised by law as a Physician, Surgeon, etc. Hence the assumption of the title of Doctor of Medicine by an unauthorised person, if done wilfully and falsely, constitutes a complete offence under the Act. On the other hand, no penalty is imposed by the above enactment on persons who practise without qualification or registration, provided they do not lead the public to believe that they are qualified or registered. These conclusions are drawn from the grammatical effect of the words employed, independently of the light of judicial decision. The cases bearing on the construction of the Act which have come before the superior courts afford but little aid in explaining its provisions. They have usually resulted in favour of the defendants, because the wilfulness and falsity, which is a necessary ingredient in the offence, were not sufficiently made out. One case, however—Pedgrift *v.* Chevalier, 8 W. R. 500—decides in terms that the fact of a man calling himself a Surgeon, and not being registered, will not of itself support a conviction. If we now turn to the reports of the late proceedings, we shall see that Mr. Rogers, a Surgeon not registered, but who had never done any act implying that he was registered, and who, in fact, had never practised as a Surgeon, was, of course, improperly summoned, and the prosecutor rightly mulcted in the costs. In Bearnard's case, Mr. Tyrwhitt at first convicted; but subsequently, feeling a doubt whether a corn-cutter styling himself "Surgeon-Chiropodist" is a "person wilfully and falsely assuming the title of Surgeon," declined to enforce the penalty unless compelled by *mandamus*. The case of Fentiman, we venture to think, was perfectly clear, although a similar offence appears to have been excused by certain magistrates shortly after the passing of the Act on the ground of previous use of the title and ignorance of the law. "*Ignorantia legis neminem excusat*" is a maxim of universal application in criminal cases; and it hardly lies in a man's mouth to say he did not know it was wrong to deceive the public. Mr. Paget, before whom this case was heard, at first declined to convict; but being induced to adjourn the case, subsequently retrieved his error, and decided that an offence had been committed under the Act. So far there is not much to regret in the results of the proceedings. But summonses were also issued against two Practitioners of a far more objectionable class. One of these summonses was brought to what we suppose must be dignified with the name of a hearing, and it would seem from the report that a conviction must have been obtained, there being abundant means of proving the requisite facts. The prosecutor, however, and the magistrate (the latter under great provocation) both lost their temper, and the natural consequence was that the able counsel for the defendant easily procured the dismissal of the summons, the case having, in fact, not been gone into at all. These abortive prosecutions will not be unproductive of good if they rouse public attention to what is undoubtedly an enormous evil. It is but right that some steps should be taken to protect the public against the outrages of the dealers in obscene literature who dub themselves Doctor, and there is no reason whatever to doubt that if prosecutions were conducted with calmness and judgment, convictions would readily be obtained. We do not say that legal proceedings would be effectual to stop the mischief these individuals occasion. The remedy must no doubt be sought in the extension of genuine scientific knowledge. We have before us a disgusting publication, copies of which are distributed by hundreds daily in one of our most crowded thoroughfares by the proprietor of an anatomical museum, who styles himself Doctor, and says, in speaking of his practice:—

"I seek my remedies in far-off climes; some in the distant prairie, where nought has come to denude the vigorous wild herb of its strength and purity; others in the western clime of eternal summer, where the ever-blooming balsam is fanned into perpetual potence by the life-bearing breezes of heaven!"

It is idle to suppose that such trash as the above would impose on a population educated even in the merest rudiments of physical science, and it is to such education that we must look for an antidote to the poison so industriously circulated. We fear, however, it will be long before this remedy will be widely enough diffused, and in the meantime we are guilty of *laches* if we do not use the weapons the law places within our reach.

Death of Another Medical Officer at Bermuda from Yellow Fever.—We regret to state that Dr. Gallagher, Deputy Inspector-General of Hospitals and Fleets, died at Bermuda on September 19. Dr. Gallagher was a highly accomplished and energetic Medical officer. A large circle of friends have to deplore his early death.

THE ENGLISH EXODUS.(a)

When the evenings begin to 'close in' so unmistakably that one can, without a twinge of conscience, shut out the fading day, and enjoy again the luxury of dining by artificial light even at seven o'clock—when one gets to feel thankful to anybody who has the courage to propose a fire in the evening—when croquet-players find the grass getting damp, and the hoops difficult to see even before the 'dressing gong' sounds—when the swallows begin to gather together in flocks preparatory to their annual migration to a warmer climate, and we see

> "Autumn laying here and there
> A fiery finger on the leaves,"

—when these and other signs of the coming winter begin to cast their shadows upon us, the Exodus of English invalids also commences, and the consumptive, the bronchitic, the "delicate," the dyspeptic and the hypochondriacal, the malade-imaginaire, the over-worked and the used-up leave our shores in troops in search of balmy airs, sunny skies, and health. And this Exodus is one of no mean dimensions; Dr. Madden, our latest writer on Climate, tells us that the number of English invalids who "annually spend the winter in the South in pursuit of health" has been calculated at between seven and eight thousand, the large majority being, of course, pulmonary invalids; of this majority we hope that most, if not all, had taken their departure, and reached their chosen place of refuge ere the equinoctial gales from the bitter east had set in; we think that all who travel for health ought to leave England before October, but this is undoubtedly of greatest importance to those who suffer from affections of the lungs. To all who are in search of a "health-resort," and to all who have to advise in the selection of one—to patients, to their friends, and to Medical men,—to all, in short, whom it may concern—we recommend Dr. Madden's book; it is pleasantly and well written, and contains sound and good advice; and the author has had the advantage, as far as his readers are concerned, of studying the places he writes on as an invalid as well as a Physician. To some members of the Exodus it is no great matter where they go; they have no organic disease, or special proclivities to disease; all they need is change—change of scene and change of occupation—freedom from the postman's rap and the ring at the door-bell—from the daily cares, troubles, and anxieties of the battle of life, or from the turmoil and excitement of the *grand monde*—rest, from work, or from dissipation; and it is of no great importance in what direction they bend their steps so long as they get far enough away. The Roman poet tells us that

> "Cœlum non animum mutant qui trans mare currunt."

But this is only partially true; by feeding in "fresh fields and pastures new" the mental powers and the organs through which they act may at any rate be renewed, if not changed. But to the majority of those who travel for health it is of vital importance that they be well advised in their choice of refuge; that they be rightly directed to a climate which is dry, tonic, and somewhat exciting, as well as warm and agreeable, or to one which is sedative and antiphlogistic; and that not only the average temperature, and variations of the thermometer, and the average rainfall be taken into consideration, but also the many other things that go to the making up of what is called "climate"—the kind of soil, the amount of vegetation, the degree and kind of culture of the land, the aspect of the place, the characters of the prevalent winds, etc. We know that our sensations of cold and heat do not always tally exactly with the rise and fall of the thermometer, nor our impressions of the oppressiveness or lightness of the atmosphere with the variations of the barometer; the "sirocco" may produce an intense feeling of lassitude and dejection, and yet the barometer hardly vary a line. The most important point to be attended to as regards temperature is its variability or steadiness; this has been well and forcibly set forth by Dr. Corrigan, in an "Address to the College of Physicians," Dublin—"There is no more fallacious guide than mean temperature. Two places may possess the same mean temperature, and yet their climates, and the effects on the bronchial mucous membrane, may be very different. Thus, of two places, we may have in one a range of temperature within two periods from 30°, or 2° below freezing-point, to 100°, or 2° above blood heat, and the mean temperature 65°. Another place may vary only in its temperature from 60° to 70°, a difference scarcely perceptible to the senses, and the mean is the same, viz., 65°; and it needs no reasoning to show that the true temperature of these two places, and their effects on the pulmonary organs, must be widely different, the one most injurious, the other beneficial. Another point of great importance is the duration of time within which the alternations of temperature occur. If alternations occur, though of trifling amount, within very short periods, they are injurious; if they take place slowly, they are borne with comparative impunity." In like manner it is not sufficient to know only the average annual rain-fall in a place; it is of great importance to note also *how* it falls—the average number of rainy days, and the general hygrometric condition of the atmosphere. Thus the average annual rain-fall in Dublin is 27 inches; in Pau it is 42 inches; but in Pau the annual number of rainy days averages 119 only, while in Dublin it is 224. In Nice the rain-fall averages 26 inches; the rainy days about 60; while in Hyères the rain-fall equals that at Nice, but the number of rainy days averages only 40. In Malaga the rain-fall is 16½ inches; the rainy days average about 29; and in Cairo "rain is very rare, not occurring above from 10 to 14 times annually, usually only falling between November and the end of February, but especially in the latter month, and seldom lasting for more than a couple of hours together;" and Dr. Gigot-Suard states that the air of Cairo "contains 152 times less moisture than that of Alexandria." It is, however, by no means easy to determine the degree of confidence we should place in descriptions of climate. Doctors differ vastly in the reports they give of the same place; and as a rule we are disposed to warn our readers against any book written in praise of one place only. Dr. Alexander Taylor, writing on "The Curative Influence of the Climate of Pau," says "there is a peculiar absence of free communicable humidity in the atmosphere of Pau;" and Dr. F. H. Johnson remarks on its peculiar "freedom from persistent cold, fogs, or harrassing winds;" while Dr. Madden tells us that "during the month of November, 1861, the mean moisture of the air denoted by the hygrometer was ·82 at Pau, compared with ·85 at Kew (near London); and in December the mean moisture of the air at Pau was ·83, which was exactly the same as at Kew;" and he adds, "during the portion of the winter 1861-62 which I passed in Pau, there was a constant combination of cold and fogs, in the mornings and evenings. The thermometer was frequently below freezing point during the night, and there were few days on which some rain did not fall. The streets, the majority of which are never cleansed, were in a constantly sloppy and muddy condition." We know how Mentone—we beg France's pardon, Menton, we should say—has been written up of late, yet Dr. Madden says of it:—"I am convinced that there is no form of disease in which this climate agrees which would not do as well in Nice. And also that many patients, who might inhabit Nice with great advantage, would in Mentone suffer from the depressing influence which the monotony and dull tedium, necessarily attendant on living in a wretched fifth-rate country town, must produce on mind and body." To which we may add that we have heard very

(a) "On Change of Climate: a Guide for Travellers in Pursuit of Health. Illustrative of the Advantages of the various Localities resorted to by Invalids for the Cure or Alleviation of Chronic Diseases, especially Consumption; with Observations on Climate and its Influence on Health and Disease. The Result of Extensive Personal Experience of many Southern Climes." By Thos. More Madden, M.D., M.R.C.S. Eng., Licentiate of the College of Physicians in Ireland, L.F.P. and S. Glasgow; Demonstrator of Anatomy in the Carmichael, or Richmond Hospital School of Medicine. T. Cautly Newby, Publisher.

grave complaints made of the insufficiency of the dietary supplied in the boarding-houses at Menton. And as to Nice itself, the proper uses of its climate appear to be very imperfectly studied or understood. "The majority of invalids sent there suffer from pulmonic disease of some kind, and especially from the various forms and stages of consumption," and yet it would be easy to cite a host of authorities to show that it is one of the last places such patients ought to resort to. Sir James Clark says, "In consumption, the disease with which the climate of Nice has been chiefly associated in the minds of Medical men in this country, little benefit is, I fear, to be expected." Dr. Wahu, a resident Physician, states that "it would be the greatest mistake to assert that Nice, on account of its climate and hygienic conditions, is the locality which agrees with phthisical patients." M. Champouillon asks, "Voulez-vous savoir ce que deviennent les tuberculex á Nice? Allez au cimetière."

Supposing, however, that we have found a place, the climate of which is all that we can desire, there are yet many things to be considered before we can say that residence there is to be recommended to an invalid. It should be easily accessible by land and by sea; for the pulmonary invalid the latter has, we think, a special advantage. Objects of interest, agreeable and sheltered walks and drives, means of recreation and amusement, society besides that of fellow-invalids, plentiful and wholesome food, the sanitary arrangements, all are of great importance, and all but too often exist in a very imperfect degree, or are conspicuous by their absence. Malaga enjoys an admirable climate, inferior only to that of Cairo and Middle Egypt. Dr. Madden passed the greater part of the winter and spring there during three years, and it seems to enjoy his greatest confidence and approbation, yet one gathers from his work a frightful list of drawbacks to residence in the place. "It would be hard to describe adequately the disgraceful sanitary condition of the town. There are main sewers, it is true, in the principal streets, but these only serve as additional sources of miasmatic disease, as from their construction to the present day they have never been cleaned, and, owing to their faulty construction, are always in a very bad state;" they are provided also in the main streets with large *open traps*. "The bed of the Guadalmadina is, however, the real sewer of Malaga, and as this is dependent for its purification on occasional torrents from the mountains, being almost dry for ten out of the twelve months, the invalid cannot be too cautious in selecting a residence as far as possible from its banks." Who can wonder that poor Dr. Noble, of Leicester, died of cholera there? Living is far more expensive than in most parts of Spain. House-rent high, fuel dear, clothes costly, meat tough, dry, and lean—except the pork, which is hardly invalids' food. Fish, however, "is very cheap and abundant," and if you can stand "*toujours perdrix*" you may eat them every day. The fruit and vegetable markets are not well supplied. The cookery is extremely bad. Tea and coffee absolutely undrinkable. There are no amusements; literature and the fine arts are all but unknown. Gambling, drunkenness, and assassination are common; and your rooms may be plundered by robbers, who enter the house through the sewers!

Now, evils of omission or of commission such as these may but little affect the invalids who have no organic disease, or who can still "rough it" pretty well, and who have wealth enough to command all that is best in a place, but to others they are terrible counterbalances to a fine climate, and we fear there is no place of "health resort" abroad in which some or more of them do not exist in a less or greater degree. Sure we are that great numbers of invalids go abroad every winter who would act much more wisely in going to some of our own southern "health-resorts"—places in which they may find an agreeable, moderately warm, and dry climate; English food, English comforts, conveniences, and protections indoors, and the moral support and comfort of knowing that they are within a short distance of home and of Medical advice in which they thoroughly confide. One class of patients we should like to see sent abroad more frequently than they are, those, viz., who as yet have no disease, but only marked constitutional tendencies to diseases of debility and malnutrition; especially children of strumous or scrofulous taint might derive the greatest benefit from a few winters' residence in warm, dry, tonic climates.

Of the climate of Egypt we have said but little, for it is only the wealthy who can at all fairly and fully utilise it, but for these Middle and Upper Egypt offer perfect examples of the "tonic, warm, dry, and exciting climates."

THE WEEK.

A MEDICAL HERO.

THE *Gazette* of Friday, October 7, announces that the Queen has been graciously pleased to give orders for the appointment of Surgeon William Alexander Mackinnon, of the 57th Regiment, to be an Ordinary Member of the Military Division of the Third Class, or Companions, of the Most Honourable Order of the Bath. We can safely assert that no officer in Her Majesty's service has ever won the Companionship of the Bath by more gallant conduct than Surgeon Mackinnon. The occasion of his exploits was the unfortunate assault on the Gate Pah in New Zealand on April 29, 1864, when so many valuable English lives were sacrificed. He not only attended to the wounded under fire, but personally protected them by keeping the natives at bay. He rallied the soldiers, fired several shots in defence of the wounded with his own hand, and shot down a native who was in the act of tomahawking a wounded Englishman. His daring bravery, linked with most valuable Professional services, obtained the recognition of the General commanding in New Zealand, and of the principal Medical officer, Dr. Mouat, C.B. Their representations, contained in despatches published in the *Gazette* of July 15, 1864, procured from the Government this well-merited distinction. What a comment the whole story is on the miserable quibble of "combatant" and "non-combatant" officers!

CRIMINAL ABORTION AT BRIGHTON.

A CASE has come to light at Brighton which is, we suspect, a sample of many others which are never heard of. A young woman, described as a "lodging-house keeper," was living with a man as his mistress, and was in the family-way. She took large doses of ergot of rye and oil of pennyroyal for many weeks, and at last killed herself by it. The facts were brought out before a coroner's jury, who returned a verdict of *felo de se*. So far as the unfortunate young woman is concerned, she has paid the penalty of her indiscretion, and we have no more to say. But there are one or two points in which the conduct of members of our Profession and of the chemists is involved, and they must be shortly touched upon; for it appears that the prescription for the medicine which proved fatal, or a similar one, had been used by the deceased at various times during the last four years, and in particular that she took it in June, 1862, whilst she was pregnant with a child who is now alive. The prescription ran thus:—

"℞. Tinct. secal. cornut., ʒij.;
Ol. menth. pulegii, ʒij. misce.
"Take one teaspoonful in water three times a-day.
"J. D. R."

The Practitioner who gave it alleges that it was for a "bronchial affection." As, however, he not only declined to come forward and give evidence at the inquest, but kept out of the way and could not be summoned, we have no means of knowing what was the kind of "bronchial affection" for which a respectable Practitioner prescribed these irritating medicines to a possibly pregnant woman. At any rate, the poor patient was not ignorant of the effects on the womb, for having again become pregnant, she procured a constant supply from two

chemists at Brighton; in fact, she took for eleven weeks the medicine mentioned above. She was seen by Dr. Stephens on Monday evening, October 3, in a state of great exhaustion, and died early the next morning. That gentleman made a post-mortem examination, which showed that deceased was four months pregnant, that there was no cause of natural death, but evident traces of the action of irritant poison. The purpose for which she took medicine was perfectly well known to all about her, and the question arose in the Coroner's Court, as it will naturally arise in the minds of our readers, How did she procure this poison of which she died? Were the chemists justified in supplying it?

It appears, from the evidence of Mr. Johnson, chemist, of North-street, that he had furnished the deceased with a "similar medicine" four years ago; he also supplied her with one bottle about five weeks ago.

Mr. Garratt, chemist, swore that he had made up the prescription first about twelve months ago; that he had inquired, and had been told that deceased had received it from a Medical man. "He supplied her with *three bottles* the first time, and she made no complaints to him of any ill effects. On her applying for more of the medicine, about six weeks since, he had no suspicion that she intended to procure abortion." "He *only had an entry in a small memorandum book* of his account with deceased, and therefore could not say how much medicine she had had during the last nine weeks. On the 24th August he had four mixtures and two boxes of pills entered to deceased, and he believed he had supplied one more mixture since; but although it was not paid for, *he had no entry of this.*" So runs the report in the *Brighton Gazette.*

The evidence of another chemist was very significant:—

Mr. Thomas Stowell (after having received the usual caution) deposed: "Having seen my name mentioned as having been found on some bottles at the deceased's house, I have looked through my day-book for the last two years, and I find on the 9th December, 1863, this entry—"Miss Kingman, age 26, 18, King's-road, catamenia, ceased six weeks." I prescribed a decoction of linum catharticum and compound rhei pills. I have never seen the patient before or since, nor supplied any medicine or drug to her. I supplied her only with one 16-ounce bottle."

The law as laid down by the Coroner gave the case a sufficiently serious look:—

"If," as he told the jury, "she took this drug for the purpose of procuring abortion, she was guilty of self-murder, for the law clearly set forth that a woman who took any deleterious substance, or inserted any instrument into the womb, for the purpose of procuring abortion, and in doing so caused her own death, was guilty of self-murder. But their inquiry did not stop there, for the law further implied that *all accessories—that is, all those who supplied* matériel, *knowing that the woman required them for the purpose of procuring abortion—were guilty of murder.* That was the rule generally laid down by the law, as he gathered from the opinion of the celebrated Chief Justice of the Court of Common Pleas, John Jervis. It now, then, became their duty to consider how far the chemists and the Doctor who made the prescription were implicated in this matter."

The Brighton chemists, knowing their position, brought forward evidence of two kinds on their behalf. First, Dr. Edward Roberts, of Burgess-hill, swore that he came forward out of friendship to Mr. Garrett, who had formerly been his assistant, and testified also that he was in the habit of prescribing ergot in as large or larger doses—always in womb affections, and for so long a time as three weeks. He ridiculed the idea that ergot could anyhow produce death.

Another class of evidence, related to the customs of the trade. Mr. Kemp, a chemist of fifteen years' standing, said that if such a prescription had been brought to him by a strange woman, he should make it up. And so far as can be gathered from his evidence, although the circumstance might excite "some little remark," or some little inquiry as to whether the patient had seen her Medical attendant, yet any woman might be supplied freely from an old prescription with any quantity of his medicine.

We will say no more at present, except to call the attention of the Pharmaceutical Society to the following particulars:—1st. The custom of prescribing, *per se.* 2ndly. The evidence that strong medicines, such as *linum catharticum*, were prescribed for a woman of 26, whose catamenia had ceased six weeks. This cannot be called mere *counter practice;*—no one who knows and feels the responsibilities of his Profession, and who would not tamper with human life, and run the risk of being an accomplice in a crime of the deepest dye, could possibly prescribe a drastic medicine for a woman of 26 whose catamenia were obstructed six weeks, without the most minute inquiries, such as require special Medical knowledge. 3rdly. We have the evidence of Mr. Stowell, not only as to customs of prescribing, and of prescribing for obstructed catemenia, but as to some superior knowledge of this class of case. If Mr. Stowell's evidence were correctly reported in the *Brighton Observer*, he said, in reply to a question:—

"By the jury: If the prescription produced was sent to me, I would not dispense the medicine.

"Dr. Stephens: Why not?

"Mr. Stowell: *Because we have better medicine to produce the desired results.*

"Dr. Stephens: Then, I suppose, you consider it dangerous?

"Mr. Stowell: Yes, Sir. I should not dispense it under any circumstances."

4thly. Spite of the habit of prescribing for such special cases, we find respectable chemists actually professing to be ignorant of the only purpose to which a compound of ergot *and pennyroyal*, in such doses, could be applied by a woman. We are to suppose the Brighton chemists ignorant of what every old woman is perfectly familiar with. We desire to hear the Pharmaceutical opinion of this case, officially; and meanwhile say: Take your line and keep to it. If you are to prescribe, please to study Medicine, so that there may be no chance of giving *linum catharticum* to pregnant women. But it will not do, both to prescribe and then to pretend that you are mere ministers who sell whatever you are asked for, and that even though you supply a woman with means of abortion, you are to be considered innocent of all complicity.

THE ATROCIOUS CHARGE AGAINST A SURGEON.

It is the unfortunate lot of members of the Medical Profession to be especially exposed to such abominable charges as that made by the girl English against Mr. W. R. Goodfellow, of Limehouse, at the Thames Police-court. The necessary relations of doctor and patient give unusual opportunities to the scheming, the prurient, and the hysterical of the female part of the community to make accusations which, however unfounded, it may be difficult—nay, impossible—to disprove. Fortunately, in the case of Mr. Goodfellow, he was enabled to bring forward the most clear and crushing evidence of his own innocence, and of the turpitude of his slanderer. But it is not always that an *alibi* can be established, and a reputation so triumphantly saved. The general belief in the pure and high-minded intentions and actions of Medical men, which a long experience has impressed on the public mind, is doubtless the great bulwark of the Profession in this matter. But it seems that at present there is an epidemic tendency to invent such slanders amongst women and even children of debauched minds. Every day's police report chronicles charges which are either highly improbable or clearly false. To intensify the evil, we have a Society who make it their business to collect cases and evidence, and to furnish funds for prosecutions. No doubt that the motives of many of the good people who subscribe to it are above suspicion, but still we well know that with some minds a smack of lechery would be a wonderful stimulant to move them in the cause of public morality; and it might be urged that more harm is really done to female virtue by the publication of such nasty stories, than

good by their investigation. In the *Times* of October the 12th is a letter from a barrister, calling attention to the fact that the "Society for the Protection of Women" issues placards which are exhibited in shop windows, inviting not only secret, but anonymous, accusations. The writer goes on to say that this Society has a system of espionage and a powerful machinery. If this be true, we think that it is high time that a Society for the Protection of Males should be started. We should like to know whether the Society for the Protection of Females ranks amongst its supporters any of the members of the Female Medical Society of the Hanover-square Rooms.(a) We strongly suspect that a like warmth of the imaginative faculty would find fuel in both.

THE MEDICAL REGISTER.—PRETENDED QUALIFICATIONS.

Mr. Talley informs us that at the Marylebone Police-court, in the case of the so-called "Dr. Scott," he had three witnesses in attendance. He says that he first called Dr. Henry Scott, but that as soon as he was called the magistrate dismissed the case. This witness was called to prove that "Dr. Scott, *alias* Henry Hamilton," took the title of Physician, and that he represented himself as "Dr. Henry Scott," the witness himself being the only duly qualified and registered Physician of that name in England. Mr. Talley holds that a man who calls himself Doctor and practises Physic must be held by fair inference to imply that he is a Doctor of Medicine. Mr. Talley says that he tendered evidence to show that "Dr. Scott" was not Dr. Scott, but one Henry Hamilton. He also produced legal documents alleged to relate to "Dr. Scott" under his former name of Hamilton. Mr. Talley also informs us that Mr. Mansfield granted "a case" for argument in one of the higher courts, and that this case will be settled and argued in due course. There is also a question whether a *mandamus* shall be applied for to compel Mr. Mansfield to hear the evidence. Mr. Talley says that, although not employed by the Medical Council, he was in correspondence with them, and was led to believe by their officers that Mr. Rogers, the dentist, had no qualification as Surgeon.

FROM ABROAD.—GREAT MORTALITY IN THE WASHINGTON HOSPITALS—DIMINISHED MORTALITY IN THE FRENCH ARMY.

A careful inspection of the Hospitals at Washington made recently by a Medical member of the Sanitary Commission supplies some interesting information respecting the excessive mortality which these exhibit, in spite of the great care and attention paid to the wounded by the able and efficient men who now preside over these institutions. He mentions four causes as especially contributing to this great mortality. 1. The chief of these is excessive exhaustion from fatigue of prolonged transport and great suppuration. There seems to be no doubt of the inadequate care and subsistence during transport, the sufferings of some of the wounded men being terrible. The greatest sufferers were the subjects of compound fracture of the thigh and severe wounds of the knee and leg, the means for supporting these being utterly inefficient, great pain and much loss of life consequently resulting. The severe character of so many of the wounds brought out fully the defects of the means of transport. In a single Hospital there were 107 compound fractures of the thigh, 42 severe injuries to the knee, and 225 amputated limbs; and the Surgeon in charge of it stated that he had seen 45 patients die in a single day—nearly all from exhaustion during transport. Again, of 20,930 wounds, 749 were compound fractures of the femur, 480 having been transported unamputated; 242 were wounds of the knee, 138 unamputated; and 948 fractures of the leg, 650 unamputated. There were also 566 gunshot wounds of the lungs and thorax. It has been found that a transported fracture had to be moved, off and on, at least fourteen times before resting in a general Hospital. The number of movements is often much more, and very few of the fractures which were brought to Washington had any supporting appliances. 2. Pyæmia is the next cause of excessive mortality, abounding everywhere in the Hospitals, of which it is the great scourge. It can only be prevented by supplying the wounded with good and varied diet and means of support during transport as well as in the Hospital wards. 3. Secondary hæmorrhage occurred with frightful frequency and fatality, chiefly arising from the low vitality of the subjects. 4. Tetanus was of daily occurrence during the period of low vitality from exhaustion, the number of cases rapidly diminishing with the general improvement of the appearance of the wounds consequent on greater care and better diet. Exposure to cold, chills, and damp during transport were fertile causes. The remedies suggested by the Commissioner are—1. Improvement of the diet of patients in the field, during transport, and in Hospitals. 2. Special means for improving the local atmosphere of the wards, etc., in Hospitals. 3. The establishment of Hospitals at higher altitudes and in healthier localities. 4. Supplying more adequate material aid to the Surgeons in the field for the support and care of fractures.

In contrast with the above statement we have a Report to the Emperor from the French Minister of War upon the diminution which has taken place in the mortality of the Army, in continuation of a former communication which we have already noticed. He states that, according to the official returns made in 1846, the annual mortality among the troops of the interior was 19 per 1000 men, this rising for the troops in Algeria to as high as 64. In the years 1862 and 1863 there were but 10 deaths per 1000 in the interior, and about 12 in Algeria, showing a diminution of 48 per cent. in the one, and 82 per cent. in the other. As a consequence of this progress, the number of days of treatment in the Hospital, which in 1842 amounted to $\frac{1}{23}$ of the effective force, was lowered to $\frac{1}{30}$ in 1852, and to $\frac{1}{39}$ in 1862. The Minister, while fully admitting the great benefits which have resulted from the improved hygienic condition of the army, especially with regard to the food and more healthy lodgment of the troops, maintains that the principal cause of the favourable results which he announces is to be found in that entire modification which the French army has of late been undergoing with respect to pay, re-enlistment provisions for pensions, and other advantages comprised under the term "*dotation*," by which men have been induced to assume cheerfully as a profession what had often hitherto been an irksome and wretchedly paid occupation. Prior to the year 1855, the number of soldiers who had served more than seven years in the army scarcely amounted to 9 per cent., while at the present time it reaches 33 per cent. The coincidence of this changed proportion with the diminution of mortality has led, he says, to a scientific investigation; and the calculations of Medical statistics have established that the intimate relation of cause and effect exists between these two facts. The following statement shows that there can be no doubt upon this point:—The deaths which take place from disease among soldiers who have been less than one year in the service amount to 11·45 per 1000 men; from 1 to 3 years' service, 14·38; from 3 to 5 years' service, 9·30; from 5 to 7 years' service, 7·40; from 7 to 14 years' service, 5·35; and above 7 years' service 7·11. Thus soldiers from 7 to 14 years of service are those who exhibit the lowest mortality; while those of more than 14 years' service, although the veterans are included among them, furnish better results than the four categories of the first seven years. The "*dotation*" law having, as shown above, almost quadrupled the number of men who have served more than seven years, we can at once see what a preponderating influence it must have exercised in diminishing the mortality of the army. "This law," Marshal Randon concludes his report by observing, with justi-

(a) In the *Times* of October 13 appears a letter from the Secretary of the "Associate Institution for Improving and Enforcing the Laws for the Protection of Women," disclaiming the issue of the placards, and ascribing them to the "Marquis of Townshend's Society for the Protection of Women and Children." We believe the Marquis of Townshend is the nobleman who was expected to preside at Dr. Edmunds' address at the Hanover-square Rooms.

fiable pride, he having been its original proposer, "which has given greater solidity to our military power, and constituted a profession for the common soldier, furnishes, therefore, also the most favourable results as regards the sanitary condition of the army, the undeniable proof of which I have now the pleasure of laying before your Majesty."

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF BIRMINGHAM.

(Concluded from page 238.)

THE SANITARY CONDITION OF BIRMINGHAM.

Population.

The population of Birmingham and the districts into which it is divided was described in the introductory part of our history of the town, at page 16 of the present volume of the *Medical Times and Gazette*. The population is there given, on the Census of 1861, as 212,621. At the present moment the population is considered to have increased to 296,078.

Value of Life.

The value of life in Birmingham has lately been computed in the Registrar-General's office, and is herewith rendered from some returns which are in course of publication. The first return has reference to the value of life at different ages.

Average Annual Rate of Mortality in Birmingham from all Causes, at Different Ages, to 100 *Living, during the Ten Years* 1851-60.

	Males.	Females.
All ages	2·804	2·503
Under five	10·029	8·866
Five to ten	1·031	·990
Ten to fifteen	·497	·490
Fifteen to twenty	·653	·656
Twenty to twenty-five	·792	·737
Twenty-five to thirty-five	1·012	·985
Thirty-five to forty-five	1·624	1·372
Forty-five to fifty-five	2·587	1·908
Fifty-five to sixty-five	4·581	3·523
Sixty-five to seventy-five	9·535	7·844
Seventy-five to eighty-five	19·792	17·445
Eighty-five and upwards	38·889	34·545

Average Annual Mortality in Birmingham from Different Causes, to 100 *Living, from* 1851 *to* 1860.

	Males.	Females.
All causes	2·804	2·503
Typhus	·102	·122
Cholera, diarrhœa, and dysentery	·232	·207
Other zymotic diseases	·407	·385
Cancer	·022	·047
Phthisis	·300	·243
Scrofula, tabes mesenterica, and hydrocephalus	·113	·079
Disease of brain	·288	·231
Disease of heart and dropsy	·123	·125
Disease of lungs	·518	·433
Diseases of stomach and liver	·103	·108
Diseases of kidneys	·040	·019
Violent deaths	·137	·080
Other causes	·419	·434

The relative mortality of Birmingham, compared with England altogether, is high, being, for all ages, as 5·317 per cent. in Birmingham to 4·437 for all England. Indeed, Birmingham comes very near to Wolverhampton in respect of mortality, the latter place having a general mortality of 5·518 per cent. There is a broad difference, however, in the two manufacturing towns in respect to the ages during which the mortality is highest. In Wolverhampton the enormous increase of mortality occurs during the first five years of life: in Birmingham the increase is not so marked until the middle age is reached. Thus, in Birmingham, under five years, the rate of death per cent is 18·895 as compared with 13·517 for the country at large, and with 20·959 for Wolverhampton. After that age the figures go on with but slight increase of Birmingham and England up to the age of thirty-five, when the increase becomes loudly pronounced. The figures stand as follows:—

Percentage Mortality, both Sexes included.

Age from Thirty-five to Forty-five.

England.	Birmingham.	(Wolverhampton.)
2·463	2·996	(2·646)

Age from Forty-five to Fifty-five.

England.	Birmingham.	(Wolverhampton.)
3·316	4·495	(3·689)

Age from Fifty-five to Sixty-five.

England.	Birmingham.	(Wolverhampton.)
5·786	8·104	(6·594)

Age from Sixty-five to Seventy-five.

England.	Birmingham.	(Wolverhampton.)
12·399	17·479	(14·075)

Age from Seventy-five to Eighty-five.

England.	Birmingham.	(Wolverhampton.)
28·101	37·237	(31·316)

Age from Eighty-five and Upwards.

England.	Birmingham.	(Wolverhampton.)
59·964	73·434	(49·438)

While, then, there are special causes at work which raise the mortality of Birmingham above the general mortality at every age, we observe in comparing the town with another and neighbouring town that there are some hidden agencies in force by which there is secured a comparative conservation of life in the earlier periods, and a rapid destruction of life after the time when the body may be considered to have attained its full prime. This destruction predominates on the male side, but not largely so, as our first table given above will show.

These facts are drawn from the Registrar-General's papers. In addition, I have been favoured by Mr. William Cooper, the local Superintendent Registrar, with another very useful statement, showing the mortality of Birmingham since 1838. Mr. Cooper is of opinion that on the average there has been no appreciable difference in the rate of death during the last thirty years. In different years, however, the fluctuations have been very remarkable. Thus, in 1861 the death-rate was as low as 24·4 per thousand; while, in 1862, it rose to 28 per thousand.

Mr. Cooper's Analysis of the Death-rate of Birmingham from 1838 *to* 1862.

Population of Parish of Birmingham.

1841	138,185	1851	173,591	1861	212,621

Deaths in Parish of Birmingham.

1838	3358	1851	4988 or 28·6 per 1000
1839	3657	1852	4581
1840	3707	1853	4949
1841	3673 or 26·6 per 1000	1854	6021
1842	3579	1855	4663
1843	3342	1856	4730
1844	3883	1857	5604
1845	3605	1858	5798
1846	4686	1859	5273
1847	5406	1860	4683
1848	4658	1861	5193 or 24·4 per 1000
1849	3843	1862	5719
1850	4057		

In a paper read before the Statistical Society by Mr. W. L. Sargant, a comparison is struck between Birmingham and London as regards healthiness and mortality. Mr. Sargant, contrary to Dr. Farr, contends that for purposes of comparison the male mortality is the most important element. Hence, he disputes certain conclusions which have been arrived at by the Registrar-General. I consider it only fair to append Mr. Sargant's observations. He says:—

"Of the very large towns, Birmingham stands next to London in recorded healthiness, the two having death-rates of 24 and 26½ respectively. The necessary corrections, I believe, show that Birmingham is the healthier of the two. The difference in the male death-rates is 2·35; but this is for Birmingham parish, compared with the whole of London, including Hampstead and Sydenham. The difference in the male death-rates of London and the borough of Birmingham is less than 1 (·71). Again, London has a far larger proportion of affluent and educated persons than any manufacturing town has. London has probably three times as many domestic female servants, and therefore, at any rate, twice as many affluent

families. Now, by taking in the suburban parts of the borough of Birmingham, the death-rate is reduced by more than 1½; by doubling these affluent and educated parts, the death-rate would be reduced a second time by 1½, at once turning the scale against London. Nor is this all. We ought to compare not only class with class, but also age with age. An infant asylum, however healthy, will have twenty times as many deaths as a public school of equal numbers. A fast-increasing town faintly resembles an infant asylum; London, which increases less fast, faintly resembles a public school. On this principle, according to my calculations of specific mortality eight years ago, a reduction of 1 in 1000 should be made in the death-rate of Birmingham as compared with that of London.

"The comparison will then stand thus:—

		London.	Birmingham.
Recorded mortality		24	26½
" " of males . . .		25·70	28·05
" " " in the borough		—	28·05
Deduct—			
1. On the supposition that Birmingham had as many affluent families as London . .	1·64	—	2·64
2. For excess of juvenile population	1·00		
		25·70	23·77

"This account, if it be correct, shows that whereas according to the register, Birmingham has a death-rate higher than that of London by 2½, it has really a lower death-rate by 2. An alleged difference of 4½ in the 1000—say one-sixth of the whole—is startling enough; but I believe my statements to be correct.(a)

"As to juvenile mortality, I need scarcely recapitulate what I have said. I have given my reasons for believing that there has been great exaggeration as to the deaths of children in towns; and I have attributed this error in part to the fallacious mode of stating the death-rate from those left alive instead of from all those exposed to the risk of death. I have also given the reasons for my conjecture that it is not impurity of town air so much as want of open air that multiplies the deaths of children."

Speaking of the effects of sanitary improvements, Mr. Sargant offers an opinion which is very different from that usually accepted by sanitary reformers. He remarks—

"Comparing the two decennial periods of 1841—50 and 1851—60, there has been a marked decrease in the death-rate of several towns, especially of Hull, which fell from 31 to 25; and of Liverpool, which fell from 39 to 33; making a decrease of 6 in each case. But in both these towns, the high mortality of the earlier period was exceptional, having been caused by frightful visitations of cholera, aggravated in Liverpool by the Irish famine and the consequent Irish immigration of dying persons. Manchester also has a diminution of 1½ in the 1000, and London of less than 1: perhaps these two improvements may be permanent. In Birmingham the death rate was a shade higher in the latter period; though a large sum had been spent in drainage, and many nuisances had been removed. As no cholera was ever known there, the comparison of the two periods is a more satisfactory one than that of London and of Manchester, and still more than that of Hull and of Liverpool. Bradford district was worse during the second period, notwithstanding great efforts at improvement. Some other towns exhibited a slight deterioration, many others a slight improvement.

"On the whole it appears that the large outlay on drainage and purification has done nothing like what it gave promise of twenty years ago. I am, therefore, brought to think that causes other than an impure atmosphere must be assigned for the painfully high death rate found in great towns. In the case of the men, and partly of the women, one cause is the working under cover instead of in the open air: another doubtless, is the expenditure of high wages in coarse pleasures, unchecked by a knowledge of the laws of health. In many towns the undue employment of mothers causes the deaths of many infants: in all, but especially in London and Liverpool, the want of open-air amusements is answerable for the deaths of many children who had survived infancy. Unfortunately, these mischiefs are incapable of speedy correction. Ten years, and so many millions of outlay, would reform the whole drainage of the kingdom; but a generation would not do much to alter the habits of the nation; and a century will not, as far as we know, banish glass windows from workshops, and turn cotton-spinning into the open air."

Water Supply of Birmingham.

The Waterworks Company has one reservoir at Perry, three at Witton, and one at Aston. The first four are supplied by streams rising in their respective neighbourhoods, and pour their waters into the one at Aston. This also receives water from the River Tame. From the reservoir at Aston the water is pumped to Birmingham by four engines. There are two other reservoirs at high levels—namely, in the Monument-lane and the Hagley-road; but these are only for engineering purposes, the water from Aston being pumped into them, and afterwards gravitating to the upper parts of the town. The quantity of water used varies very much with the season. The average quantity pumped up to Birmingham is from forty to forty-five millions of gallons a-week. During the present month (July, 1864) as much as forty-eight millions of gallons was supplied in one week. Taking the population at, in round numbers, 300,000, this is equivalent to nearly three gallons a day for every man, woman, and child. Of course, a considerable quantity of the water is used for manufacturing purposes and for watering the streets.

The water supplied to Birmingham is of good average quality. As the composition of spring and river waters varies much at different seasons, the quality of the water supplied to the town is subject to slight fluctuations. The principal constituents of the saline matter contained in these waters are lime salts. These are common to all spring and river waters, and although in one sense they must be regarded as impurities, yet on the other hand, it may be maintained that no water is fit to be consumed which does not contain them, as they prevent the solution of lead.

Streets and Dwellings of the Poor.

The streets of Birmingham are very irregular; but as a rule they are wide, well paved, and clean. The houses are dingy, I presume, from deposit of carbon, and the town consequently has a gloomy appearance when compared with towns free from the manufactory and workshop. In the dwellings of the poor, overcrowding does not present itself in a marked degree; for of late years large numbers of small houses, giving a rental of from 3s. 6d to 5s. per week, have been erected, to the great advantage and comfort of the artisan classes.

From the results of the last census, it appears that in Birmingham every hundred persons possess 1·25 acres for space; and that the average number of persons to each house is 5·01.

Drainage.

The drainage of Birmingham is as yet very defective. Prior to 1851 a system of sewers was carried out, and since then up to 1861 further advances have been made. I find by a map which the town surveyor has been so good as to lend me, and in which the system of sewerage, actual and projected, is very perfectly marked out, that the central part of

(a) *Foot-note by Mr. Sargant.*—Dr. Farr has disputed the accuracy of this calculation on the ground that the registered deaths in Birmingham fail to include much of the mortality in public institutions, several of which, as he alleges, are outside the boundaries of the borough. Dr. Farr seems to me, in making this statement, to bring a serious charge against his own handiwork; he tells us that we cannot trust the register for the mortality of towns, because it takes no note out of London of the locality of public institutions.

It happens, however, that in the present instance the objection is unfounded. The parish Workhouse, the Borough Lunatic Asylum, the Borough Gaol, and the Hospitals are all situated within the borough. Some of the borough paupers, indeed, are sent elsewhere; but the deaths among these are balanced by an equal number of deaths of imported sick persons, as I will show.

That part of the borough which consists of the parish of Edgbaston sends its paupers to King's Norton. I have been unable to learn exactly how many deaths I have to charge on this account, but an approximate estimate is easy. The deaths at King's Norton Union in the year ending Michaelmas, 1863, were 31, of which 12 might belong to the parish of Edgbaston.

Those parts of the borough which consist of the hamlets of Deritend and Bordesley, and of Duddeston, send their paupers to Aston Union, where the total annual deaths from 1858 to 1863 were 41, of which 30 might belong to Birmingham.

It follows that the extended borough deaths might amount to 42 annually out of a population of more than a quarter of a million (on the average of 1851-60). This would raise the death-rate from 25·2 to 25·4.

But I cannot leave Dr. Farr this crumb of comfort. The Hospitals I have mentioned as being within the borough receive some patients from outside the borough; and I am informed that the number which come to the General Hospital from the Black Country is considerable. The whole deaths in 1861 were 210 in the General Hospital, and 79 in the Queen's (House of Commons Paper, "Deaths," ordered to be printed February 5, 1863, 12); total 289. If one-seventh of these were strangers (a low estimate, I believe), this number would balance the extended pauper deaths.

On the whole, the calculation in my text is not touched by Dr. Farr's objection. But I regret to see that we have here, as regards towns generally, another reason for distrusting the Registrar-General's figures.

the town is thoroughly intersected with sewers, and that, in fact, there is no district in which there are no sewers. But still if the town is ultimately to be placed on a complete system there remains a vast network of sewers to be constructed. At the close of the year 1863 the length of the sewers completed was 74½ miles, and the length remaining to be completed was 51½ miles. In the absence of sewers, cesspools are made to suffice, and while the whole question of disposal and utilisation of the debris of this immense population is under consideration there are, I understand, many advocates for an improved method of cesspit convenience as against the extension of sewer. Amongst these Mr. Edwin Chesshire is foremost. He, as is well known, has devised an intercepting tank or catch-pit for the reception of the solid portions of sewage.

Mr. Chesshire's "catch pit," or intercepting tank, is so constructed that it may be applied either to a common privy in lieu of an ash pit, or to a water closet at some point intermediate between the seat and the sewer, catching the excreta of the household, and retaining the solid or valuable portion in a portable form, while the liquid passes away into the sewers.

The plan or form at present preferred is that of an iron box, large enough to hold the solid part of the excreta of an average household for from eight to twelve months, and yet, when full, within the power of two strong men to lift. The pipe from the privy, or closet, passes into the top of the box, by preference, at the opposite corner to the outlet or waste pipe, which, placed at the bottom of the box, is divided from the main part by a perforated grating extending across the corner, and the whole height of the box. Except as to the inlet and outlet pipes, the box is hermetically sealed, though the lid can be readily removed when it is desirable to empty it. The connection of the inlet and outlet pipes to the box can also readily be separated and remade. The boxes are all made to particular gauges. A full one can be removed and an empty one put in its place in five or ten minutes, and this, if necessary, may be done in the day-time, without any annoyance to the household, neighbours, or passers-by.

Mr. Chesshire has set up in his own house, or rather immediately outside of it, one of these intercepting tanks, and he was kind enough to explain to me its action. It unquestionably works well, and with infinitely less of trouble than would at first be assumed. If his system were generally adopted it would follow that a system of sewers would still be required for the conveyance away of the liquid part of the sewage. But it is urged very forcibly that the construction of sewers for this intention would be comparatively simple and inexpensive; that as the quantity of water that passes out of a town where there is no flooding from rivers or marshes cannot be much greater than the supply of water into the town, a system of efferent pipes like to those that bring in water would suffice; and that fluid sewage thus carried away might easily be caught and afterwards utilised. But I must not trespass further on this ground; suffice that if the "Chesshire" tank were adopted on a general scale, there seems to be no town in which it could be applied with better chance of success than Birmingham.

Diet of the People.—Dining Halls.

I find amongst my Medical brethren an unanimous expression of opinion that the whole population of Birmingham is well fed. The lowest classes obtain animal food at least once a day. Pork is the staple article of animal food amongst the lower classes. Drunkenness is not so marked a vice as in many other towns. There is no comparison between Birmingham and London in this respect. I made a night survey twice in Birmingham to see the worst of it, and was most agreeably surprised at the quiet and sobriety that prevailed. Of course drunken men and drunken women too were met with, but I could go into one particular street in London, I think, at any hour between sunset and midnight, and could find more helplessly drunken wretches there than I saw in many hours of night perigrination in all Birmingham.

The dining-hall movement, commenced so happily and continued so successfully in Glasgow, has been followed up in Birmingham with equal satisfaction. The halls are fitted up with great taste and comfort, the waiting is excellent, and the provisions all that could be desired. You enter the hall and find a ticket keeper at hand, who tells you the bill of fare. Soup, 1d. a dish; haricot mutton, or roast beef, or boiled mutton, or other similar dish, 1d.; vegetables, 1d.; bread and cheese, 1d. Fourpence for a good dinner. Daniel Lambert himself could hardly spend a shilling over one meal. I paid a visit to one of the halls for luncheon, and had soup for a penny that was perfect of its kind, and saw a hundred people dining as neatly as at a London club, and more comfortably than in the majority of eating-houses. The capital of the company that has started the dining-halls is £5000, in 250 shares of £20 each. The calls are £1 a share, and never exceed £2, an interval of three months occurring between each call.

Small as these sums appear, and small as the profits would appear, the experiment in Birmingham succeeds. The business done is enormous. School boys dine in the halls, artisans dine there, workwomen dine there, clerks and others lunch or dine there, and many send at luncheon hours for a fourpenny meal which answers for a dinner. And the best of all is that the people are well fed. If in London a number of companies were formed, and the movement were more actively carried out than it has been so far, establishments as useful as profitable would soon rise in every thickly-peopled locality, where good food, ready cooked, is asked for at the cheapest possible rate.

Epidemics and Endemics.

The returns of the Medical officers of the Union Districts of Birmingham afford a valuable insight into the prevailing epidemic and endemic diseases of Birmingham. I have analysed these for the year 1863, and find the following results. The labour has not been light, but it is well repaid:—

	Cases.	Deaths.
Of mild fever in the year there were	1577	3
„ Typhus and typhoid fever	116	7
„ Scarlet fever	453	22
„ Measles	427	5
„ Small-pox	19	0
„ „ after vaccination	6	0
„ Whooping-cough	748	12
„ Erysipelas	259	1
„ Diarrhœa	1632	40

Thus, of the epidemic and endemic disorders for the year, diarrhœa is first in numbers of cases and mortality. Mild fever comes next in number of cases, but with a low mortality. Scarlet fever, in number of cases, is high, and exceeds largely in number of fatal cases. Measles prevails almost to the same extent as scarlet fever, but it is very much less fatal than its ally, and whooping-cough, ranking even higher than scarlet fever in number of cases, is moderately low in mortality. Typhus and typhoid fevers are exceedingly low according to these calculations, and I may add that the fact accords with the common experience of all the Medical Practitioners in the town with whom I spoke on the subject. The same absence of these fevers, usually the plagues of great communities, was observed in Wolverhampton. There is some simple explanation for this circumstance, which, if it could be given, would be of great service to science and humanity. Is it that the community generally is better fed than in the towns where the fevers reign year by year and day by day? I think so.

Cholera has never been epidemic in Birmingham, and small-pox, as our figures show, is a very rare disease. In 1764 there would hardly be a face in the iron town that would not be more or less pock-marked; and how many would die annually? Now, to see a pitted face in that vast concourse is a phenomenon, and amongst the poorest classes only 19 suffer and none die! Remittent fever, the terrible scourge of the town in Dr. Pearson's time, seems to have left it altogether.

Vaccination.

Vaccination is very effectually performed in Birmingham. The following table supplies all the statistics of the public vaccination since the year 1850:—

Vaccination Extension Act.—Birmingham Parish.

Year ending 29th of September.	Vaccination District.	Number of Persons Vaccinated by the Public Vaccinators.	Number of Births.	Observations.
1850	Birmingham	4315	6365	This return does not include vaccinations in private practice, or those performed in public institutions, which are, it is believed, numerous.
1851	„	6341	6906	
1852	„	4461	7585	
1853	„	3093	7595	
1854	„	3978	7959	
1855	„	3625	8068	
1856	„	3191	8056	
1857	„	4149	7911	
1858	„	3567	7964	
1859	„	3417	7909	
1860	„	4401	8604	
1861	„	3707	8703	
1862	„	3078	8297	
1863	„	4698	8757	

Etiology.

The etiology of Birmingham has already been rendered so fully in the reports of the Hospitals, that it would be but repetition to dwell on it in this place. I shall therefore do no more than state that in this place, as in all others where swine flesh is the leading dish at the tables of the working classes, tapeworm and other forms of hydatid affection are prevailing affections. Trichinosis, however, has not yet been recognised in the district.

Laws of Health.

In connection with the education and health of Birmingham I have much pleasure in directing attention to the *Educational Prize Scheme* and its special prizes for proficiency in knowledge of the *Laws of Health.*

The scheme itself has been established to promote a higher standard of education in the public elementary schools of the town and its neighbourhood. It offers numerous prizes for competition among the pupils of these schools, and examines the candidates. The examination is conducted in the Town-hall.

The prospect of these rewards is not only a direct incentive to the children, but, by exciting a healthy rivalry between the various schools, the scheme provokes more industry and earnestness among the teachers. This prize scheme, in fact, forms the university in the primary education of Birmingham, the various elementary schools representing its colleges. It has been most successful. In connection with it Dr. Fleming has instituted prizes for proficiency in knowledge of the laws of health. The age of the candidates must not exceed 16. The book which he recommends them to read is Mrs. Charles Bray's "Physiology for Schools." Dr. Fleming himself has conducted the examination. Questions suited to the young candidates are set as to food, air, cleanliness, clothing, sleep, temperature, exercise, and amusement. Here, for example, are the questions for 1862 :—

1. Describe the circulation or course of the blood through the body, beginning at the lungs.
2. What purposes does the blood serve in the body?
3. Describe the first or temporary set of teeth, mentioning their number and the date and order of their appearance in the two jaws.
4. What is the result of breathing carbonic acid gas?
5. Where are persons sometimes liable to breath carbonic acid gas?
6. What do we mean when we say that a disease is infectious?
7. Give five examples of infectious diseases.
8. When bowel complaint or cholera prevails, what precautions should you take in respect to food and drink?

We are informed by Dr. Fleming that the answering has on the whole been very satisfactory; and there cannot be a doubt that a very material impulse has thus been given to a most important, but most neglected, study on the part both of the pupils and their teachers. I strongly recommend the nature and working of this prize scheme to the friends of education in other towns.

THE MEDICAL LIBRARY.

The Medical Library forms a part of the General Library of Birmingham, in Union-street. The rooms devoted to the Medical department are convenient, but in sad want of repair. The Medical library contains a large collection of old and classical works, is wanting in many important new works, and to be made really useful requires apparently to be remodelled and enriched. Dr. Scurrah is librarian.

MEDICAL SOCIETIES.

There are three Medical Societies in Birmingham—the Midland Medical, the Birmingham and Midland Counties Branch of the British Medical Association, and the Medical Provident Society.

The Midland Medical Society has been in existence fourteen years. It holds regular meetings for the discussion of scientific subjects and the reading of papers. The members meet in the rooms of the Medical Library. Dr. Nelson is President.

The Birmingham and Midland Counties Branch of the British Medical Association consists of 112 members. H. D. Carden, Esq., of Worcester, is President for the present year.

The Medical Provident Society is one of the most useful organisations in the kingdom. It has been established sixty-three years, and in that period has administered nearly £1000. Payments are made to the widows and orphans of Medical men, and sometimes to Practitioners themselves who have become unable to continue their Professional work during disease. The grants are made half-yearly, and the finances are sound.

CLUB PRACTICE.

Club practice is extensively carried out in Birmingham. The benefit clubs pay their Medical officers from 2s. to 3s. 6d. per head per annum. Of late there have sprung up what are called Provident Clubs — not Provident Dispensaries, but Provident *Clubs*. They are managed in a novel way, and are compounded for, if I may so express myself, by the Doctor and the druggist. Mr. A., a druggist, opens a provident club. He knows the Medical men who will work with him, and he starts with their tickets, the sale of which he makes known in his connexion. The sick man comes to the druggist's shop and asks for a doctor. Mr. A. tells the sick man his list of doctors. Sick man chooses thereupon the doctor of his heart; call him Dr. B. Mr. A., having the name of the particular object of the sick man's choice, takes out one of Dr. B.'s tickets and gives it to the sick man on receipt of 3s. 6d. lawful coin. This ticket suffices to hand over the patient to the Medical skill of Dr. B., who is bound to continue his attendance for three weeks, Mr. A., the druggist, being on his part obliged to find the medicines that may be required for the same period. The returns for this form of practice are divided according to an understanding between Mr. A. and Dr. B. I was informed that forty-five Medical men are connected with these Medical clubs, and that they (the clubs) are popular amongst those classes of the poor who would rather pay within their means than seek advice on the gratuitous system.

THE MEDICAL SCHOOLS.

There are two Medical schools at present in Birmingham, one very effectually serving to spoil the other. For a single Medical college Birmingham affords every facility in the way of practice to be learned and professors to be instructors.

Unfortunately, the infatuation which has made its way in London, the presumption that every Hospital must have a school, has reached Birmingham; and so, because there are two Hospitals, there must be two Schools. The result naturally is, that neither school flourishes as it should, and the effort to sustain the two, instead of being a source of pride to the Midland counties and the iron town, is a cause of chronic irritation and almost of discredit.

"Ehu! quò discordia cives perduxit miseros."

The Sydenham College.

The Sydenham is a neat building, close by the General Hospital, in Summer-lane. The rooms are all small, but convenient, and the museum is unusually rich in rare pathological specimens, the which I regret I have not space to describe.

The Queen's College.

The Queen's College is a handsome building of the Gothic style, situated in Paradise-street. It was founded by Mr. Sands Cox now thirty-six years ago. There are in the College departments of Medicine, Law, Theology, Arts, and Engineering; and students may either be resident or non-resident, as they shall choose. The College was incorporated by Royal Charter on July 17 in the seventh year of the present reign. I was very much grieved to find, on passing through the College in July last, that since a period of eighteen years when I had visited it, it had lost much internally of its good looks, and that, in fact, it had assumed the air of decay. There is a very fine Medical museum, which, without any jest being intended, literally wants in spirit; and excellent lecture-rooms, which would be more commanding if their furniture were less worn. I learned also that the students were on the decline, and that there had been positively some talk about closing this institution. *Ehu! quò discordia.* Certain it is that the life of the place seems to have departed, and therewith its beauty and almost its fame.

It is the saddest thought that can be felt, the thought that follows the facts thus presented to the eye. Is there no voice in Birmingham strong enough, no power active enough, to save this excellent foundation, to which every Birmingham scholar ought to be able to point with satisfaction, and say, "There is the renowned seat of learning of these Midland Counties—the academic palace of this hard-working men's district, whence come forth our scholars to illumine and astonish the world?" I put this question as a stranger, but also as a friend. Why the college has not maintained its reputation, particularly as a Medical school, is, I think, clear. It has aimed to stand by the side of the old English Universities, and in this aim has not conformed to the liberal and

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progressive spirit with which Birmingham is saturated. Again, in its intention it has not followed absolutely those rules on which the old universities stand. Its professors, one and all, have not been purely professors, devoted to no other pursuit than the art of teaching. As a Medical school, instead of holding itself resolutely free from any Hospital bias, it has nominally, perhaps virtually, become the school of one particular Hospital. Lastly, owing to the fact that in its Medical part it is not entirely free, it has positively sustained a rival school, which has always held it at a level, and now threatens to hold and keep it prostrate, if it do nothing more.

For the present lamentable condition of things there is but one remedy; that remedy is to dissever, boldly and effectually, Queen's College from Queen's College Hospital, and to let Queen's College stand as the one great school of theoretical and classical Medicine for Birmingham, independently of any Hospital tie whatever. Then, if students may feel that at Birmingham there is a College where the highest class Medical science is taught, and that there they may go for instruction, with their own selection of Hospital at their disposal, the Medical school of the Midland Counties will soon be in the ascendant, and will be able to pay Professors so adequately that these shall feel the lecture hall their only platform for daily work.

One other reform would complete the change, and that is to throw overboard the old monkish system of residence, with its eternal round of college times, hours, supervisions, and such like pretended enforcement of what is called "collegiate morality." Birmingham is not and never can be the analogue of either Oxford or Cambridge. It partakes of the Scottish type in its simplicity of organisation and freedom of action, and the College that would live in it and flourish in it must live with it. Imitation cloisters and cells, with stern discipline, while they are cheats the world over, are offensive in a free town, reborn in an age of protest against exclusive privileges, and standing in the van of progress by virtue of its keen appreciation of the sentiments and demands of the day.

I cannot bring to a close this Medical History of Birmingham without expressing the pleasure I feel in recalling my visit to that town. So much good feeling, so much of desire to place every fact in my possession, was manifested on all hands, that the labour was transformed into a real pleasure, for participation in which I cannot be too grateful. In conclusion, I have the satisfaction of knowing that in expressing critical opinions on certain subjects of current interest, and in attacking views which from local association are dearly cherished, I have elicited no anger, but have been accredited fully for the intent with which I set forth—to write without bias, and to describe faithfully all that I should see for praise or for blame.

Royal College of Surgeons.—The annual list of the Fellows, Members, Licentiates in Midwifery, and persons who have received the certificate of qualification in Dental Surgery of the College, has just been published, from which it appears that the total number of Fellows is 1296, 300 of which number have obtained the honour by examination, and 996 are honorary and elective members. The Licentiates in Midwifery number 926. There appears a great increase over last year in the number of Dentists, who are now 280 strong. The financial report is interesting, inasmuch as the receipts are £1396 13s. 8d. more than they were in the preceding year, and the disbursements only £425 16s. 2d. more than they were in the same period. The total receipts in the year amounted to £13,806 14s. 8d., arising principally from the primary and pass examinations for diploma of membership, which produced £10,202; the Dental certificate, £924; rent of the chambers adjoining the College, £702 15s. 6d.; elections to the Fellowship, £157; the Midwifery licence, £138 12s.; examinations for the Fellowship, £220. The dividends on investments in Government securities produced only £1130 16s. 2d. The disbursements amounted to £12,844 13s. 3d., exclusive of £1792 10s. investment in Government securities. The sum of £7998 17s. 1d. is put down as paid to council, examiners, diploma stamps, list of members, coal, salaries, wages, law expenses, etc. The museum department, including catalogues, specimens, spirit, bottles, salaries, wages, etc., £2264 13s. 8d. The library department is very moderate, only taking £601 18s. for the purchase and binding of books, salaries, etc. Miscellaneous, including taxes, insurance, pensions, etc., £1677 9s. 10d.

OPENING OF THE LONDON MEDICAL SCHOOLS.

MIDDLESEX HOSPITAL.

The Introductory Address was delivered by Dr. Greenhow. He said that the occasion which had brought together an audience comprising so many different classes of men—old and young, professional and non-professional, veteran and recruit—could scarcely be considered other than an important and interesting one. It was no less than the inauguration of a new year of labour and study—a new year which was of vital importance, not for itself only, nor for what might be done or left undone in it, but for the influence which the habits formed or encouraged during its lapse could not fail to have on their future lives. The object which had brought them together seemed to him to dictate alike the section of his hearers which he should especially address, and also the subject on which he should address them. That object being the inauguration of a new year of labour and study, he should specially adapt his address to the particular class of his hearers most deeply concerned in those labours and studies—viz., the young men who already were, or who were about to become, students of the Middlesex Medical College. He would remind these gentlemen that this day was the commencement of a new era to them all; it was the landmark of their past progress, the starting-point of their future course; and a few practical counsels that might help to guide them on their course and to assist their progress were what he proposed to offer them during the remainder of the time at his disposal. With this purpose he proposed to consider—1. The object with which they had entered themselves as students of the College. 2. The studies that would be necessary to secure this object. 3. The manner in which they could pursue these studies to the best advantage. 4, and lastly. The spirit and aims with which they should pursue the calling for which these studies were to qualify them. With regard to the first point, there could be no question that their object in coming there was to qualify themselves for the practice of Medicine; and he trusted that the real object with every one of them was to render themselves useful and competent members of the Profession, and that none of them had in view either the partial object of studying merely some one branch of Medical knowledge, or the degrading object, as he could not but consider it, of merely securing their diplomas. He would wish to impress on them that no excellence was to be attained in any one specialty, unless a broad and solid foundation of general Medical knowledge were first laid during the period of their residence there as students. But far more strongly he must denounce the indifference to all branches of Medical knowledge alike which led some men to be satisfied with barely passing the examinations of the several boards, whose standard of proficiency was necessarily a low one; for deliberately to place one's self on a low level and aim at a low standard, was, in his opinion, degrading to any man's self-respect. He recommended every student, on the contrary, to aim high, to aim at the worthy object of qualifying himself thoroughly for the responsible duties of a noble Profession. He now came to the second point—viz., the studies necessary to secure this object. In the first place, they would have to study anatomy and physiology, which teach the natural structure and healthy functions of the various organs and tissues of the body; in the second place, morbid anatomy and pathology, which teach the various deviations from natural structure and healthy function that constitute disease; and in the third place, Materia Medica and therapeutics, which give an account of the various remedies in use for the cure of disease, and specify their doses or modes of employment. In connexion with these three groups of sciences, because closely allied to them all, they would have to study chemistry. There remained the ancillary sciences of botany and comparative anatomy. Botany, though far less essential than chemistry, was the one branch of natural science which, perhaps, more than any other cultivated habits of minute and accurate observation; and comparative anatomy required a share of attention, because it was impossible thoroughly to understand human physiology without frequent reference to the structure and functions of the several classes of the lower animals. Thus he had completed the list of their scientific studies, and they must never forget, in the wide and interesting fields of knowledge which these would open to them, that, as intending

Medical Practitioners, they must study every science with reference to its applicability to the purposes of Medicine as an art. Here and elsewhere he should be understood to speak of Medicine in its wide and legitimate sense as including every branch of the healing art. It was true that they might master all these sciences perfectly, and even their practical applications to the purposes of Medicine, without becoming competent Medical Practitioners, for Medicine was an art no less than painting or music, and required long practice to attain even moderate proficiency. But in one respect Medicine differed from every other art—viz., in that it was exercised upon living fellow-creatures, to whom bungling might prove fatal. The tyro in painting or music might spoil the materials or instruments of his art, and yet do no worse harm than that of offending the taste or the ears of his neighbours; but the tyro in Medicine might destroy precious lives in his crude experiments upon human subjects, and must, therefore, be content to learn his art in the first instance by observing the practice of others, and only begin to practise it himself when he could do so with safety to his patients. Dr. Greenhow said that, in his opinion, therefore, from the day that they entered the lecture-room as students, they should begin also to observe disease and its treatment in the Hospital; and although during the earlier period of their attendance the larger portion of their time should be devoted to the study of science, and during the latter period, on the contrary, to the study of practice, yet from first to last these studies should go on together, and they should neglect neither, for neither would bear to be neglected. Before concluding the consideration of their necessary studies he must say a few words on one remaining branch of their training there, which was a very real, though not exactly a nominal study—he meant the education of their physical faculties. They must bear in mind that it was not merely by being shown the relation between certain visible signs and certain internal diseases, by being made to listen to the sounds in the chest which indicate certain forms of pulmonary or cardiac disease, or being told to feel the crepitus of a fracture, or the heaving expansive impulse of an aneurism, that they could educate their senses. Instruction, it was true, came by precept, but education could come only by use. Teachers might, indeed, direct their attention to these things, but it was only by constant and patient practice that students could educate their physical faculties themselves so as to be able to use them skilfully in the examination and diagnosis of disease. With reference to the third point, viz., the manner in which they could pursue these studies to the best advantage, it would, perhaps, be more in accordance with custom if he were to limit himself to general advice. But he had found that general counsels, however good, did not practically save Medical students, especially first-year students, from wasting precious opportunities, for want of knowing what those opportunities were, or understanding their true value while the time for profiting by them remained; and he had found also that some students, even up to the conclusion of their attendance, lost the benefit to be derived from prosecuting their studies on a regular and connected plan, from sheer inability at first to form such a plan for themselves, and from drifting in consequence, during their earlier sessions, into indolent and desultory habits. He should, therefore, endeavour to lay before them the details of a scheme for the systematic employment of their time, by a general adherence to which—subject to necessary individual modifications—they would, he thought, be enabled to pursue their studies to the best advantage. Dr. Greenhow then proceeded to explain the distribution of hours which he proposed to first-year students, in order to combine regular attendance on the prescribed courses of lectures on anatomy, physiology, and chemistry, with a diligent study of practical anatomy by means of dissection, and a share of attention to the study of disease and its treatment, chiefly in the Medical and Surgical out-patient rooms of the Hospital. He was sure that a man of average diligence and ability might profitably attend all the prescribed lectures, and keep up with them in his reading without being over-burdened with work. He strongly advised the devotion of a larger portion of time to the supremely important study of practical anatomy than was now usually given to it by Medical students. He recommended that during their first winter session their study of disease and its treatment should be carried on chiefly in the out-patient rooms, where the majority of cases closely resembled those they would be called on to treat as young Practitioners, and also admitted of being more thoroughly examined by the student, without detriment to the patient, than was possible with the cases of more advanced and acute illness generally found in the wards. He further advised that they should, as a rule, devote at least three hours every evening, except Saturdays and of course Sundays, to reading at home strictly in connection with the lectures and work of the day. He afterwards sketched out more briefly plans for the employment of the students' time during subsequent sessions, and concluded by observiug that he had now gone through their three years' course of study, and that, as they had seen, each year, nay, each day, had its proper work, which could not be postponed to the next. There was no time to spare, but there was sufficient time for everything, if everything were done at the right time; and it was certain that nothing less than everything there prescribed would suffice to qualify them for the arduous duties of their profession. He had now arrived at the last point for consideration—viz., the spirit and aims with which they should pursue the calling for which these studies were to qualify them, but time forbade more than a few words on this important subject. In whatever line of life a man's lot might be cast, his duties were to himself, to his neighbours, and to God, and should, therefore, be performed in the spirit of self-respect, of charity towards his fellow-men, and of faith and obedience towards his Maker. At the same time there were trials and difficulties peculiar to the Medical Profession, and, unless they were met with the preparation of a right spirit, they might easily lead its members astray from the right aims of life. It had been truly said that most men regard themselves too much and respect themselves too little, and in no profession was there so much danger as in theirs, that too exclusive regard to self and selfish interests would lead them to derogations from the spirit of self-respect, which must lower them in their own eyes and in those of their fellows. The Medical man should also especially cultivate the spirit of charity towards his neighbours—charity, not only in the restricted sense of benevolent aid to the sick and suffering, which, it must be remembered, was in accordance with their professional instincts, but charity also in its wider sense of candour and goodwill towards their professional brethren, which was a rarer and a higher virtue, and one which they should cultivate for the sake of the immunity it would secure them from the painful and mistaken jealousies which equally embittered failure and poisoned success. In their intercourse with patients, and sometimes even, he was afraid, with members of their own profession, they would be placed in trying and harrassing circumstances, in which they would need all the support to be derived from the spirit of faith and obedience towards God. In such trials they must preserve their equanimity and do their own duty fearlessly and faithfully, never doubting that the result would be commensurate with their deserts. They might almost infer the aims they should pursue from what he had said of the spirit in which they should pursue them. The aim of professional success was a necessary and legitimate aim with all of them, and one to which he would wish to see them earnestly aspire; but still he must remind them that it should never be their highest or their sole aim. They should cultivate to the utmost, and employ with their utmost energies, all the faculties and skill they might possess, with the high and conscious aims of diminishing the sum of human suffering and increasing the sum of human enjoyment; and of thereby fulfilling God's purpose in the station of life to which He had been pleased to call them. Of Medical knowledge, above all other knowledge, it might surely be said that it should be, "not a shop for profit or sale, but a rich store-house for the glory of the Creator and the relief of man's estate."

ROYAL FREE HOSPITAL.

The Introductory Address was delivered by Frederick J. Gant, F.R.C.S., Surgeon and Pathological Anatomist to the Hospital. Mr. Gant said:—Gentlemen, if I were asked what is the most Professionally important study in which the Medical Student and Practitioner can be engaged, I should answer the question by appealing to experience, rather than by any abstract consideration of preconceived and presumed relations of different branches of science to the art of Medicine and Surgery. Thus, I should not select anatomy, for its guidance is limited, and of far less value than advocated in the schools. Primed with descriptive anatomical knowledge, regional and systemic, the student commences practice. He then begins to feel the faithlessness of much of that knowledge he had been at such pains to acquire—by dissecting so minutely, by inspecting anatomical plates so diligently, by

reading and reflection to combine into a mental realisation of regional anatomy, ever capable, as he thought, of being applied. The smaller arteries and their anastomoses around joints; the almost terminal filaments of nerves; the artificial distinctions of ligaments which naturally form but one around this or that joint; the no less complicated diagramatic views of synovial membranes, with their "processes" between bones and tendons; even the minute descriptions given of the origins and insertions of muscles; and, lastly, the artificial conception of bones—as dead bones, scraped and dried, with their eminences and depressions exaggerated into an apparently practical importance which they have not in the living subject, prepared bones as seen only in the dissecting room, the anatomical theatre, or museum, and never afterwards met with at the bedside or in operations;—all this, which formed a mental photograph of anatomy highly prized by the diligent student, now begins to fade away, as it fails to regulate the successful treatment of injuries and diseases, or to guide the Practitioner's hand in his hour of peril. Accordingly, year after year he mistrusts such knowledge, then ignores and necessarily forgets it, until his view of descriptive anatomy subsides into that of the prominent aspects of structure with the more obvious relations of parts, and as presented in the living body. In fact, anatomy is at length wrought by experience into surgical dimensions and shape, portable and comfortable to carry—a balance not a burden—a clear and permanent standard of comparison, not an obscure and fleeting vision. But observe, this restriction does not extend to organic and histological, or textural anatomy, the minute knowledge of both of which is all important to the earliest and most exact diagnosis in very many cases.

Does, however, its companion, physiology, for the most part, prove more serviceable? Like anatomy, over-taught in schools of Medicine, it is indeed hard to realise; but it is also far more an artificial creation, far less itself a reality. Physiology, *human*, so called, yet chiefly the results of experiments on the lower animals, and so far inferential only, is proportionately unqualified to illumine the pathway of Medicine and Surgery. Experimental observations on the force of the circulation in large dogs, as shown by the hæmadynamometer, or on the functions of different portions of the brain and spinal cord in rabbits and frogs, are not likely to do much for the Practitioner at the bedside of a paralysed man or woman, and not calculated to regulate the treatment of aneurism by compression. Better, far better, to candidly acknowledge the truth, that much of human physiology is an undiscovered country, and perhaps, under the circumstances of investigation, for ever undiscoverable, than that the student in Medicine should be otherwise taught, and encouraged at the outset of his career to follow an ignis fatuus which charms only to mislead. In the course of practice at the bedside, he discovers the failure of this false physiology, its specious promises and barren performances. Meanwhile, with the fallacy on his lips, the deception is propagated, and many younger minds may be, doubtless are, thus led astray from a more fertile land of promise near at hand, when he, having long since awoke from the dream of his student-days, has happily found by experience that the light which was in him was darkness.

By mature clinical experience this delusion, thus early inculcated, may be quite dispelled, and the Practitioner's physiology settles down to a clinical view of the functions of the different parts of the body and their mutual relations—a far more sound and therefore more enduring knowledge of the laws of human life than the deceptive depths of bygone years. This practical physiology—ever ready, ever guiding—conjoined with practical anatomy, together represents man in health, structurally and functionally, in relation to the purposes of Medicine and Surgery; and by constant reference to this, as his standard of comparison, the Practitioner habitually detects and estimates the beginnings of disease, or the disorganisation effected by injury. It is the foundation of rational Medicine, including Surgery.

He is now standing at the bedside. Disowning, therefore, the practical bearing of certain other branches of science, as botany and comparative anatomy, which are obviously of yet more remote consequence than human anatomy and physiology,—to approach nearer the character of the model Practitioner, should I answer the question proposed by designating pathology, the pathology of man, the most important study in which he can be engaged?

Now, this pathology is a science of wide extent and significance. It is the knowledge of disease (including injuries); and this represents—firstly, the alterations, structural, physical, and chemical, which, singly or collectively, the different solids and fluids of the body may respectively undergo, with the situation (if localised) and extent of such changes; secondly, the external causes of these alterations, and their own operation as (internal) causes of other alterations, contiguous to or remote from the original disease; thirdly, the course and tendency of the morbid condition, with, possibly, its subsequent complications, to or towards a favourable or an unfavourable issue. All this, observe, not to mention the analagous consideration of mental diseases, with their grand practical distinctions of irresponsible and responsible actions. I here restrict human pathology to its bodily significance.

The first and part of the second of these aspects of disease are represented by pathological anatomy; the remainder, and the third aspect, exclusively, by pathology proper.

Taking them in order, which has the greater or more immediate practical importance? Assuredly not pathological anatomy *per se*, which, as mere morbid anatomy, is unmeaning, because inoperative. The operation, and the continued operation—*i.e.*, the natural course and tendency of disease and injury—is that kind of pathological knowledge which should immediately guide, regulate, and determine our therapeutic interference and assistance—Medical, operative, or both. Pathology proper is therefore our polar star in the practice of Medicine and Surgery.

To avail ourselves of the guidance of this knowledge, obviously it must become foreknowledge—it must become prognostic. Even the consideration of injuries and diseases, as objects of preliminary clinical inquiry, is unmeaning, unless it point to the operation, and especially to the course and tendency, of the lesions themselves.

[Having shown at some length the impossibility, in any case, of deducing this requisite knowledge from any other knowledge we may possess of anatomy or physiology, or from pathological anatomy, and that it can only be gained by independent pathological experience—*i.e.*, by special clinical observation—Mr. Gant proceeded to notice the ground-plan of an entirely new classification of injuries and diseases in accordance therewith.]

Unlike the pathologico-anatomical and partly anatomical classification now prevailing in works entitled Practice of Surgery, and Practical Surgery, etc., in these Lectures the various morbid conditions to which the body is subject will be associated and arranged, by virtue of their pathological affinities, as declared by the natural courses and tendencies of the lesions themselves, so far as our knowledge in this direction at present extends.

This aspect of pathology at once suggests the guiding and regulating principle of all therapeutics, both Medical and operative; and to its three indications I would now specially commend the abiding consideration of the Profession.

We thus discover the earliest occasion for interference with the order of Nature, if any be necessary, in some cases; the kind, and the least amount of such assistance as may be needed from time to time to conduct the case to recovery. But observe, so far as the careers of diseases and injuries are naturally to, or towards recovery, such course and tendency implies the (existence) operation and resources of a self-restorative power, in-born and inherent in the (human) body. Consequently, whenever our interposition is needed, and whatever our aid, it can only be supplemental—co-operation, not coercion, by our remedial measures and Surgical proceedings. Hence, also, the three-fold principle of therapeutics must turn upon the degree of operation, and the self-sufficiency, or otherwise, of the resources of this power; the earliest occasion for our interference being suggested, and the least amount, no less than the kind, of our assistance guided and regulated by a just appreciation of its curative efficacy.

Clinical observation, having gone thus far, shows further that the curative power of Nature is manifested more efficaciously at the commencement of injuries and diseases than at any subsequent period of their career, during which, indeed, complications arise, in most cases, denoting its proportionate failure;—complications by constitutional disturbances supervening, by direct extension of the disease to adjoining textures and organs, and by disorganising results in the part originally affected;—complications by the supervention of structural alterations in parts remote from the primary disease. Take, for example, scrofulous disease of the knee-joint, limited, in the first instance, to carious softening of the cancellated portion of the articular ends of bone; subsequently extending to disintegration of the articular cartilages, with the escape of

pus into the synovial capsule, and eventually disintegration and destruction of the cancellated bone itself. In the course of this disease the supervention of hectic fever, and, perchance, the formation of secondary abscesses in many joints, or other parts remote from the primary disease of the knee-joint.

Guided, then, by the teaching of the earliest clinical observation as to the career of diseases, it follows that the earliest (and most exact) prognosis, or foreknowledge thereof, is absolutely necessary to secure the most advantageous co-operation with the restorative power—*i.e.*, before the supervention of any unfavourable condition, which, announcing that its curative efficacy is failing, would then probably frustrate the aid of remedial measures, whether Medical, operative, or both, as the case may be. Should any complication have already arisen, or should any be present at the very commencement of a case, as in that of a compound comminuted fracture of the tibia and fibula, accompanied probably with considerable laceration of the muscles, and possibly of either tibial artery, by similar prognosis or foreknowledge thereof we gain the opportunity for having recourse to adequate remedial measures before the supervention of worse complications.

In the more rare cases, where the restorative power is itself alone sufficient from first to last, such foreknowledge of this self-sufficiency is still necessary in order to withhold any interference which would, or might, divert the natural course of the morbid condition to recovery. We have at least an approach to non-interference suggested by the natural or normal course and tendency of certain fevers—*e.g.*, measles, scarlatina, and other eruptive fevers, all of which are apparently so many manifestations of the effort of nature to eliminate various blood poisons. In these and similar cases the purpose of rational Medicine is fulfilled by interference only when some "complication" arises by which remedial assistance then becomes requisite "to avert the tendency to death."

To sum up: thus far, therapeutics, and in some few cases total non-interference with the order of nature, is suggested by the earliest and most exact prognosis—itself acquired by similar clinical observation—respecting the natural career of diseases and injuries individually to or towards recovery. By virtue of this pathological knowledge of any morbid condition, whenever its course is foreknown to issue in recovery, in such case any interference with the order of nature is accordingly withheld. In all other cases assistance is solicited, the earliest occasion being determined by the first requirement on behalf of the restorative power, to remove any unfavourable condition, if present; the favourable course that the disease or injury will then take showing the kind of assistance required, while its tendency towards recovery measures the least amount necessary, and so on, from time to time, to conduct the case to a happy issue. Such, then, are the indications of treatment peculiar to the fundamental principle of therapeutics, drawn from pathology. The varied expression of these indications will be found to constitute rules of practice, of analogous character, in every branch of Medicine and Surgery.

Hence an original system of therapeutics, Medical and operative—a system which presents a continued illustration of one and the same fundamental principle—the guidance and regulation of our treatment always by considering the natural course and tendency of diseases and injuries. This being that pathological knowledge which is most directly important to us as Practitioners, and which to be available must become prognostic—the more early and exact the more competent for the purposes of our treatment—the application of such foreknowledge will form the most conspicuous feature in these lectures.

Bearing in mind the terms of that cardinal principle of therapeutics which I have introduced to you, I would now invite your attention to what is denominated "conservative" Surgery. Whence this distinctive title, and what its signification hitherto?

Both these questions are clearly and definitely answered by Mr. Fergusson. In his lectures this year before the Royal College of Surgeons, he claims, and I believe justly, to have first introduced the term "conservative" into Surgical nomenclature. He did so in a paper "On Resection of Bone, with Cases of Resection of the Radius, of the Ulna, and of the Elbow-joint," which was published in January, 1852. But, at the same time, Mr. Fergusson distinctly disavowed any originality in relation to the principle of practice he thus designated; that, in fact, "conservative Surgery has been carried to a high pitch in modern times," as is there instanced more particularly by the practice of Sir B. Brodie in 1827—just twenty-five years prior to Mr. Fergusson's communication. So that, respecting the object of the present paper (1852), "it is," he adds, "not so much to offer anything new to the Profession, as to draw attention to subjects which are in many respects familiar, but not justly appreciated by the mass of those who practise Surgery, even in the present day."

Having made this due acknowledgement of the prevalent practice of conservative Surgery, its guiding principle is thus defined (in small capitals):—"The preservation of the greatest portion of the body at the smallest possible sacrifice;" which is then illustrated by the operation of "excision" of (certain) bones and of a joint as contrasted with that of "amputation." Up to the present year Mr. Fergusson still adheres to this definition. He re-expressed it in his lectures referred to (No. 2); and it is still the prevalent view of conservative Surgery. Preservative of the integrity of the body, by the removal of only the diseased (or injured?) portion, as contrasted with the removal of, possibly far more, by amputation. The same principle may be extended, and is applied in those lectures, to preservation of the skin over a tumour in its removal rather than the excision of one with the other. Here excision itself is limited by the guidance of conservatism in the practice of Surgery. And, I may add, all operations of removal, whether by excision, amputation, or any other mode, thus become more restricted in extent, approaching, therefore, in character the other great class of operations and manipulations—the reparative; those designed to bring about the repair of any part whose mechanism has been damaged by injury or disease, or is congenitally defective, the aim of both these primary classes of Surgical operations being preservative of the integrity of the body.

But, gentlemen, such is the purpose and end in view of all true Surgery, whether designated conservative or simply Surgery. There is, then, nothing new or peculiar about "conservative" Surgery, in its present sense—preservative. A new term, without a new idea of any kind attached thereto, it is a barren fallacy, or calculated only to mislead by implying a new kind of Surgery, without really directing our practice from any original point of view. Then, again, conservative Surgery, as hitherto understood, has reference only to operations. Advancing a step further in this direction, to obviate the necessity for any operative assistance—*e.g.*, the preservation of a joint without excision—is "conservative" Surgery equivalent to "the Medical treatment of Surgical disease?"—another more recent definition which I have somewhere read.

This Medical aspect of Surgery, as a principle—if anything so ambiguous be worthy of such designation—goes no further, in effect, than that advanced on the part of operative Surgery. It equally relapses into the obvious purposes of therapeutics—the preservation of the integrity of the body; if possible, by Medicinal measures, rather than by any operation, however little mutilation one may imply as compared with another operation. But while we admit the necessity and admire the wisdom of reforming the body politic to yet higher states of efficiency, the human body—endowed with the power of growth, development, and restoration—is self-productive and self-protective; wherefore we need not interfere with its organisation otherwise than so far only as our assistance is solicited by the shortcomings of its own operations and the failure of its own resources. You will not fail to mark how the subjection and adaptation of all therapeutics—in time, kind, and degree—to the operation and requirements of this self-restorative power (of nature) confer a truly conservative character on the practice alike of Medicine and Surgery; and by ever referring us, as Medical Practitioners of whatever denomination, to clinical observation of the natural courses and tendencies of injuries and diseases, rule our art from the sure and commanding ground of pathology. To this end, diagnosis and etiological knowledge, each of the earliest and most exact character, are obviously subservient; and to more nearly realise this standard in both these preliminary clinical inquiries will be an additional and scarcely less conspicuous feature in these lectures. It will develope the resources of pathological anatomy at the bedside—"clinical pathological anatomy," as I have named this science, thus applied during life.

The whole will constitute one continued application of my work recently published—"The Principles of Surgery: Clinical, Medical, and Operative"—of which it is the fruit: that, the science, this, the art, of Surgery, guided, regulated, and determined by pathology, and as distinguished from

empirical practice. [Having enlarged upon and illustrated this aspect of Surgery at length, Mr. Gant concluded:—] If, gentlemen, this design sound something like a "revolutionary epic," remember that it is so throughout only by an appeal to your own judgment and as gathered from your own experience. In your daily practice, do you find yourselves recurring to much of that knowledge which in your earlier years was lectured into you so dogmatically, which you credited so implicitly, and eagerly spent so much time and labour to acquire and retain? or does not what I have here commended approve itself to your maturer judgment as the more excellent way? This is that pathological Surgery which I have now for some years taught: by precept always, by practice at the bedside and in operations; by the force of earnest exposition and by the persuasion of patient example; by toilsome concentration and conversion of the labours of others; by persevering industry in the pursuit of my views to this end; and by pure devotion to the cause of truth.

WESTMINSTER HOSPITAL.

The Introductory Lecture was delivered by Dr. Basham. Referring to the circumstance that it was twelve years since he gave the Introductory Address of 1852, Dr. Basham remarked that such an interval, insignificant as it was in the history and progress of science, was, in the life of an individual, an integral part of his career, filled possibly with momentous consequences to his social or domestic happiness, or perhaps charged with the elements of professional success or failure. Nevertheless, infinitesimal as such an interval might be in the history of science, the circumstances or discoveries of the time might mark it as an epoch of distinction and celebrity. The student of history would readily recal such periods, when, either from the splendour or magnitude of the discoveries made, or by the successful application of principles to the requirements of every-day life, a characteristic stamp was left on that page, and it remained pre-eminent in the influence it exercised over succeeding generations. He thought it would be an interesting task to glance over the interval between 1852 and 1864, to determine by what scientific feature it had been distinguished. Such a retrospect would afford abundant evidence of the untiring, ever-productive energy of the human mind, and the fertile development of agencies and means tending to the increase of human comfort, wealth, and enjoyment. After describing some of the more prominent discoveries in physical and chemical science, particularly the method of spectrum analysis, and the valuable results already obtained, as an example affording us at last a satisfactory explanation of the efficacy of the Bath waters in gout, by the discovery of the presence of lithium—a metal they were hitherto not known to possess,—and mentioning one or two interesting novelties in physical science brought to light in this interval, Dr. Basham remarked that it was very evident that in every department of science, in every branch of engineering and mechanical skill, the same activity, the same progress, the same untiring, inexhaustible energy was displayed. The full exposition of such a subject was far beyond the limits of a lecture. He alluded to them for the sake of comparison—for the sake of asking whether, in this short interval, the Medical mind had been equally progressive; whether the same activity of thought, the same independent methods of inquiry had prevailed in our pursuits which had so eminently distinguished the collateral sciences. He would endeavour to determine whether there had been a similar progress—whether, even in subordinate degree, Medical and Surgical science had contributed, not to the wealth, but to the amelioration of disease, and, consequently, to the comfort, health, and duration of human life. He thought that those comprehensive schemes applied to the sanitary condition of towns, and particularly of this metropolis, had their origin in Medical suggestion.

But he would turn from this branch of the subject, to attempt an estimate of the state of Professional opinion on several fundamental points, which might afford a key to the state of Medical progress at the present time. The gradual decay of old theories, the development of doctrines in relation to the pathology of inflammation and of disease in general, might be traced to a firmer reliance on fact and observation, and originated or was coeval with the marked change from dogmatic to practical teaching which had for some years characterised our literature and our schools. At the period when he last stood there, opinion in reference to the theory of inflammation was already beginning to change, and the marked alteration in the principles of treatment which was now so general had then only begun to be manifest. To what influence could this salutary change be traced? It arose, he thought, from the development, it might almost be said simultaneously, in many minds of the fruits of more extensive observation. Minute researches with improved instruments had led to a more correct knowledge of the structural elements and functions of the tissues. It was, therefore, to a more enlightened physiology, to a clearer appreciation of the circumstances which regulated development, nutrition, and secretion, that the great change in certain fundamental doctrines in pathology might be traced. Paying a just tribute to the labours and opinions of the great John Hunter—admitting that his facts were indisputable, for he was a faithful recorder of what he saw, we had nevertheless been compelled to differ from the conclusions he had formed regarding the nature and essence of inflammatory action. The Hunterian doctrine was, that inflammation represented an increased activity of the power which a part naturally possessed. This idea of an increased activity of the vital energies of an inflamed part was derived from what was supposed to be the increased activity of the capillaries, as seen in the augmented redness and heat. It was on this point that the modern pathologist joined issue with the followers of the great master of English Surgery. Improved instruments of observation, and their application to the state of the minute vessels, had led to the conviction that the redness, congestion, or hyperæmia, by whatever term expressed, was brought about by want of power—a paralysis of the minute vessels; and that the accumulation and retardation of the blood arose from a passive dilatation, and therefore a diminished power to transmit the blood forward, and a stagnation of the current followed. As at present conceived, the phenomena of inflammation, wherever located, represented defective nutritive conditions; the relation of supply and waste was disturbed. Inflammation was therefore a process of exhaustion, for if it were, as the Hunterian school believed, a manifestation of increased activity of the power which a part naturally possessed, then nutrition, nerve supply, vigour of circulation, activity of secretion, exaltation of function, should severally be augmented; but, on the contrary, they were observed, either separately or collectively, to be depraved, defective, or deranged. Reference was then made to the researches of Professor Virchow and the influence which the cellular pathology was exercising over the pathology of our time.

The principles of treatment—the therapeutics of the day—had necessarily followed the more rational views of the nature of diseased action, and the great revolution which the last few years had witnessed in the management and treatment of inflammatory disorders and fevers was traced to a similar cause. Improved methods of research, pursued independent of preconceived opinions, and close logical conclusions from fact and observation, had led to this wholesome revolution; and he was therefore led to the conviction that a similar activity of thought, the same restless spirit of inquiry, the same devotion to observation which had so eminently distinguished the collateral sciences, was also found active, energetic, and productive in Medicine and Surgery. To prove this proposition more clearly, it would be necessary to call in evidence the works and labours of those who, during the last ten or twelve years, had won some victory over error, or had contributed to the progress of Medical and Surgical science. There was not an Hospital or Medical School in this metropolis—not omitting Edinburgh or Dublin—from among the Physicians, Surgeons, and Lecturers of which, one or more names could not be selected who had contributed to this progress. At the same time he was not unmindful of the labours of others unconnected with Medical teaching, who had also successfully cultivated observation, and lent their aid to the general progress.

There were two works—the one Surgical, the other Medical—which he thought might be fairly selected as criteria of the tendency to original observation, and entire freedom from all speculation or theory, redolent with fact and instruction—fair examples of the present aspect of Medical and Surgical science. The first was Mr. Hilton's "Influence of Mechanical and Physiological Rest in the Treatment of some Surgical Diseases"—a work full of interest and instruction. The deductions on the therapeutical influence of rest, drawn as they were from fact and example, entirely free from theory or dogma, justified him in placing the author among the most representative Surgeons of our time. Dr. Anstie's work on "Stimulants and Narcotics" was equally characteristic of

originality of observation and clear logical inference from facts alone. Such a work was destined to gain further victory over error, and would aid in removing the vague and unsatisfactory doctrines hitherto prevalent, and afford a more rational explanation of the *modus operandi* of important Medical and other agencies. The limits of a lecture would not permit him to recount the labours of all who had recently ministered to the advance of Medical science, the influence of whose works would be appreciated in times yet to come, and be recognised in the improved treatment of disease.

In conclusion, he desired to address a few words to those who were studying, or were about to study Medicine and Surgery in that Hospital. He had that evening particularly dwelt on the marked change which the last twelve years had witnessed in theoretical Medicine. He had mentioned the agencies by which that had been accomplished, and he had cited the writings and labours of those who had ministered to its progress. They who had accomplished this, like those before him, were once students; they had used their time profitably and practically; they observed, they reflected, they inquired for themselves. The youngest might do the same; and they, in their generation, by cultivating similar habits, might become instrumental in still further securing and strengthening the foundation on which Medicine and Surgery alone rested—fact and observation.

Dr. Basham, in conclusion, observed upon the importance and influence of the preliminary education of the student. The elements of a good classical education were paramount and indispensable; but he considered an elementary knowledge of physical science equally so. The great Bacon had, with characteristic force, said that if Medicine be destitute and forsaken of natural philosophy, it is not much better than an empirical practice. Some knowledge, therefore, of the powers and properties of matter such as was obtained by an elementary knowledge of hydrostatics, pneumatics, mechanical forces, theory of heat, electricity, and galvanism, was most essential. Thus prepared, the student commenced his studies in anatomy and physiology with the greater advantage, and his progress would be proportioned to the extent of this groundwork.

Glancing hastily through the several branches of Professional study which he was required to follow, the student was urged to habits of industry and observation—habits which once formed would never forsake him, and be most valuable to him when the time arrived for the exercise of his Professional acquirements; and though from the demands on his time he might not be able to give publicity to the results of his experience, he would be scarcely less instrumental than those who had been named to-night who had contributed to the advancement of Medical science, and thus fulfilled their useful mission—the mitigation and relief of the diseases and sufferings of the generation in which they lived.

At the conclusion of the lecture, the visitors and students assembled in the Board-room, where many articles of scientific interest were exhibited. Refreshments were served in the corridor.

GENERAL CORRESPONDENCE.

DR. LEE ON THE STRUCTURE AND TREATMENT OF UTERINE POLYPI.

LETTER FROM DR. ROBERT LEE.

[To the Editor of the Medical Times and Gazette.]

SIR,—I shall feel indebted if you will insert in your journal the following statement made by me in a paper on "Uterine Polypi," published in the forty-fourth volume of the Medico-Chirurgical *Transactions*:—

"The histories of forty cases of polypus of the uterus are contained in my 'Clinical Reports of Ovarian and Uterine Diseases,' published in 1853. Respecting the results of the treatment adopted in these cases, a recent writer has made the following statement:—

"'That out of twenty cases of removal of fibrous polypus by ligature, recorded by a most strenuous defender of that operation—Dr. R. Lee—nine, or more than one in three, had a fatal result—a mortality more than double that of the operation of lithotomy, as high as that which occurs in placenta prævia, and higher than the mortality from malignant cholera.'"(a)

The truthfulness of this statement will be speedily judged by those who will take the pains to read this communication attentively.

"I have now the honour of presenting to the Royal Medical and Chirurgical Society a history of 105 cases of uterine polypi, reduced into a tabular form, in which the date, name, age, and social condition of the patients are recorded, and the symptoms and treatment and result are given. All the cases of polypus of the uterus which have ever come under my observation, fortunate and unfortunate, are contained in this table. In three of these 105 cases no operation was performed, and the result was not known. In two of the remaining 100 cases the polypi disappeared spontaneously by some process, the nature of which was not ascertained. One of these (No. 94) occurred in St. George's Hospital, and the polypus was not only felt protruding through the os uteri, but seen.

"Of the ninety-eight cases which remained, five died before any attempt had been made to remove the polypi by ligature or by any other means. The first of these (No. 2) occurred in the Middlesex Hospital, and the nature of the disease was not ascertained until the body was examined after death. In the second (No. 4) the patient died in the Fever Hospital, without any operation having been performed. In the third (No. 5) the patient died under the care of Dr. Sims in the St. Marylebone Infirmary from uterine hæmorrhage and the usual symptoms of cancerous disease of the uterus. In the fifth (No. 85) I had resolved to apply a ligature around the root of the polypus; but the patient, who was under the care of Mr. Barnes, of King's-road, Chelsea, died before the operation was attempted. A preparation of the uterus, with the fibrous polypus adhering to the fundus, is now placed upon the table of the Society, with two correct drawings by Mr. Arthur Roberts, the present Obstetric Assistant of St. George's Hospital.

"After deducting these ten cases there remain ninety-three, of which eight died and eighty-five recovered.

"By referring to the condensed history, it will be seen that in the first of these fatal cases (No. 7) the patient in the St. Marylebone Infirmary was moribund, when Mr. Perry, with the sanction of Dr. Sims, applied the ligature around the root of the polypus, which hung externally, and that she died the same evening. The preparation, with a drawing which has been figured in the Medico-Chirurgical *Transactions*, are now placed upon the table of the Society. I did not see the patient during life, and was not present at the post-mortem examination; but, nevertheless, this case is the first which has been adduced by the writer above referred to, to support the conclusion, 'that out of twenty cases of removal of fibrous polypus by ligature recorded by me, nine, or more than one in every three, died.' The polypus is still seen hanging from the uterus, and has been laid open to show its structure, and has not yet been removed, and there is no visible mark on the root of the polypus, of the ligature ever having been applied.

"In the next fatal case the ligature was applied around the root of a large sloughing polypus which was hanging externally.

"In Case 11 Mr. Cæsar Hawkins endeavoured to bring down the tumour, which had only passed through the os uteri partially, with a pair of forceps into the vagina; but not succeeding in the attempt, operated, and the polypus was removed by the ligature. Death took place in this case from peritonitis.

"In Case 16 the patient was under the care of Mr. Tatum, in St. George's Hospital, and she died from peritonitis before the root of the polypus had been divided by the ligature. The preparation is now placed upon the table of the Society. I did not see the patient during life; but this is another of the cases which have been adduced to prove that the mortality in my cases (recorded) of uterine polypi 'have been double that of lithotomy, as high as that which occurs in placenta prævia, and higher than the mortality from malignant cholera.'

"By an examination of this condensed history of 103 cases (105) of uterine polypi, it will be seen that of the last fifty cases which have come under my own care, and in which the operation has been performed by me, not one patient has died."

In a work, entitled "Clinical Memoirs on Diseases of Women," published in 1863, by Dr. Alfred H. M'Clintock, there is the following statement at page 183:—

"Now let us investigate a little further the results of *deligation*. Above are three deaths following ten operations, and these were the only fatalities among the thirty-four cases of polypus reported in the present Memoir. A very high rate of mortality followed the use of the ligature in the cases

(a) "Lectures on the Diseases of Women," by Charles West, M.D., etc., 1856, p. 324.

reported by Dr. R. Lee, for of fifty-nine instances where the ligature was employed, nine of the women died, and two of these deaths occurred before the removal of the tumour was effected. Thus, then, out of sixty-nine cases of deligation were found twelve deaths, or one in five. Dr. Lee gives thirty-five other cases where polypi were removed by torsion or excision, and among these there is no death."

I hope that it will not be necessary for me again to correct these misrepresentations. I am, &c.

4, Savile-row, September 28. ROBERT LEE.

MEDICAL NEWS.

NEW FELLOWS.—The following Members of the Royal College of Surgeons, having been elected Fellows at previous meetings of the Council, were admitted as such on the 13th inst. :—

Benjamin Evans, Brixton, diploma of membership dated November 5, 1841, and William Wayland Kershaw, Kingston-on-Thames, May 26, 1843.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, October 6, 1864 :—

Joseph Clement Bruce Smallman, Willingham, Gainsbro'; Herbert Davies, University College; John Powell, Chichester, Sussex; William Henry Power, St. Bartholomew's Hospital; Edward Dodd, North Stoke, Oxon; Cyril William Bowdler Bell, Valetta, Malta; Thomas Fairbank, Islington.

The following Gentlemen also on the same day passed their First Examination :—

Alexander McIvor Tindall, St. Bartholomew's Hospital; William Cunningham Cass, University College; William Hoffmeister, University College; George Gill, Liverpool Royal Infirmary.

The following gentleman passed the Preliminary Examination in Arts, held at the Apothecaries' Hall, on the 23rd and 24th ult., but was omitted in the published list, viz. :—

William Wingate Saul, Sibsey, Lincolnshire.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

DOWNES, JAMES B., M.R.C.S. Eng., has been appointed Resident Surgeon to Christ's Hospital, New Zealand.

FENWICK, R., M.R.C.S. Eng., has been appointed Surgeon to the St. Peter's Workhouse, Bristol.

HEADLAND, FREDERICK W., M.D. Lond., has been elected Professor of Materia Medica and Therapeutics at the Charing-cross Hospital Medical College.

JONES, EVAN, M.R.C.S. Eng., has been appointed Surgeon to the Aberdare Iron Works.

MUSHET, WILLIAM B., M.B. Lond., has been appointed Medical Officer to the Jews' Hospital, Lower Norwood.

PIGG, THOMAS, M.D. St. And., has been appointed Surgeon to the Ardwick and Ancoats Dispensary, Manchester.

DEATHS.

BLACKWOOD, PINKSTAN, Surgeon, at the Vicarage, Middleton Tyas, Yorkshire, on October 5, aged 87, formerly Surgeon of the Royal North Downshire Militia.

GALLAGHER, JOHN, M.B. St. And., R.N., at Iceland Island, Bermuda, on September 20, Deputy-Inspector of H.M. Fleets and Hospitals.

HEURTELOUP, Baron, who, some thirty years since, excited considerable attention when lithotrity was first making its way in the Profession, died recently at Paris, aged 71.

JEFFERY, J., M.R.C.S. Eng., of Northampton, at Trinity-terrace, Southwark, S.E., on September 27.

LOWNDES, J. M., Surgeon, of Buckfastleigh, Devon, on September 16, aged 26.

RUSSELL, WILLIAM, M.D., at Lausanne, Switzerland, on October 2.

SLATER, THOMAS, Surgeon, H.M. Emigration Service at Demerara, West Indies, on September 27.

PROFESSOR OWEN, F.R.S.—This distinguished naturalist gave his second lecture to a Birmingham audience on Monday last, the theatre, as before, being crowded. He said that the discovery of a species of the mammalian quadruped in the oolitic state was very interesting. There was an old quarry near Oxford which had yielded many interesting geological specimens. One day the old quarryman brought a small jaw, and on handing it to Dr. Buckland, said, "I think, sir, I've got the jaw of the rat that was drowned in the deluge." (Laughter.) Dr. Buckland could scarcely believe the discovery. In 1815, when Baron Cuvier visited England, he showed it to him, and he at once stated that it belonged to an animal of the mammalian class, and was nearly allied to an opossum. The Baron, however, would not believe that it came from the oolitic state, until he had received a report from a gentleman whom he had specially commissioned to come over to England and make an examination, and who confirmed Dr. Buckland's report. To give them some idea of the age when the little creature lived, he might tell them that all their downs of chalk—their grand white chalk cliffs, from which Albion obtained her name—had been circulating in living vessels of living animals, subsequently to the time when that little animal had lived and died.

WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON.—The opening meeting of the Session will take place on Friday, October 21, at 8 p.m., the President, Mr. G. Pollock, in the chair, who will read a paper "On the Relative Advantages of Puncturing the Bladder by the Rectum and Perineal Section, for the Treatment of Impervious Stricture."

THE LATE DR. MILROY.—The name of this excellent young officer is now added to the melancholy list of those brave men who have fallen at Bermuda in the discharge of their humane but extremely perilous efforts to stay the progress of a terrible visitation. His career has been comparatively brief, but marked by devotedness to his country's service and distinguished eminence in the studies belonging to his Profession. He entered the army at the outbreak of the war with Russia, and continued throughout all that memorable campaign. Bravely did he fulfil his duties in the battles of Alma and Inkerman under the fire of the enemy and in the trenches before Sebastopol, for which services, in addition to the Crimean and Turkish medals, he was decorated with the Order of the Medjidie. On the termination of the war he continued with his regiment in Ireland, the Mediterranean, and for the last three years in Canada, where he is well known, and has left many devoted friends. To his fellow-officers he was greatly endeared by his gentleness of manner, fine cultivated taste, high honour, and genial disposition, while the private soldiers of the 30th held him in affectionate veneration for his unwearied efforts to advance their comfort and intellectual and moral improvement."—*Times*, October 11.

REVIVED CORKS.—M. Stanilas Martin calls attention to the employment of refuse corks as dangerous to public health. It is the custom of the Paris scavengers to collect those which are brought down by the sewers, and sell them to persons who make it their business to revive them. If they are misformed, they are recut; while, if containing holes, these are filled up with mastic, and then smeared with a powder to give them a proper colour. Such corks used only to be employed by the ink and blacking makers, but their low price (5s. 6d. per 1000) has of late induced retailers of bottled drinks to purchase them. M. Martin asks if there be not ground for alarm lest some of these corks may have been formerly used to stop bottles containing poisonous substances; for although a good cork is not permeable, a bad one, full of holes, may readily become the receptacle of particles of verdigris, carbonate of lead, arsenic, or an infinity of other poisonous substances, which may be more or less soluble in water, wine, beer, cider, vinegar, milk, or oil? It is to be hoped also that these revived corks have never given rise to juridical errors, causing the innocent to be declared guilty.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Ferrier Clarke's interesting case should be exhibited at the Obstetrical or Pathological Society. He is thanked for his communication.

Chirurgus.—Try the pill of aloes and sulphuric acid, mentioned in the Appendix to the "Surgeon's Vade-Mecum."

To Correspondents.—Mr. H. Charlton Bastian having already published his strictures on Dr. Cobbold's description of the Anatomy of the Guinea Worm in a late number of the *Reader*, we must be excused in the present crowded state of our columns devoting space to the controversy.

GRIFFIN TESTIMONIAL FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following subscriptions have been further received on behalf of the above fund :—J. T. Savory, Esq., Wendover, 5s.; W. E. Porter, Esq., Lindfield, 5s.; J. F. Martin, Esq., Abingdon, £1 1s.; P. La Fargue, Esq., Meriden, £1; J. J. Clapcott, Esq., Beaminster, £1 1s.; Dr. W. H. Colborne,

Chippenham, £1 1s.; H. B. Smith, Esq., Battle, 5s.; J. Prankerd, Esq., Langport, 10s.; Messrs. Firth and Fernie, Macclesfield, 10s. 6d.; Dr. Wm. Ogle, Derby, 10s. 6d.; Dr. Hulme, Wigston Magna, near Leicester, 10s.; Dr. Barnes, Finsbury-square, £1 1s.; D. Dorning, Esq., Barton-on-Irwell, £1; Rd. Roe, Esq., Barton-on-Irwell, £1; J. L. Fletcher, Esq., Eccles, 10s.; G. Calder, Esq., Hailsham, 5s.; J. E. Clouting, Esq., Shipdham, 10s.; A. C. Shout, Esq., Petworth, 10s.; J. Wills, Esq., Sturminster, 10s.; Medical Officers of Leek Union, 10s. 6d. Amount previously announced, £67 13s. 6d. Received at the *Lancet* Office, £4 12s.

I am, &c. ROBERT FOWLER, M.D., Treasurer and Hon. Sec.
145, Bishopsgate-street Without, October 12.

THE NATIONAL MEDICAL REGISTRATION ASSOCIATION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Towards the conclusion of your excellent Leader on "The Law and the Quacks," you state "that the Association known under the name of the Protection Society is virtually defunct, having left its own officers in debt for its operations." Now, this is virtually true of the National Medical Registration Association, and it is to that Society your remarks no doubt are intended to apply, and not to another still in existence, and known as the Medical Protection Society. The latter Society is solely confining its operations to the protection of our pockets, and in no way seeking to put down the numerous quacks who rob us of our good name (a robbery far more important than the pocket), as well as thousands upon thousands annually. On the other hand, by the aid of the National Medical Registration Association, it was expected we should purge our ranks of the numerous unqualified scamps that damage the Profession in every way. But the members of this Society, finding their efforts met with no response from the public or the magistracy, and disheartened by numerous failures to procure justice, gave the whole thing up in despair. This, however, was brought about in anything but a creditable way, and, as you have said, they abandoned their treasurer and committee with a debt for legal and other charges properly incurred for the benefit of the Profession at large amounting to the large sum of £200.

As a member of their last committee, I am not quite without hope that the Profession, as a body, and the members of that Association will be convinced by your arguments, and by the latest decision of one of our most intelligent police magistrates, Mr. Paget (see *Times* newspaper of the 30th ult.), that our efforts may in all probability yet meet with their reward if we unitedly persevere. It is clear that the merits of the 40th clause have not been legally and fairly decided; so that if we select our cases with discretion and obtain the best legal assistance to prosecute them with proper rigour, we may hope to see this clause made a terror to the swarms of quacks that beset us at every corner and in almost every street of this metropolis. I may add that it is the intention of some old and staunch supporters of the National Medical Registration Association to put the thing to the test by first calling upon the members of the Association to say if the Society shall be broken up, and its executive shabbily abandoned, and left to pay off a debt which has pressed with undue severity upon their much-respected friend Mr. Lavies, who has, indeed, had to put up with incessant annoyances, threats of lawsuits, etc., for three years past; and at the same time it is intended that some public recognition of Mr. Lavies' valuable services should take place on an early day next month.

I am authorised to announce that the eminent Surgeon Mr. Fergusson has offered to give his cordial co-operation in any movement the members may think proper to start for the attainment of so desirable an object.

I am, &c.
AN OLD MEMBER OF THE NATIONAL MEDICAL REGISTRATION ASSOCIATION.

MEXICAN FLINT WEAPONS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—It would appear agreeable to the scientific character, and certainly accordant to that temper of mind which is favoured by the study of our Profession, to prefer the evidence of things proximate and perfectly credible to conclusions founded on what is distant and beyond computation. It is in this sense that I offer to your notice, and that of your readers, some particulars on the subject of flint weapons. These particulars I have borrowed from the valuable work of Mr. Tylor, published 1861, under the title of "Anahuac; or Mexico and the Mexicans, Ancient and Modern." I must now refer to the work itself for a host of details which make up the subject.

At the time of the Spanish invasion, A.D. 1519, the working of iron as a metal was unknown in Mexico, but copper (bronze?) axes existed to a limited extent without in any degree interfering with the immensely extended flint manufacture. This historical fact might suggest to us that in Europe, as the near-at-hand weapon of the existing population, flint instruments were probably in favour down to a later period than has recently been conceded by investigators. It would seem that Mr. Tylor's view of the process of manufacture by striking or pressure is in unison with the account Sir E. Belcher gives of the Esquimaux, rather than with what we have lately received through the public press as being the mode in which at Copenhagen the Scandinavian axes are supposed to have been made, viz., on the grindstone.

The following is a note translated from a Spanish historian, Torquemada (*Monarquia Indiana*, Seville, 1815), appended to Mr. Tylor's work:—

"They had, and still have, workmen who make knives of a certain black stone or flint, which it is a most wonderful and admirable thing to see them make out of the stone, and the ingenuity which invented this art is much to be praised. They are made and got out of the stone (if one can explain it) in this manner:—One of these Indian workmen sits down upon the ground, and takes a piece of this black stone, which is like jet, and hard as flint. . . The piece they take is about eighteen inches long, or rather more, and as thick as one's leg, or rather less, and cylindrical; they have a stick as large as the staff of a lance, and three cubits, or rather more, in length; and at the end of it they fasten firmly another piece of wood, eight inches long, to give more weight to this part; then pressing their naked feet together, they hold the stone as with a pair of pincers or the vice of a carpenter's bench. They take the stick (which is cut off smooth at the end) with both hands, and set it well home against the edge of the front of the stone (*y ponendo avesar con el canto de la frente de la piedra*), which also is cut smooth in that part, and then they press it against their breast, and with the force of the pressure there flies off a knife, with its point and edge on each side, as neatly as if one were to make them of a turnip with a sharp knife, or of iron in the fire. Then they sharpen it on a stone, using a hone to give it a very fine edge; and in a very short time these workmen will make more than twenty knives in the aforesaid manner. They come out of the same shape as our barber's lancets, except that they have a rib up the middle, and have a slight graceful curve towards the point. They will cut and shave the hair the first time they are used, at the first cut nearly as well as a steel razor, but they lose their edge at the second cut; and so, to finish shaving one's beard or hair, one after another has to be used, though, indeed, they are cheap, and spoiling them is of no consequence. Many Spaniards, both regular and secular clergy, have been shaved with them, especially at the beginning of the colonisation of these realms, when there was no such abundance, as now, of the necessary instruments, and people who gain their livelihood by practising this occupation."

Hernandez (*Rerum Med. Nov. Hisp. Thep. Rome*, 1651) gives a similar account of the process. He compares the wooden instrument used to a cross-bow. It was evidently a T-shaped implement, and the workman held the cross-piece with his two hands against his breast, while the end of the straight stick rested on the stone.

I am, &c.
3, Westbourne-park. GEORGE GASKOIN.

COMMUNICATIONS have been received from—
WESTERN MEDICAL AND SURGICAL SOCIETY; Mr. W. J. BAKER; Mr. R. GRIFFIN; ANTHROPOLOGICAL SOCIETY OF LONDON; ST. JOHN'S HOSPITAL FOR SKIN DISEASES; Dr. ROBERT FOWLER; Dr. FOTHERBY; HUNTERIAN SOCIETY; A STUDENT; Mr. J. BRENDON CURGENVEN; HARVEIAN SOCIETY OF LONDON; AN OLD MEMBER OF THE NATIONAL MEDICAL REGISTRATION ASSOCIATION; Dr. JAMES FERRIER CLARKE; APOTHCARIES' HALL; CHIRURGUS; Dr. J. DEANE; Dr. THOMAS PIGG; Mr. GEORGE GASKOIN; Dr. W. C. BURDER; Dr. S. C.; Dr. K. H. BOLD WILLIAMS; JUNIOR MEDICAL SOCIETY OF LONDON; Dr. LYONS; Dr. J. PATERSON.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 8, 1864.

BIRTHS.

Births of Boys, 997; Girls, 899; Total, 1896.
Average of 10 corresponding weeks, 1854-63, 1634·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	637	626	1263
Average of the ten years 1854-63	572·5	553·6	1126·1
Average corrected to increased population..	..	..	1193
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa
West ..	463,388	2	8	7	4	5	4	4
North ..	618,210	4	6	18	9	3	17	13
Central ..	378,058	1	5	7	4	8	6	6
East ..	571,158	..	14	17	3	5	11	14
South ..	773,175	..	2	31	..	8	17	9
Total ..	2,803,989	7	35	80	20	29	55	46

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·043 in.
Mean temperature	49·7
Highest point of thermometer	62·4
Lowest point of thermometer	37·5
Mean dew-point temperature	40·5
General direction of wind	E. & E.N.E.
Whole amount of rain in the week	0·00 in.

APPOINTMENTS FOR THE WEEK.

October 15. Saturday (this day).
Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

17. *Monday.*
Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.
MEDICAL SOCIETY OF LONDON, 8 p.m. General Introductory Address, by the President.

18. *Tuesday.*
Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

19. *Wednesday.*
Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.
HUNTERIAN SOCIETY, 8 p.m. Meeting.
JUNIOR MEDICAL SOCIETY OF LONDON (University College), 8 p.m. Mr. Ch. E. Orme, "On the History and Nature of Wasting Palsy."

20. *Thursday.*
Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.
HARVEIAN SOCIETY OF LONDON, 8 p.m. Mr. W. Adams, "On Forcible Extension in Cases of Partial Anchylosis or Stiff Joint."

21. *Friday.*
Operations, Westminster Ophthalmic, 1½ p.m.

MR. HEATHER BIGG, Assoc. Inst. C.E.,

ANATOMICAL MECHANICIAN,

By Special Appointment, to

THE QUEEN AND THE PRINCE OF WALES,

Begs to inform the Medical Profession who favour him by sending their patients that he remains at

56, Wimpole Street, W.,

Daily from half-past 11 until half-past 3, where he has formed a COLLECTION OF MODELS illustrating every kind of

Orthopædic, Surgical, and Anatomical Mechanism,

thus enabling a Medical Man to instantly determine the form of apparatus he may wish adopted for any given case.

His Manufacturing Premises are conducted, as hitherto, under his personal superintendence at

29, Leicester Square,

where he may be seen by appointment at 5 o'clock.

AUTHOR OF

ARTIFICIAL LIMBS, and their Adaptation.
DISTORTIONS of the LOWER EXTREMITIES, and their Appliances.
GYMNASTICS APPLIED TO DEFORMITIES.
SPINAL CURVATURE, and its Appliances.

JOHN CHURCHILL AND SONS, NEW BURLINGTON STREET.

Announcement.

Mr. C. G. GUMPEL,

ANATOMICAL, ORTHOPÆDIC, AND SURGICAL MECHANIST,

FOR THREE YEARS PRINCIPAL ASSISTANT AT THE ORTHOPÆDIC INSTITUTE OF

Dr. OTTO LANGGAARD, at HAMBURG,

FOR EIGHT AND A-HALF YEARS MANAGING ASSISTANT AND DESIGNER WITH

Messrs. BIGG and SON,

Begs respectfully to inform the Medical Profession that he has opened premises at

49, LEICESTER-SQUARE, W.C.,

For the construction of all kinds of Orthopædic and Anatomical Appliances and Machinery for the treatment of deformities, the support of muscular debility, and the supply of substitutes for deficiencies of the human frame.

His long experience in the above capacity, combined with a thorough

PRACTICAL AND THEORETICAL EDUCATION IN APPLIED MECHANICS,

enable him to carry out the orders of Medical men who may favour him with their patronage.

Obtained a Prize at the Exhibition of 1862 for "Ingenuity and Adaptation."

For great Excellence of Manufacture

ORTHOPÆDIC AND ANATOMICAL MECHANISM.

By Appointment to the National Orthopædic Hospital.

FR. G. ERNST,

Manufacturer of Orthopædic and Anatomical Appliances, Surgical Instruments, Elastic Bandages, &c., &c.,

19, CALTHORPE-STREET, LONDON, W.C.; and at the CRYSTAL PALACE.

Of numerous Orthopædic Instruments.

QUINÆ SULPH. (SEMI-CRYSTALLISED.)

This preparation possesses all the active Alkaloids of Yellow Cinchona Bark, combined with Sulphuric Acid, without the useless Gum, Starch, and woody matter.

By avoiding the usual repeated Crystallisations necessary for the separation of the various Alkaloids of Quinine, Quinidine, Cinchonine, &c., and by preparing it in only a semi-crystallised form, this article is produced at nearly half the cost of pure Sulphate of Quinine.

Prepared by HERRINGS and CO., Wholesale Druggists, 40, Aldersgate-street, E.C., London.

ORIGINAL LECTURES.

THE OPTICAL DEFECTS OF THE EYE.

A COURSE OF LECTURES DELIVERED DURING THE SUMMER OF 1862 AT THE

Surrey Ophthalmic Hospital,

By J. ZACHARIAH LAURENCE, F.R.C.S., M.B. Univ. Lond.,
Surgeon to the Hospital.

(Continued from page 245.)

THERE are two ready modes of ascertaining the focal length of a concave lens,—the one is to see the magnifying power of what convex lens it exactly neutralises. The positive focal length of this latter is the negative one of the concave lens in question. This method is not practically applicable to low powered concaves. The focal length of a concave lens may be ascertained by finding out what convex lens placed in apposition with it no longer makes distant objects appear to move (or "dance") as we move the pair of lenses rapidly before the eye. To illustrate this method, suppose I have a concave lens given to me, and that, when I place a nine-inch convex lens to it, and look through the pair at distant objects, I find, as I move the combination downwards, objects appear to rise—that, on the contrary, when I place a 13-inch convex to it, the objects appear to move downwards as I move the combination downwards; then the concave lens in question has a focal-length between 9 and 13 inches. I now try convex lenses of 10 and 12 inches, but still notice the same apparent movements of objects, though to a less degree. I then try an 11-inch convex lens, and find that objects viewed through it and my concave lens no longer execute any apparent movements at all in moving the combination, then the concave lens in question is one of 11 inches focus.

In all cases that an object appears to move by this method it is its image which really does so; in the first case (with the 9 in. and 10 in. convexes) an inverted, in the second case (with the 13 and 12 in. convexes) an erect one. This method is remarkably easy and quick in practice.

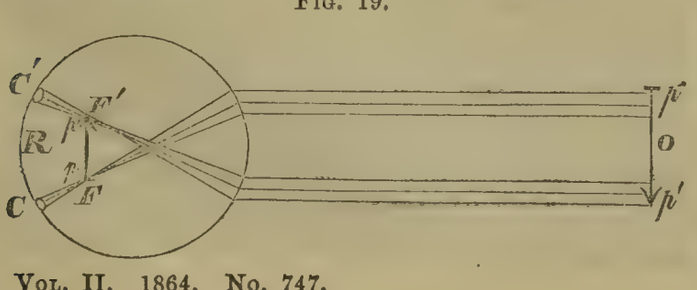
The "numbers" English opticians designate their convex spectacle lenses by correspond with their actual focal lengths (in English inches), but the numbers they name their concaves by are arbitrary. The subjoined table (from Mackenzie) gives to what focal lengths of concaves the numbers in question correspond. I give this table for the sake of completeness, but in my practice I altogether ignore such an illogical nomenclature:—

Numbers.	Focal lengths in inches.	Numbers.	Focal lengths in inches.
1	48	7	9
2	36	8	7
3	24	9	5
4	18	10	4
5	14	11	3
6	12	12	$2\frac{1}{2}$

Referring to the previous table of the diagnostic signs of the three different classes of eyes, we find that the myopic one in a state of rest presents characteristics, which we shall now illustrate.

(1.) "*Parallel rays are focussed in front of the retina.*" This hardly needs explanation: the parallel rays from each luminous point (*p*, Fig. 19) of a distant object (*o*) are re-united (converged) to a corresponding luminous point (focus, *F*) in front of the retina (*R*); from each point the component rays of the pencil, pursuing their paths uninterruptedly outwards, re-separate (diverge); thus each point of the object is represented by a circle (*C*) (of confusion), the vertical section of a cone of divergent rays, and thus, as before fully explained, vision becomes indistinct.

FIG. 19.



(2.) "*The far-point is at a definite distance from the eye and positive.*" The far-point is the furthest distance at which a luminous point is critically distinctly seen. It is the furthest point which can, by the refractive power of the eye, be focussed again to a point *on* the retina. The normal eye sees critically distinctly a luminous point at *any* distance (leaving out of consideration for the present the *magnitude* a point must have to be perceptible to the eye—the minimum visible) (a): the far point is therefore, in this case, indefinite or infinite. Agreeing to call lines measured from the vertex of the cornea forward positive, lines measured from the same point backward negative, the far-point in the normal eye is infinite and positive (*vide* table, column 3). In the myopic eye the far-point is also positive, but it must be at a definite distance. This varies extremely in different cases. I have met with one case where the patient could not see any object clearly further off than $1\frac{7}{8}$ English inch; others, in which the far-point was at 2 inches from the cornea, and so through all distances up to 80 inches, in which last case the eye practically differs very little from a normal eye. The former high myopics require very strong concaves, and yet, when I tell you that ordinary opticians hardly ever keep glasses of a shorter focus than 6 inches, you will really understand that there are many persons who may consider themselves practically blind for the want of sufficiently high glasses; whilst, on the other hand, many low myopics are unaware of their slight optical defect till they feel surprised at the improvement their vision experiences from a slightly concave (such as a $\frac{1}{50}$) glass.

The first thing to ascertain in any suspected optical defect of the eye is to determine to which of the three classes of eyes it belongs. This may be ascertained, speaking generally, by placing the patient at 5—7 yards off a graduated series of types, varying from Nos. 23 to 18 of Jäger's scale (b), and ascertaining his power of reading such types. If no concomitant amblyopia be present (which, however, nearly invariably co-exists in all extreme optical defects), he should be able to read No. 19. If he cannot, or even if he can, see whether a low-powered concave (*e. g.*, $\frac{1}{40}$th) improves vision? if so, he is myopic; or a low-powered convex (*e. g.*, $\frac{1}{40}$th)? if so, he is hypermetropic; (c) or either deteriorates vision? if so, his refraction is normal. In instituting such an examination some precautions must be taken. Many persons fancy any low-powered glass improves their vision; this may be a mere fancy. If such suspicion exists in the mind of the Practitioner, let him hold a piece of plane glass (of which I have a piece shaped like the real lenses in my trial-case) before the eye. The patient will probably give evidence of his own delusion by declaring *it* also improves his vision. Again in all such examinations each eye must be tested separately, (d) then the two together. I have met with five cases in which the one eye being normal the other was myopic. Cases of different degrees of myopia in the pair of eyes are quite common.

Having thus ascertained that a patient is myopic, our next object is to determine what particular power glass he requires. This demands the greatest care; to give him too deep a glass would entail an unnatural expenditure of accommodation for distance in order to neutralise the excess of power; to give him too low a one would deprive him of all the advantages the perfect correction of his myopia might confer. We obtain a clue to the required glass by a rough approximation to the far-point. For this purpose, I in ordinary cases employ as my optometer No. 1 of Jäger's test-types. In high degrees of myopia larger types must be used, on account of the nearly

(a) Drs. Snellen and Giraud-Teulon have devised a series of test-types in which this element is taken into consideration. In those of the former the minimum angular magnitude of distinct vision is taken as 5 mts., in the latter as 1 mt. They are further graduated in such a manner that their numbers correspond in Paris feet to the distances at which the breadth of each letter subtends the above angles on the retina.

(b) I have had a number of sheets of such types printed off; they may be had of the Secretary to the Surrey Ophthalmic Hospital, St. George's-circus, Southwark.

(c) You will often find a convex or concave glass improves vision for distance; but still does not enable the patient to read any *less* type than he could before. This may depend on astigmatism or amblyopia.

(d) "As it very frequently happens that one eye has not exactly the same focal length as the other, and that, when it has, the vision by one eye is less perfect than that by the other; the picture formed by uniting a perfect with a less perfect picture, or with one of a different size, must be more imperfect than the single picture formed by one eye."—(Brewster on the Stereoscope, p. 46.) Porterfield (vol. ii., p. 10) directs attention to the different "limits" of vision persons may have in either eye. In testing each eye separately, it is advisable for the Surgeon to simply hold his hand in front of the eye not under examination; any compression of the eyeball by the patient's forcible closure of the eyelid may impede the free play of the eyeballs, and thus influence the refractive condition of the eye under examination.—(*Vide* Müller's "Physiology," Baly's translation, p. 1148.)

constantly co-existing amblyopia. I may here mention a rather unscientific instrument that I have adapted to the purpose. I take an ordinary shoemaker's rule; the fixed upright I cut down and notch out for the reception of the patient's eye; to the sliding upright I affix three small springs, which retain in position an ordinary address-card, on to which the test-type is pasted. The fixed upright then corresponds exactly with the surface of the cornea, and by sliding along the other moveable one with the test-type attached to it, we can expeditiously find and read off the near-point, and approximatively the far-point. This little apparatus is seen at Fig. 20.

Fig. 20.

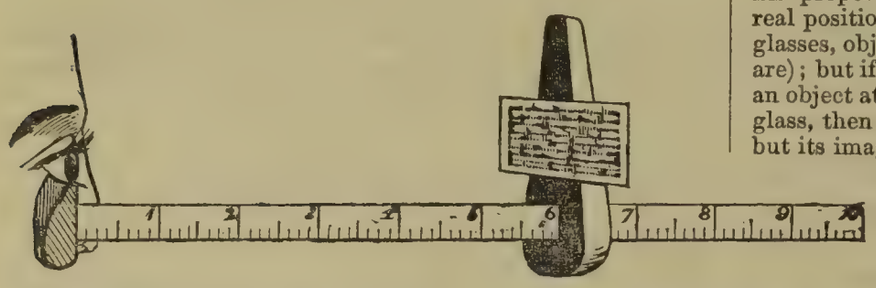


Fig 20.—Author's optometer. The test-type is represented as exactly 6 inches from the patient's cornea. I have recently added a grooved ring at the corneal end for the reception of auxiliary lenses.

Prof. v. Gräfe has proposed a set of fine wires set in a frame as an optometer; when the wires are seen singly and well-defined, vision is accurate. But in practice I find this and all such tests fail, even with educated persons, and much more so with Hospital patients.

Suppose, then, you find the patient loses perfect definition of No. 1 type at 6 inches, that his furthest point of critically distinct vision is, roughly, about 6 inches, we should then, according to theory, give him for distant objects a concave glass of $5\frac{1}{2}$ inches focal length (the glass being $\frac{1}{2}$ inch from the cornea); for then we should present to the eye an image of the distant object exactly (6 inches from his cornea) at his extreme limit of distinct vision. But practice teaches us even a 6-inch concave would be too strong a glass for distance; he will probably require a 7 or an 8-inch one: which of these, we must find out by trial.(e) Now, what does this apparent contradiction between theory and practice arise from? From two circumstances, viz.:—1. The associated action of the internal recti and ciliary muscles. Parallelism of the eyeballs corresponds with relaxation of these muscles (strictly of the circular fibres of these muscles), convergence with their contraction. Now, when we tested our patient with the test-type with his naked eyes, these converged to a point 6 inches off—the ciliary muscles acting consentaneously increased slightly the convexity of his crystalline lenses—increased their power. But when, with concave glasses on, the patient regards distant objects, the consequent parallelism of the eyeballs is accompanied by a corresponding relaxation of the ciliary muscles—a diminution of power of the crystallines; the concave glasses must, therefore, be of longer focal length than the found far-point, they no longer having any accommodation to neutralise. And, 2, from the letters of the type not being distinctly recognisable further than 6 inches, on account of the diminution in their angular magnitudes.(f)

The *rationale* of the action of a concave glass in myopic patients was at one time a matter of extreme difficulty to me. The knot I found cut by authors by two views—(1) that the concave glass substitutes for a distant object its virtual image at the patient's farthest point of distinct vision; (2) that it simply increases the divergence of the rays, leaving the locality of the object unchanged. Both explanations are as confused, as they are unsatisfactory. Of the following experiments, I believe the second one to be original; if not so, it is certainly but little known. 1° view any object, such as a candle-flame, through a deep concave glass (or an inverted opera-glass), it appears diminished and much further off than it really is. This is owing to our mental association of diminution of size (an inherent effect of the concave glass) with distance. But 2° view the object with either eye in such a way as to see it simultaneously both *through* and *not through* the concave lens, we then at once perceive the object at its real distance from the eye, its image at a distance from the lens exactly equal to to the focal length of this latter.(g) To a myopic person with his proper reducing glasses all distant objects appear in their real positions—(to high myopics, who have never before worn glasses, objects often at first appear further off than they really are); but if the myopic patient with either eye regards, as in 2°, an object at the same time *through* and *not through* his reducing glass, then he at once perceives the object in its real position, but its image formed exactly at the focal length of the concave glass.

These simple experiments prove that the myopic eye with its reducing concave really sees the virtual images of distant objects at the focal length of the glass; but *mentally refers them to their true planes of situation.* Were it not for this faculty of the mind the concave glasses would confuse their wearers much more than they assisted them.

Professor Donders has proposed a convenient nomenclature for different degrees of myopia—viz., naming them by the *powers* of their respective reducing glasses. In this way we speak of a person having a myopia of $\frac{1}{2}$, another of $\frac{1}{4}$, a third of $\frac{1}{12}$, etc. The advantage of this system is, that these fractions, by their intrinsic value, express the *degrees* of the myopia, which 2, 4, 12, etc. (the *focal lengths* of the glasses) would not do.

Having accurately corrected the myopia of a patient by his reducing glasses, have we practically transformed the eye into a normal one? By no means. In the first place (as we shall hereafter advert to), most myopic eyes are essentially diseased ones. Secondly, all concave glasses diminish, more or less—the virtual images presented by the glass to the eye appear less than their respective objects. The virtual image of a distant object has the same angular magnitude as this object itself has, but being much closer to the eye the mind conceives it to be so much less. A man seen at a considerable distance appears to the observer no larger than a child seen close, and *vice versâ*. The diminishing power of concave glasses (and the magnifying of convex ones) is then probably a purely mental illusion. But for retinal images (in the case before us the image of an image) to convey to the mind defined impressions, they must not be under a certain magnitude,—in plain language, there are many objects that no one can see beyond a certain distance, or even at any distance, ever so near the eye.(h) When we are dealing with low degrees of myopia, such as $\frac{1}{20}$, $\frac{1}{14}$, $\frac{1}{10}$, etc., the diminishing property of concave glasses is attended with no inconvenience; but, as soon as we arrive at high degrees, such as $\frac{1}{6}$, $\frac{1}{4}$, $\frac{1}{3}$, or $\frac{1}{2}$, etc., we find that no glasses, at any rate, at first, however accurately chosen, will enable the patient to read a moderately small type, such as 20 or 19, at any considerable distance; but that for each of the types from 23 to 19 he must approach nearer and nearer to the type in proportion to its smallness. It would follow, from what I have previously said, that high myopics should by practice at last be able to overcome the apparent diminishing power of concave glasses, and such I believe to be partially the case; but as this whole subject requires investigation, I refrain committing myself to any further opinions on the point.

Another remarkable circumstance affecting the application of reducing glasses to high myopics is, that those patients

(e) This trial might be much facilitated by an ingenious adaptation, by Prof. v. Gräfe, of the Galilean telescope to optometric purposes. In this instrument, when the eye-piece and object-glass are separated by a distance equal to the difference of their focal lengths, the rays emergent from the system are parallel; if this distance be diminished, divergent; if increased, convergent. On the body of this optometer the different degrees of myopia or hypermetropia respectively are marked off corresponding to different degrees of separation of the eye-piece and object-glass. The physical and psychical fatigue and confusion involved in the repeated apposition and comparison of various trial glasses to the eye are thus avoided; but, at the same time, I must add that the results I have obtained from v. Gräfe's instrument are often fallacious.

(f) Prof. v. Gräfe states that in myopics (not simultaneously affected with weakness of the internal recti) the *power* of the internal recti increases with age, so that they can reach their far-point under a considerable convergence of the optic axes, which convergence does not imply any *exertion* of the recti. As far as my observation goes, I cannot agree with the learned Professor on this point, my experience all tending to corroborate the views expounded in the text.

(g) The simultaneous perception of the real position of the object with its image destroys the mental illusion that refers this latter to the presumed situation of the object. I may say that Mr. Parkinson, of Cambridge, to whom I submitted this theory, quite coincides with my views on the subject. A similar mental illusion is the "conversion" of a *bas-* into a *haut-relief*, according to the way in which the light falls on an intaglio (or cameo).—*Vide* Brewster's "Natural Magic," p. 98, *et seq.* The observation "2°" in the text explains, I think, certain cases of *monocular* diplopia, due probably to differences of refractive power in different parts of the optical constituents of the globe. I have thus recently observed a very marked case of monocular diplopia in a case of partial dislocation of the lens.

(h) Dr. Hook estimated the *minimum visible* as comprised in an angle of 1 minute, as is assumed in Giraud-Teulon's test-types, Dr. Snellen in his taking it as 5 minutes.

invariably complain of a peculiar "dazzling" appearance these very deep glasses confer on objects. So disagreeable is this sensation that such patients invariably prefer lower glasses to those which completely neutralise their myopia: in other words, they prefer sacrificing definition in order to rid themselves of this annoying feeling. Donders ("Archiv. f. Ophthalmologie," vol. iv. part 1, page 312) has also noticed the fact, but does not appear to have further inquired either into its cause or its remedy. I at first thought it depended on the back (ocular) aspect of the deep concave glass in its capacity of a concave mirror reflecting side-light on to the eye; but I found that covering this back with a dead-black paper, leaving only a central aperture for vision, had no remedial effect on the "dazzling." I have, however, succeeded in finding the remedy: it consists simply in tinting the glass.(i). This appears to me to prove that the sensation alluded to has its origin in some hyperæsthetic condition of the retina to light. The only direct evidence I have to advance in favour of this hypothesis is, that I have never seen any of the higher degrees of myopia unaccompanied by morbid alterations of the fundus oculi (staphyloma postic.) but once; and in this instance—a myopia of $\frac{1}{18}$—the patient wore a 2-inch uncoloured concave glass without any inconvenience. I have thus succeeded in solving what I think will be allowed to be an important practical problem—that of enabling high myopics to avail themselves of all the advantages of the perfect definition their actual reducing glasses can give, without at the same time being annoyed by this disagreeable "dazzling."(k)

An important practical question arises, whether a short-sighted person should use the same glasses for near as he does for distant objects. This will in great measure depend on the amount of accommodation he possesses. A young subject, but moderately myopic, with an average accommodation, may use the same glasses for both purposes. But you will almost invariably find that persons who are extremely short-sighted, so as (*e.g.*) to require concave glasses anything deeper than 6 inches focal length, have a very limited accommodation, or none at all. Such patients imperatively require two pairs of glasses—one for constant use, the other for reading, working, etc. In the choice of the latter you must be guided by the amount of accommodation present. How is this accurately found?

The best test object for the determination of the near-point (p) I consider to be a small type, this possessing the advantage of our really knowing that the patient must see it tolerably accurately to be enabled to read it. In the choice of the size of such a type we must be guided by the condition of the eye under examination—*i.e.*, we should employ a larger type in the case of a presbyopic or hypermetropic eye than we should in a normal or myopic one. No. 1 of Jäger's types is, generally speaking, one that may be advantageously employed. In testing the near point with an auxiliary convex lens, *vide infrâ*, great accuracy may be attained from some of the minute types furnished by photo-lithography, a whole page of which may be bought for the purpose in the ninth number of the *Popular Science Review*.

The far-point (r) may be determined in one of two ways. If the person with the unassisted eye reads the larger of Jäger's types (20 — 18) at 20 feet, it may be inferred to be infinitely far off ($r = \infty$). If, on the other hand, a lens (convex or concave) is required to read these or larger types (there being coexistent amblyopia), the focal length of the glass employed gives the required far-point, the distance of the glass from the cornea being subtracted in the case of myopia, added in that of hypermetropia, to the focal length found. A second, perhaps more accurate, method of determining the far-point (or near-point) consists in placing before the eye a convex glass of 10″—12″ focus, and then determining the far-point (or near-point) by the aid of minute types. From the artificial values thus obtained, the natural positions of both these points may be readily inferred from the formula given in the fifty-seventh number of the *British and Foreign Medico-Chirurgical Review* (*supra citat*), which I now give with some modifications of the letters employed:—

"The focal length of the auxiliary glass $= f$. The distance between the glass and the crystalline lens $= k$. The distance between the glass and the object $= b$. The distance between the glass and the point from which the rays seem to proceed, or towards which they converge after refraction $= \beta$ ($= p$ or r), according as we are determining the near or far-point.

$$\frac{1}{b} + \frac{1}{\beta} = \frac{1}{f}$$

$$\beta = \frac{bf}{b - f}$$

From the found values of p and r, we deduce the accommodation, A, for the formula—

$$\frac{1}{A} = \frac{1}{p} - \frac{1}{r}." \text{ (l)}$$

I may illustrate the application of this formula in my own left eye, which is myopic to about $\frac{1}{10}$. I find using a 12″ convex lens, for the far-point $b = 5\frac{3}{8}$″, for the near-point $b = 2\frac{3}{8}$″, k being in both cases $= \frac{1}{2}$″. Therefore

$$\beta = \frac{5\frac{3}{8} \times 12}{5\frac{3}{8} - 12} = -\frac{516}{53} = -9{\cdot}7'';$$

adding $\frac{1}{2}$″ to this, my far-point ($= r$) would be 10·2″: the reducing glass of my myopia is, as previously ascertained, $\frac{1}{10}$. Similarly I deduce, using the same auxiliary lens, my near-point (p) to be 3·4″, and without it $= 3{\cdot}4''$.

Suppose, now, we find that a person who uses 7-inch concaves, for distance has an accommodation of $\frac{1}{12}$th; to see distinctly at 12 inches the patient will, with his reducing glasses on, have to use his entire accommodation. But such a procedure would soon so exhaust the ciliary muscle as to lead to all those symptoms of fatigue of the eye which we shall hereafter fully enter into under the head of "Asthenopia." If we give the patient for reading, working, etc., at 12 inches, a pair of 17-inch concaves ($\frac{1}{7} - \frac{1}{12} = \frac{1}{17}$), he will for 12 inches have no occasion to use his accommodation at all, but will have a certain useful range of vision both beyond and on this side of 12 inches. I must here distinctly confess that these calculations must all be controlled by actual clinical experience. As far as rules can be laid down, I have endeavoured to do so. These are:—

1. If *little or no* accommodation exists, give a glass which entirely supplants any slight natural accommodation still present.
2. If a *moderate* amount of accommodation exists, give a glass which *partially* supplants this natural accommodation.
3. If *perfect* accommodation exists, the same glass that does for distant will do for near objects.

Is it possible to diagnose a case of myopia altogether independently of any subjective symptoms? It is. Most patients present unusually large eye-balls: this is rendered most obvious when the person looks as far as he can to the side. The great length of the antero-posterior axis (m) and general fulness of the globe then becomes very apparent.

One of the heirlooms of traditional Surgery is the supposed undue prominence of the cornea in myopia. Helmholtz and Donders have distinctly disproved the general truth of this statement by laborious measurements of the cornea by the ophthalmometer. A second set of very diagnostic symptoms are those furnished by the ophthalmoscope. These are (1) the possibility of seeing the inverted image of the fundus oculi without the use of an objective. This of itself is very strong presumptive evidence of (a high degree of) myopia. But to obtain a sufficiently extensive field of view, it is better to employ the ordinary objective—a lower one than is used for normal eyes. A very characteristic appearance is then usually seen. Embracing the optic papilla is a crescentic pale or white patch. It varies greatly in extent, being sometimes very narrow, at others very broad; generally situate between the optic papilla and yellow spot, not unfrequently, however, entirely surrounding the papilla. The retinal vessels coursing over the white patch are seen unusually well by reason of the contrast between their red

(i) The most convenient method of applying this principle is joining a piece of plane tinted glass with Canada balsam to the back of a plano-concave lens. If a double concave lens is simply manufactured out of a piece of tinted glass, the varying thickness of the glass is accompanied with a varying degree of intensity of tint, besides the unpleasant conspicuousness of the depth of color of the extreme margin of the glass.

(k) My opticians, Messrs. Murray and Heath, inform me that they are now constantly in the habit of adopting this plan with the most marked success.

(l) This formula is derived from the formula expressing the relation between the principal (f) and conjugate foci (a and a) of an equi-convex-glass lens. This formula is

$$-\frac{1}{f} = \frac{1}{a} + \frac{1}{a}.$$

In the case before us, $a = p$ and is $< f$ and $a = .r$ and negative. Substituting these values, we get

$$\frac{1}{f} = \frac{1}{A} = \frac{1}{p} - \frac{1}{r},$$

(as in the text).

(m) "Nimia oculi longitudo facit myopiam" (Boerhaave's "Prælect de Morb. Ocul." Gotting. 1746. P. 174.)

colour and the subjacent white ground. The "crescent" or staphyloma posticum, as it is called, is mostly well defined, often very abruptly so, and not uncommonly fringed with a punctated line of black pigment. (n)

Sometimes, however, the crescent merges gradually into the surrounding redness of the fundus, and is in cases of extreme myopia not unfrequently accompanied by other isolated irregular white patches, intermingled with black pigment spots. V. Gräfe considers all these appearances as due to a diffused sclerotico-choroiditis, which, according to Follin, assumes an atrophic tendency in the involved tissues. Those myopic eyes which have been anatomically examined have generally displayed a marked elongation of the globe, especially so in the posterior hemisphere—hence the other name, which has been applied to this peculiar pathological condition, viz., staphyloma posticum.(o) I have met with a few cases of myopia, one the highest degree I ever saw ($\frac{1}{18}$th) in which no such staphyloma existed. In these it is fair to assume the myopia was caused by some abnormal refractive condition of the humour. A third form of myopia, of which I have seen several instances, is one which I, with my friend, Dr. Giraud-Teulon, consider produced by a spastic state of the ciliary muscle. This form of short-sight is generally very slight and has been observed by me principally in patients who were also presbyopic.

(To be continued.)

ORIGINAL COMMUNICATIONS.

POISONING BY PRUSSIC ACID.

By RICHARD GRIFFIN.

A MERCHANT, aged 59, in great pecuniary difficulties, was discovered dead in his bed at seven o'clock in the morning. I found him lying on his left side with his head on the pillow, his right arm outside the bed-clothes, his left under them, one thigh crossed over the other, the body itself being in a semiflex and natural position, the fingers were slightly bent, but not contracted; the toes straight out; the face was cold, but the other parts of the body were warm; the left eyelid was wide open, and the eye had a glistening staring expression, but the right eyelid was closed, owing perhaps, to the pressure of the pillow in which that side of the head was buried, the pupils were in a natural state, neither contracted nor dilated; the jaws were closely compressed, and the tip of the tongue, which protruded between the teeth, was bitten, and about a teaspoonful of bloody frothy mucous was on the pillow beside the mouth, the extent of soiled linen being about an inch and a-half square. The general colour of the body was livid, particularly about the nails. The bedclothes were smooth, which indicated that there had been no struggle prior to death, and, in fact, to a casual observer, the death might very readily have been attributed to natural causes, On separating the lips and smelling of them, I could not detect any scent of prussic acid, but there was a strong smell of it in the chamber utensil. There was no bottle then found, but at the auction some weeks afterwards a bottle labelled "prussic acid" was found in the adjoining room under a mattress, and in the room of the deceased was a small glass cream jug, usually kept in the room where the bottle was discovered, and it is supposed that as he went early in the morning into that room he then poured the prussic acid into the jug, and when he returned into his bed-room drank it, put the cup on the table about six feet from his bed, walked that distance, got into bed and partly covered himself up with the clothes. How the prussic acid got into the chamber utensil is a mystery, unless he spat part of it out, and again put the utensil under the bed, but as it was found on the opposite side to that on which he was lying, he must afterwards have turned over.

At the inquest I was directed to make an examination of the body, which I did at seven hours after having first seen it, and, it is supposed, about nine hours after death. It was then not quite cold, but was stiff, the arms supporting themselves, which they continued to do during the time of the examination, about an hour, showing that the contraction was very firm, otherwise they would have yielded to their own weight; the fingers were but very slightly bent, the body was livid, and when seen four days afterwards was the same, but no signs of putrefaction had then taken place, although it was in the month of July. Nine hours after death the cornea were sunken and flaccid. The face was not bloated or swollen. There had been no discharge of fæces or urine into the bed, but the end of the penis had a glazy mucous on it as if an emission had taken place, but nothing was observed on the clothes.

On making an incision from the neck to the pubis, no blood escaped, but the muscles were of a dark mahogany red. The lungs were contracted, had very little air in them, and did not half fill the chest, showing that a violent expiration was their last effort. The colour was purplish grey; the upper part contained but little blood, but the lower parts had dark venous blood in them. There was no fluid in the chest. The pericardium was greatly distended, and gave rise to the opinion that there was a large quantity of fluid in it, but such was not the case, as there was actually none, the distention arising from an enormously distended right auricle, the right ventricle was also distended; on opening these they were found filled with dark fluid blood. The left auricle also contained some dark fluid blood, but not in large quantity. The heart was large, and of a dark mahogany tint. The liver was large, and of a nutmeg colour, but did not contain much blood. The gall-bladder was full, and of a darkish colour. The spleen was firm, and contained but little blood. The kidneys were of a dark mahogany colour, and contained dark fluid blood in their substance. The stomach, externally, had no unusual appearance, but internally it was of a deep red colour over its entire surface, aud contained about two ounces of blood, which had apparently exuded from the entire mucous surface, as there was no injury to one part more than another, the whole being equally congested. The vessels of the brain were turgid with dark fluid blood.

The stomach was sent to Professor Redwood, of London, for analysis, and he proved the presence of prussic acid. My son, Mr. F. C. G. Griffin, B.A. and Radcliffe Travelling Fellow, Oxford, analysed the contents of the chamber utensil, and found a large quantity of prussic acid. It is just possible that after drinking a portion of the prussic acid he emptied the rest into the utensil, or he might have repented his rash act and spat a part of it out of his mouth. The jury returned a verdict of temporary insanity. Very shortly after this death a photographer of this town, who had become addicted to drink, and was continually getting into trouble, was taken up by the police, and when near the station-house took out of his pocket a pickle-bottle and drank off a portion of its contents. The bottle was dashed from his hands, but he immediately fell dead, and almost without a struggle. The bottle contained a solution of cyanide of potash, but the precise quantity taken is unknown. The coroner did not call to his aid any Medical man, and consequently there was no examination further than a cursory glance of him by myself at the station-house the next day; the face and hands were livid, and there was a frothy mucous escaping from his mouth and nostrils.

Weymouth.

(n) I have notes of fifty-eight myopic eyes which I have examined with the ophthalmoscope. In forty-eight of these eyes staphyloma posticum was present; in twenty-three it is noted as being at that side of the papilla which is towards the macula lutea; in sixteen as going all round the papilla; whilst in the remaining nineteen its precise position is not noted. In ten eyes out of the fifty-eight no staphyloma posticum existed: these eyes presented respectively myopias of $\frac{1}{18}$, $\frac{1}{6}$, three of $\frac{1}{8}$, two of $\frac{1}{10}$, $\frac{1}{12}$, $\frac{1}{14}$, and $\frac{1}{30}$. In addition to the staphyloma posticum, I have in nearly all extreme cases of myopia observed the optic entrance either ill-defined, deformed, atrophied, or hypervascular. The inner tissues of the eye, too, in such cases nearly invariably present an appearance of tension and thinning of the choroid, the vessels of this coat appearing much more numerous and less in calibre than in natural.

(o) The first anatomical description of staphyloma posticum is to be found in Scarpa's Treatise (translated by Briggs), 2nd Edit., p. 399. In one of two dissections he found "there was a deficiency of the nervous expansion of the retina within the cavity of the staphyloma; that the choroid coat was very thin and discoloured at this part, and wanted its usual vascular plexus; and that the sclerotica, particularly at the apex of the staphyloma, was rendered so thin as scarcely to equal the thickness of writing paper." The predisposition to staphyloma posticum in the position it always constantly occupies is probably due to its being that of the protuberantia scleræ fætalis (v. Ammon), where the sclerotic, even at birth, is thinner than elsewhere.

THE CHANCE OF SEEING A LIVE GORILLA IN ENGLAND.—A letter has been received from M. Du Chaillu in which he says—"I have sent a batch of gorillas to the British Museum, and I have also shipped a live one, which I sincerely hope will reach London safely. I had three of them alive a few days before the vessel sailed."

ON AN APPROXIMATE METHOD,

FOUNDED ON OBSERVATION, OF

DETERMINING THE DAILY EXCRETION OF UREA, IN HEALTH AND DISEASE.

BY THE REV. SAMUEL HAUGHTON, M.D., F.R.S.,
Fellow of Trinity College, Dublin.

The researches of chemists and physiologists, in recent times, have demonstrated that all the nitrogen received by the body in food is eliminated by the kidneys, and that the supposition that the skin or lungs contribute, except in very small proportions, to this elimination, is erroneous. This important fact, based upon very accurate experiments, would seem to render more necessary than it is considered usually to be, the determination of the amount of Urea excreted in health and disease.

To find the Urea in a given liquid requires a combination of qualities and circumstances that can only rarely concur in the practical Physician—

1. He must be a good chemist.
2. He must have a chemical laboratory at his disposal.
3. He must have thirty-five minutes to spare on each case, in which he determines the Urea by Liebig's nitrate of mercury process.

These conditions, the coexistence of which in practice is impossible, have prevented practising Physicians in modern times from paying that minute attention to the urine of their patients that was customary in the earliest times of Medicine. In the following Table, which is founded on many observations of urine, both of health and disease, of specific gravities from 1003 to 1028, I have given what I believe will prove a very useful approximation to the daily excretion of Urea, in all cases in which sugar is absent, and albumen either absent or only present in small quantities.

Fluid Ounces.	Specific Gravity.																								
	1003.	1004.	1005.	1006.	1007.	1008.	1009.	1010.	1011.	1012.	1013.	1014.	1015.	1016.	1017.	1018.	1019.	1020.	1021.	1022.	1023.	1024.	1025.	1026.	1027.	1028.
20	35	36	43	57	71	85	100	103	106	119	130	136	142	151	160	196	233	241	249	257	265	274	276	278	279	280
21	37	38	45	59	74	89	105	108	111	124	136	142	149	158	168	205	245	253	261	269	278	288	290	292	292	294
22	38	40	47	62	78	95	110	113	116	130	143	149	156	166	176	215	257	265	274	282	292	301	303	305	306	308
23	40	41	49	65	81	97	115	118	121	136	149	156	163	173	184	225	268	277	286	295	305	315	317	319	320	322
24	42	43	51	68	85	101	120	123	127	142	156	163	170	181	192	235	280	289	299	308	319	329	331	333	334	336
25	43	45	53	71	88	106	125	129	132	147	162	170	177	188	200	245	291	301	311	321	332	342	345	347	348	350
26	45	47	55	73	92	110	130	134	137	153	169	176	184	196	208	254	303	313	324	334	346	356	359	360	362	364
27	47	49	57	76	95	114	135	139	143	159	175	183	191	213	216	264	314	325	336	347	359	369	372	374	376	378
28	48	50	59	79	99	118	140	144	148	165	182	190	198	221	224	274	326	337	349	360	372	383	386	388	390	392
29	50	52	61	82	103	122	145	149	153	171	188	197	205	228	232	284	337	349	361	373	386	397	400	402	404	406
30	52	54	64	85	106	127	150	155	159	177	195	204	213	226	240	294	349	361	374	386	399	411	414	416	418	420
31	54	55	66	87	109	131	155	160	164	182	201	210	220	233	248	303	361	373	386	398	412	425	428	429	432	434
32	55	57	68	90	113	135	160	165	169	188	208	217	227	241	256	313	373	385	398	411	425	438	442	443	446	448
33	57	59	70	93	116	140	165	170	175	194	214	224	234	249	264	323	384	397	411	424	438	452	455	457	460	462
34	58	61	72	96	120	144	170	175	180	200	221	231	241	256	272	333	396	409	423	437	451	466	469	471	474	476
35	60	63	74	99	124	148	175	180	185	206	227	238	248	264	280	343	407	421	436	450	464	479	483	485	488	490
36	61	64	76	102	127	153	180	185	191	212	234	244	255	271	288	352	419	433	448	462	477	493	497	499	502	504
37	63	66	78	105	130	157	185	190	196	218	240	251	262	279	296	362	430	445	461	475	490	507	510	513	516	518
38	65	68	80	108	134	161	190	195	201	224	247	258	269	286	304	372	442	457	473	488	503	520	524	527	530	532
39	67	70	82	111	138	166	195	200	206	230	253	265	276	294	312	382	453	469	486	501	516	534	538	541	544	546
40	69	72	85	114	142	170	200	206	212	236	260	272	284	302	320	392	465	482	498	514	530	548	552	555	558	560
41	71	73	87	116	145	174	205	211	217	241	266	278	291	309	328	401	477	494	510	527	543	562	566	568	571	574
42	74	75	89	119	148	178	210	216	222	247	273	285	298	317	336	411	489	506	523	540	557	575	580	582	585	588
43	75	77	91	122	152	182	215	221	228	253	279	292	305	324	344	421	500	518	535	553	570	589	593	596	599	602
44	76	79	93	125	156	186	220	226	233	259	286	299	312	332	352	431	512	530	548	566	584	603	607	610	613	616
45	78	81	95	128	160	191	225	231	238	265	292	306	319	339	360	441	523	542	561	579	597	616	621	624	627	630
46	80	82	97	130	163	195	230	236	243	271	299	312	326	347	368	450	535	554	573	592	611	630	635	638	641	644
47	82	84	99	133	166	199	235	241	249	277	305	319	333	355	376	460	546	566	586	605	624	644	648	652	655	658
48	84	86	101	136	170	203	240	246	254	283	312	326	340	362	384	470	558	578	598	618	637	657	662	666	669	672
49	85	88	103	139	174	207	245	251	259	289	318	333	347	370	392	480	569	590	611	631	651	671	676	680	683	686
50	87	90	106	142	178	212	250	257	265	295	325	340	355	377	400	490	581	602	623	644	665	685	690	694	697	700
51	88	92	108	144	181	216	255	262	270	301	331	346	362	385	408	499	593	614	635	656	678	699	704	708	710	714
52	90	94	110	147	185	220	260	267	276	307	338	353	369	393	416	509	605	626	648	669	692	712	718	721	724	728
53	92	96	112	150	188	225	265	272	281	313	344	360	376	400	424	519	616	638	660	682	705	726	731	735	738	742
54	94	98	114	153	192	229	270	277	286	319	351	367	383	408	432	529	628	650	673	695	718	740	745	749	752	756
55	95	99	117	156	195	233	275	283	292	325	358	374	390	415	440	539	639	662	685	708	732	753	759	763	766	770
56	96	100	119	159	199	238	280	288	297	331	364	380	397	423	448	548	651	674	698	720	745	767	772	776	780	784
57	98	102	121	162	202	242	285	293	303	337	371	387	404	430	456	558	662	686	710	733	758	781	786	790	794	798
58	100	104	123	165	206	246	290	298	308	343	377	394	411	438	464	568	674	698	723	746	772	794	800	804	808	812
59	102	106	125	168	209	251	295	303	314	349	384	401	418	445	472	578	685	710	735	759	785	808	814	818	822	826
60	104	108	128	171	213	255	300	309	319	355	391	408	426	453	480	588	697	722	748	772	798	822	828	832	836	840
61	106	109	130	173	216	259	305	314	324	360	397	414	433	460	488	597	708	734	760	784	811	836	842	845	850	854
62	108	110	132	176	220	263	310	319	329	366	404	421	440	468	496	607	719	746	772	797	824	849	856	859	864	868
63	109	112	134	179	223	267	315	324	335	372	410	428	447	475	504	617	730	758	785	810	838	863	869	873	878	882
64	110	114	136	182	227	271	320	329	340	378	417	435	454	483	512	627	742	770	797	823	851	877	883	887	892	896
65	112	116	138	185	230	276	325	335	345	384	423	442	461	490	520	637	754	782	810	836	864	890	897	901	906	910
66	114	118	140	187	234	280	330	340	351	390	431	448	468	498	528	646	766	794	822	849	877	904	911	915	920	924
67	115	120	142	190	237	284	335	345	356	396	437	455	475	505	536	656	778	806	835	862	891	918	925	929	934	938
68	116	122	144	193	240	288	340	350	361	402	443	462	482	513	544	666	790	818	847	875	904	931	939	943	948	952
69	118	124	146	196	244	292	345	355	367	408	449	469	489	520	552	676	802	830	860	888	917	945	953	957	962	966
70	120	126	149	199	248	297	350	361	372	414	456	476	497	528	560	686	814	843	872	901	930	959	966	971	976	980
71	121	127	151	201	251	301	355	366	377	419	462	482	504	536	568	695	826	855	884	913	943	973	980	984	990	994
72	122	128	153	204	255	305	360	371	382	425	469	489	511	544	576	705	838	867	896	926	956	986	994	998	1004	1008
73	124	130	155	207	258	310	365	376	388	431	475	496	518	551	584	715	849	879	909	939	969	1000	1007	1012	1018	1022
74	126	132	157	210	262	314	370	381	393	437	482	503	525	558	592	725	861	891	921	951	982	1014	1021	1026	1032	1036
75	128	134	159	213	266	318	375	386	398	443	488	510	532	566	600	735	872	903	934	964	995	1027	1035	1040	1046	1050
76	130	136	161	216	269	323	380	391	404	449	495	516	539	573	608	745	884	915	946	977	1008	1041	1049	1054	1060	1064
77	132	138	163	219	273	327	385	396	409	455	501	523	546	581	616	755	895	927	959	989	1021	1055	1062	1068	1074	1078
78	134	140	165	222	276	331	390	401	414	461	508	530	553	588	624	765	907	939	971	1002	1034	1068	1076	1082	1088	1092
79	136	142	167	225	280	336	395	406	420	467	514	537	560	596	632	775	918	941	984	1015	1047	1082	1090	1096	1102	1106
80	139	144	170	228	284	340	400	412	425	473	521	544	568	604	640	785	930	964	996	1028	1060	1096	1104	1110	1116	1120
	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028

The Table is one of double entry, to be used by finding the daily excretion of urine in fluid ounces, and its specific gravity, by means of a carefully graduated urinometer. When these data are found, at the intersection of the corresponding columns is given the excretion of urea in grains. I submit it with confidence to the test of practical experience, as I have so often used it myself in fever, in pneumonia, in dyspepsia, and in kidney diseases, that I believe it will be found a valuable aid to the Physician, both in the prognosis and in the treatment of these and other diseases.

INDUCTION OF LABOUR BY DR. BARNES'S DILATING BAGS—ARTIFICIAL DELIVERY—SUCCESSFUL RESULT.

By WM. ELLIOTT PORTER.

During the summer I was engaged to attend Mrs. ——— in her fourth confinement. She is a short, thick-set woman, aged 34. Her first child was born naturally, alive, after a very tedious labour. The second was alive also, delivered

with diffieulty by the long forceps after the head had been at the brim of the pelvis several hours. This was my first attendance on her. In the third pregnancy I recommended the induction of labour at the thirty-fourth or thirty-sixth week; but the patient would not submit to it, and she went her full time. I delivered her under chloroform by turning, after having failed with the long forceps. This child was dead.

I would here observe that in a case I attended with a Professional friend a few weeks ago we succeeded in delivering by turning, after having been unsuccessful with the long forceps. This child we lost also. In the fourth pregnancy I again proposed premature delivery; and it was consented to.

I obtained a set of three sizes of Dr. Barnes's bags: each had a stopcock and tube at one end, and on one side of the other end a finger socket. In consequence of the os uteri at this period of pregnancy being very high, I thought an introducer of some kind would be useful. I, therefore, had one made of a piece of lancewood; it was about as long and curved like a sound for the bladder. A sound would do; but wood looks less formidable than steel. I found, though not essential, it very much facilitated the introduction of the bags into the os uteri.

On August 30, at 2 p.m., I commenced by persuading one finger into the mouth of the womb. I then lubricated the smallest bag, and put the beak of the introducer into the finger socket, and laid the bag along the convexity of the introducer, where it was retained in its position by making slight traction on the tube. Thus it was passed along the palmar surface of the fore and middle fingers of the left hand, which were in contact with the os uteri, and with great ease into the uterus as far as was required. At 2.15 the first distinct expulsive effort took place, and shortly afterwards the bag was expelled; the second was then introduced, and came away about 3.15. The pains were now frequent. I waited, perhaps, half an hour, when they flagged a little. About 4 o'clock I introduced the third bag, which was not retained many minutes. The os was at this time as large as a crown piece, and the pains were quite established They increased in strength till 7 o'clock, when dilatation being complete and the membranes protruding, I ruptured them. The head came to the inlet, and there remained. The pains were most severe and frequent for more than an hour; no progress was made; and the patient was getting exhausted. I gave chloroform, and delivered easily by the long forceps at 8.30. Child alive.

The recovery was unchecked. Both mother and child are at this date (September 30) quite well.

The case above recorded affords additional evidence of the effectiveness of Dr. Barnes's dilating bags; and the Profession are, I think, much indebted to him for a very simple and safe means of inducing labour. It also instances the advantage of turning over the long forceps: not that I for a moment repudiate the long forceps. I think where there is a possibility of delivering by them they should be used, because they give the child a greater chance of life than turning does, and are more easily applied than the child turned when the membranes are ruptured and the uterus in strong action.

Lindfield, Sussex.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

ANEURISM OF THE DESCENDING AORTA — PLEURO-PNEUMONIA — SYMPTOMS RESEMBLING PHTHISIS—RUPTURE INTO THE LUNGS —CLINICAL REMARKS.

(Under the care of Dr. HABERSHON.)

During the earlier months of illness in this case there was great obscurity in the symptoms; they closely resembled those of early phthisis. There was evidently subacute change in the whole of the left lung, and this was probably induced by pressure upon the pneumo-gastric nerve; but there was no bruit with the heart, and no evidence of aortic disease; no alteration of pulse, and no paroxysmal dyspnœa; no severe pain; nothing, in fact, to show that there was disease of the aorta, until a pulsating tumour slowly formed in the scapular region. The whole character of the disease was then explained, and the probability of rupture into the bronchi or œsophagus was realised. The situation of the aneurism was below the level of the large vessels and structures at the upper part of the chest, and the whole history tended to show how many of the symptoms of aneurismal disease are due to pressure on adjoining structures. This sac was below the subclavian; the œsophagus and thoracic duct escaped, so also the left bronchus. The absence of pain in the back, although the bodies of the vertebræ were very extensively absorbed, was very marked; and this is another illustration of the fact that the agonising pain sometimes observed does not arise from mere absorption of the bodies of the vertebræ. The case further illustrates another observation of Dr. Stokes, that in thoracic aneurism the heart itself is often free from disease.

Thomas C., aged 40, a cabinet maker, was admitted into Guy's Hospital July 20, 1864. For five months he had suffered from pain in the side and cough, and the symptoms at first closely resembled phthisis. The resonance at the left apex was imperfect, the expiratory murmur was prolonged, and there was in some parts bronchial breathing, the voice also was increased in resonance. There was also dulness and defective respiration at the base of the left lung, marked friction sound was heard, and there was mucous crepitation. At the beginning of September, when Dr. Habershon took charge of this patient such were his symptoms, and on examining the scapular region on the left side below the fourth dorsal vertebra, and in a line with the termination of the spine of the scapula was a pulsating tumour about two inches in diameter; no bruît could then be heard in it, but beneath, the friction sound before referred to. The heart sounds were feeble, and no bruît could be heard in the region of the heart, nor in the course of the aorta; the pulse was soft, compressible, and rather irritable. He had never suffered from hæmoptysis, and the expectoration was small in quantity, and of a mucous character. He had had severe pain in the back and between the shoulders. He was pale and emaciated, and the countenance was distressed. The dyspnœa was slight, and he could recline with ease on his back. At first he had had dysphagia in moderate degree, but that had quite ceased. As to negative signs, there was no hoarseness, no difference in the pupils, the pulse was equal in both radial arteries. The pain in the back had greatly diminished, and there was no tenderness on percussing over the spinous processes.

On September 9 the cough was distressing to him, and conium mixture (Guy's Ph.), with compound tincture of camphor, was ordered, and $\frac{1}{3}$ gr. of morphia at night.

On the 13th there was imperfect resonance on percussion on the whole of the left side, submucous crepitation at the left apex, crepitation also at the base of the left lung; increased resonance of voice, but no alteration in tactile vibration. The patient could lie down without distress; the expectoration was muco-purulent.

On the 24th the tumour was larger, and less air entered the left lung.

27th.—He was tolerably easy; had slight pain in the left side, but none down the arm; the voice was hoarse; the tumour in the left scapular region extended to the spine, and had become as large as a man's fist; the pulsation in it could be distinctly felt, and on listening closely a distant diastolic bruit could be heard; immediately beneath the tumour the friction sound had become more distinct. The spine was free from tenderness, but the spinous processes at the site of the aneurismal tumour were slightly depressed. The cough and other symptoms were as before; so also on the 30th. The tumour was larger, but the patient was easy and free from urgent dyspnœa or distressing pain.

On October 3 a small quantity of blood was expectorated in the morning, but he passed the day in his usual state. About 5 p.m. sudden gushes of blood took place from the mouth, and in ten minutes life had ceased.

Inspection was made on the following day. The head was not examined. Chest—The left pleura was universally adherent, and the left lung was firmly fixed to a large false aneurismal sac occupying the upper half of the left side of the chest. The bronchi were filled with blood, and in some parts the lung was fleshy and dense, but the state of the bronchial tubes and lungs before the fatal extravasation had taken place could not be satisfactorily made out on account of the injection of blood into them. The apex of the right lung was puckered; it was otherwise normal. The heart was small, the valves were healthy. The aorta was roughened; about an inch and a-half below the left subclavian was an opening an inch in extent extending into the aneurismal sac; and from

the coat of the diseased vessel there was an opening through which a probe could be passed into the lung. There were also several small patches about a quarter of an inch in length where the lining membrane was destroyed. The sac was bounded by the lung in front, and by the partially absorbed heads of the ribs to the outer and back part; the bodies of the vertebræ formed the inner boundary posteriorly; they were extensively absorbed from the fourth to the eighth, and the spinal canal nearly perforated. The inter-vertebral substances projected irregularly. There was very little fibrin in the sac. The pneumogastric was removed with the lung, and the amount of compression could not be made out.

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Medical Times and Gazette.

SATURDAY, OCTOBER 22.

EXTENSION OF UNIVERSITY EDUCATION(a).

A short pamphlet, entitled "Education for Frugal Men at the University of Oxford," and written by the Rev. D. P. Chase, the present Principal of St. Mary's Hall, made its appearance a few days ago. It will be read far and wide by all who feel an interest in academical education, but will be especially welcome to that large class to whom such an education (at Oxford, at least,) is supposed to be inaccessible, —we mean the sons of parents whose incomes are too narrow for the present scale of expenditure prevailing among the undergraduates. To such, the information contained in this pamphlet will prove good news. We say "news," for we suspect it is by no means generally known what a door has been opened within the last few years through which an Oxford education has been made accessible to students even of very small means.

In 1846, when the subject of the extension of University education was being actively mooted, it was felt at once that at Oxford one of the chief barriers to such extension lay in the scale of expenditure in great measure necessitated among the junior members. This high scale of expenditure, so far as it was due to their own want of frugality, was of course unavoidable; but still, however much a student might curtail his private expenses, he could not reduce his College expenses below a certain sum. By College expenses we mean the annual cost of board, lodging, and tuition, exclusive of University dues and the heavy outlay at starting of £30 for caution money, and another £20 or £30 for room-furniture. These items, even at their *minimum*, necessitated the possession of a certain sum of money, and that more than students of very limited means could command. The whole subject was carefully investigated by those most conversant with Oxford, and heads of houses were urged to the adoption of certain simple measures which would have done much towards placing the advantages of an Oxford education more within the reach of poor students, and this without involving any troublesome or radical changes in the existing collegiate arrangements.

Many years, however, elapsed before any material advance was made in this direction. Even up to the present the University itself has not stirred a step. Year after year it continues to spend a large income in the furtherance of various objects; some of them of by no means undisputed utility; but towards aiding poor students, by cheapening the cost of the academical career, it has done nothing. The Colleges, too, have done little, shamefully little, considering the extent of their incomes and endowments. Some Colleges, it is true, are much cheaper than others; but even at the cheapest the necessary expenses are still too high for young men whose parents can spare them at most (say) £100 a-year. In fact, the only systematic attempts to promote the extension of University education, *by adapting the existing Collegiate tariff to the needs of this class of students*, have been made at two of the Halls—St. Mary's and St. Alban's—by their respective Principals. What they have attempted, and with what results, the pamphlet above mentioned very modestly states.

The Rev. D. P. Chase, ever since his succession to the Principalship of St. Mary's Hall, has placed twenty out of its thirty sets of rooms at the disposal of "gentlemen willing to adopt a strictly frugal scale of expenses." The entrance fee to the Hall is fixed at £5. An annual payment of £75, or, should the student prefer ready-furnished rooms, of £80, covers all expenses, except for coals, candles, and washing. Payment of one-third of this down at the commencement of each term (reckoning Easter and October Terms as one) renders deposit of caution money unnecessary: otherwise £30 has to be deposited as caution money before the commencement of residence, to be afterwards returned to the student by instalments. The Hall fees for the B.A. and M.A. degrees are fixed at £5 and £4 respectively. All meals are taken in common, and beyond this no restriction is imposed; but any member who is known to incur expenses inconsistent with the terms of his admission is subjected to the higher rates paid by other members, or else requested to withdraw his name from the books of the Hall.

Such is a rough sketch of the "frugal system" which has been in operation at this Hall for the last six years. Let us now see with what results. Briefly these: it has proved a complete success. It has brought the whole expense of the B.A. degree, in the case of the "fairly prudent and diligent" student, within £300; it has thus rendered an Oxford education accessible to many who would otherwise have obtained it either not at all or else at a painful pecuniary sacrifice to their parents; and it continues to offer these advantages to the utmost extent the existing accommodation and means of the Hall will permit. We must not omit to mention that this Hall offers certain scholarships and exhibitions, varying in value from £30 to £50 a-year, and that the payment for tuition—£20 a-year—is occasionally remitted by the Principal in the case of poor and deserving students (though hitherto not to more than two at a time); so that the holder of any one of these benefactions, of course, gets his B.A. degree by so much less than the estimated cost—£300.

At St. Alban's Hall also the "frugal system" has been in operation for several years past, and with the same good results. Details of it are not given in this pamphlet further than that the present Principal (the Rev. W. C. Salter) "has resolved to include all the necessary charges under a fixed quarterly payment of fifteen guineas; allowing, however, a slight margin for certain accidental expenses which might or might not be incurred, according to the habits and circumstances of each member."

To realise the fulness of the boon which the Principals of these two Halls are conferring upon the sons of parents with narrow incomes, it must be borne in mind that at any ordinary College the B. A. degree, after all expenses are paid, is very rarely obtained under £500 at the lowest (supposing, of course,

(a) "Education for Frugal Men at the University of Oxford. An Account of the Experiments at St. Mary's and St. Alban's Halls by the Principals of those Halls." Pp. 24. Price 1s. Oxford and London: J. H. and J. Parker; Bristol: Chilcott. 1864.

the student to have no assistance in the way of a scholarship or exhibition). And it will never be forgotten that the initiative in this great matter of increasing the accessibility of an academical education has been taken, not by the Colleges with their more or less wealthy endowments and ample incomes, but by two Halls having no endowments at all, and no income beyond that arising from their students' payments. Surely the Colleges for very shame must follow their example, and begin to forego at least a share of their present monopoly. For, after all, it is this monopoly of the Colleges which, *by enforcing an expensive residence within their walls*, shuts poor men out from Oxford—and this in the teeth of the express intention of its various founders and benefactors that poverty should constitute a claim rather than a disqualification to participate in their bounty. Our Universities are the property of the nation, and not of any one privileged class; why, then, are their advantages to be restricted to the upper ten thousand, who can afford to buy them at "College prices?"

We have noticed Mr. Chase's pamphlet at some length, because the cheapening of University education is a matter which deeply concerns the Medical Profession, and the praiseworthy advances which are being made in this direction by himself and Mr. Salter deserve on our part a public and grateful acknowledgment.

RECRUITING FOR THE ARMY MEDICAL DEPARTMENT.

THE *Dublin Medical Press* sees a good deal to attract in the army. There are only two phases, it says, in which the question can be viewed—the commercial and the dignified. The latter aspect is very unsatisfactory truly, but the editor is content to put his dignity in one of his pockets if he can have the "siller" in the other.

"It stands admitted that, *commercially speaking* (the italics are not ours), the army is altogether the most advantageous opening for a young Surgeon." Really, we were not aware of it; at any rate, a letter from a Medical officer of experience (which we publish elsewhere) does not adopt this hopeful view. We had imagined that the prospects for Assistant-Surgeons were rather dreary at present. There are nearly 700 Assistant-Surgeons, and the promotions have been some 20 say, per annum, for some years past. The arithmetic is very simple. We may say broadly that, *commercially speaking*, the army will not do for Surgeons bred on this side of St. George's Channel. It is quite as true that few young men can earn at once ten shillings a-day as it is that there are few men who, after ten or twelve years spent in private practice, cannot earn a great deal more—that is, if they are worth anything at all. It is well known that, after the promulgation of the Royal Warrant of 1858, a larger number of a thoroughly good class of students from all the schools made their appearance at the examinations than had ever been the case before. As far as London and Edinburgh are concerned, it is not impossible, if the present state of things continue, that the Army Medical Department may in time come to be composed of one nationality. There are, however, some grievances—under the dignity phase—which are patent to our Dublin friend. Now we state it as the result of our knowledge of the service, that with no class of men is the army more unpopular than with those Irish Surgeons who have served for any length of time. The men turned out from the Irish schools are equal to any in the world; but we do not believe that the service gets the better class of these, as it confessedly does not from our schools. Rightly or wrongly, we declare the opinion expressed to us by all classes of officers when we say—that so long as the authorities can obtain any men they will be content to let things remain as they are. Under a heading of "How to obtain Appointments in the Public Services," we read: "He is then gazetted to his regiment, and enjoys *all* the rank and honour, pay and privileges of an Assistant-Surgeon, as provided by the Regulations." This *all* did not appear to satisfy Staff Assistant-Surgeons Dewar and Sandison, who have resigned their commissions, as we read on another page of the *Dublin Medical Press*.

We defy the Horse Guards to prove that any other branch of the army has surpassed the devotion, bravery, and noble sense of duty displayed by the Medical officers of late. The *Gazette* and the obituary sufficiently declare their exposure to all the dangers of war and pestilence. Why, then, are they not all treated alike?

THE WEEK.

THE SCHOOLS.

THE entries of students at the London Hospitals is lower this year than in either 1863 or 1864. According to the list on Monday last, 302 new students had been registered, 325 second year men, and 353 third year. Guy's still stands at the head of the list, next comes St. Bartholomew's, then University College, then King's College. The highest number entered at one School is 77, the lowest, at two Hospitals, 9.

LONDON WATER.

MR. LIDDLE, the zealous and experienced Medical Officer of Health for Whitechapel, read a paper on Saturday last before the Association of Medical Officers of Health on the supply of water to the poorer parts of the metropolis. The subject is one of immense importance; and it appears to us clearly to be the duty of the Legislature not to allow tenements within the metropolitan area to be used as human habitations unless they be provided with water enough for health and cleanliness.

THE PATHOLOGICAL SOCIETY.

THE last session of the Pathological Society was one of the most prosperous, in every sense, in the annals of the Society. Not only were the specimens exhibited numerous and of great interest, but the number of members was much increased. On Tuesday last, the first meeting of this session, the attendance was unusually large even for a first meeting, and, as will be seen by our report, the work done was of the best. The President, towards the close of the meeting, brought forward a large batch of applications for membership, so that the Society is still gaining ground in numbers. In his introductory remarks, the President apologised for the delay of the volume of *Transactions*. The delay was owing to the sudden illness of the printer. When it does come, the members will, if we may judge by the work the book represents, find it a valuable acquisition. The present makes the fifteenth volume, and now that a general index to it and the preceding volumes is in the printer's hands, the value of their records will be much increased. The index has been made by Mr. Holmes, one of the honorary secretaries. The Society is fortunate in being able to secure the services of so able a Surgeon for such a work. Index making, especially on Medical and Surgical subjects, is not mere drudgery, but requires much knowledge and tact to avoid cumbersomeness from repetition, or inutility from meagreness.

REFUSAL TO FURNISH A DEATH CERTIFICATE.

A CASE brought under the notice of Mr. Partridge at the Thames Police Court on Saturday, October 15, proves that a Medical man is not bound by law to give a certificate of death for nothing if he choose to demand a fee for it:—

"Sophia Robinson, of No. 25, Strathmore-terrace, Back-road, Shadwell, made an application to Mr. Partridge for redress. Her husband died last Monday. He was attended in his last illness by Mr. Hawkins, Surgeon, of Colet-place, Commercial-road, to whom she applied for a certificate of the cause of death, without which he could not be buried. Mr. Hawkins refused to give her a certificate unless she paid him 6s. She was unable to raise the money, and the

undertaker she had engaged would not remove the body from the house where it was lying without a Medical certificate.

"Mr. Partridge directed Daniel Smith, an officer of the Court, No. 412 K, to wait upon Mr. Hawkins, and upon his return he reported that Mr. Hawkins peremptorily declined granting any certificate until he was paid 6s., and said that the law did not compel him to do so. If the woman was anxious to bury the body of her husband she had better apply to the parish. He explained to the Surgeon that the widow did not want to put the parish to any expense, and that the parish officers could not bury the body without a certificate. Mr. Hawkins, on hearing this, said, 'Let him lie where he is.' He asked if that was the message he was to take back to the magistrate, and he said, 'Yes, it is.'

"Mr. Partridge said he could not compel the Surgeon to give a certificate. He was very sorry for the poor widow. He could not help her. He was very sorry that such conduct had been pursued towards her, and he hoped her application and the report of the officer would be made public."

With regard to this, all we can say is that we have not Mr. Hawkins's explanation of his conduct; it appears harsh and cruel, but as the woman did not choose her husband to be buried "*in formâ pauperis*," we do not know on what ground she could expect the Surgeon to do his part out of "charity;" and he *may* have had good reasons for believing that she could pay his fee if she chose.

PSYCHOLOGICAL MEDICINE AT THE ANTIPODES.

The letter of the Melbourne correspondent of *The Times* contains an account of a late occurrence in that colony which, like one of poor Robson's personifications, jumbles together the ludicrous and the horrible in a most piquant, if not edifying admixture. We must make allowance for the necessities of sensation writing, as we can hardly believe that the philanthropic indiscretion of the worthy Professor of Anatomy at Melbourne would have led him into such a deplorable *fiasco* both in law and psychology. However, we reproduce *The Times'* correspondent's account, merely observing that even if it be not over-coloured, all who know Professor Halford will be convinced that his conduct was instigated by a genuine though ill-judging humanity, and by a firm, if mistaken, belief in the entire validity of the theory of homicidal insanity. At the same time it must be remembered that the records of every lunatic asylum prove that the most marked insanity may exist and no appreciable lesion of the brain be found after death.

"Since the departure of the last mail another commotion has passed off, which for many days tried the firmness of the Government. I informed you in my last letter that three convicts were lying in gaol under sentence of death—two for shooting with intent to kill while trying to rob a bank in open day, and the third for shooting his partner dead while, in the presence of several friends, they were disputing over their accounts. So cool, remorseless, and even exultant over his act did the murderer seem that some one started the idea that he must be insane. The defence of insanity, however, was not set up at his trial, and, therefore, of course he was convicted. Vain, proud, self-willed, and utterly unaccustomed to control himself, such a catastrophe, it was said by those who knew him best, had only not occurred before because people had generally given way to the man's arrogance and self-assertion. That one man should shoot another, however, in cold blood, outside the Public Works Office, and surrounded by a group of friends; that the assassin, too, should have concealed the pistol about his person for the purpose, could only be the result — in the opinions of certain Doctors—of 'moral insanity,' 'moral exaltation,' or 'emotional insanity,' for thus variously and hazily was the alleged mental condition described. Most certainly (as was admitted by all) delusion there was none. The son of the prisoner assisted the movement by asserting—whether truly or not no one could learn—that there was insanity in the family in England. The Government appointed a commission of three of the most eminent Medical men in the colony to examine the prisoner. They, after various long conversations with himself as well as with his son and others who knew his previous conduct and character, pronounced him perfectly sane, and the law was left by the Governor and the Executive Council to take its course. Forthwith arose a perfect storm of remonstrant meetings, and of letters to newspapers from numbers of Medical men, who advertised both themselves and their reading by liberal draughts on Forbes Winslow, and other psychological writers, while urging the prisoner's claims to mercy. The Ministry were solicited individually and collectively. Being inexorable, they were denounced as a 'red-handed' Ministry, as being determined on committing an atrocious crime, as being about to become murderers themselves. The most demonstrative of these agitators was Professor Halford, the occupant of the anatomy chair at the Melbourne University. In return for his speculations on the state of the prisoner, the latter on the scaffold bequeathed his body to the Professor. The Professor, having expressed himself in common with other Medical men to the effect that extensive lesion of the brain would, on a post-mortem examination, certainly be disclosed, watched the gaol authorities, got access to the prisoner's body after execution, and made off with his head to the University rooms. The goal Surgeons were in consternation, and appealed to the Sheriff. The Sheriff appealed to the Attorney-General and the Minister of Justice. Law and justice were for a moment at fault, for larceny, or trover, or detinue for brains (so perishable an article) was rather a ridiculous and embarrassing subject for a Government prosecution. At length it was determined that the Sheriff, accompanied by a justice of peace and by a policeman, should proceed forthwith to the University, and demand the brains. On arrival of the formidable Sheriff, 6 ft. 4 in. in height, at Professor Halford's rooms, the Professor was found surrounded by Medical men and with the brain before him, the dissection then proceeding. The Sheriff, backed by the justice of the peace, the policeman, and the gaol Surgeons, demanded the public property. Professor Halford asserted that the brains were his by bequest of their former owner. The Sheriff contended, with much force, that the brains were 'the Government's brains,' and that a convict on the scaffold had no property, even in his own brains, to bequeath to any one. The Sheriff's law seemed to stagger the Professor, who began to treat. Finally, the gaol Surgeons being present, it was arranged that the dissection should proceed, and at the end the brain was pronounced perfectly healthy. The Professor received a reprimand from the Council of the University, and so the foolish business closed. It may be remarked that had this convict been spared, he would, under the operation of an Act of Council here, have been entitled of right to his liberty on any two duly qualified Medical men testifying to his sanity. Such a certificate could have been obtained from almost any two Medical men in the colony, in which case we should soon have been startled by the spectacle of a man quietly walking about the streets, who only a few weeks before had shot a fellow creature with less concern than most men would exhibit in shooting a dog. And so much for weakly sympathising, not very wise, and certainly very short-sighted people constituting themselves moral courts of error over the tribunals and the executive councils of a country, which at any rate act under a solemn responsibility not influencing the officious volunteers who, in all parts of the world, are ever so ready to interpose their infallibity between the law and its execution."

FROM ABROAD.—EFFECTS OF DISPERSION ON EPIDEMICS OF TYPHUS—A FRENCH ACCOUNT OF ENGLISH HOSPITAL PHYSICIANS—EXPECTATION IN PNEUMONIA.

The terrible Circassian exodus has offered another remarkable example of the efficacy of dissemination of patients in the arrest of epidemics. More than a third of the 300,000 emigrants from Russian despotism are calculated to have perished. In all the central spots of the shores of the Black Sea, where these wretched beings congregated in the most deplorable sanitary condition, destitute of everything, and decimated by small-pox and typhus, their dispersion was attended with the happiest effects. At Trebizond, Samsoun, Sinopa, and Varna, especially, where they were being swept off like flies, the epidemics were at once arrested by camping them out in a scattered manner in tents, booths, and sheds well exposed to the air in suitable localities—a successful result, which could not have been obtained in large Hospitals, however well appointed. All the merit of this procedure is due to Dr. Barozzi, the Sanitary Commissioner sent by the Porte. By means of his energy, indefatigable activity, and exemplary

devotion, he was enabled to triumph over the inertia and selfishness of those whose duty it was to second his efforts. Difficulties which were apparently invincible only led him to redouble his zeal and efforts. He multiplied himself, as it were, so as to be at every spot when needed, sparing no efforts to embark the emigrants on ships and boats at Trebizond, the chief seat of the epidemic, and elsewhere, so as to secure as rapid dispersion of the sick as possible. He inspired confidence and admiration on every side, and the French Government has done honour to itself, while appreciating his services, by bestowing upon him the decoration of the Legion of Honour.

M. Lecorché in the *Union Médicale* is publishing some articles upon the London Hospitals, which, although fair enough in their scope and intention, contain some statements that will not a little surprise our readers. Thus we read that owing to the absence of the *concours* for appointments to the Hospitals, our young Medical officers, pursuing the bent of their inclination, select limited portions of pathology for illustration, and thus give rise to that infinity of specialties which the writer declares to be characteristic of this country. "Even among the honorary consulting Medical officers attached to the large Hospitals, scarcely any others than specialists are to be found: one confining his attention to diseases of the heart, another to those of the liver, and a third to gout. Few, indeed, are there in the Hospitals of Physicians in the full acceptation of the term, treating all diseases indifferently." While admiring the absolute power placed in the hands of the Medical officer of prescribing whatever he thinks proper in the way of food or drink without having to consult any Hospital superintendent, a power largely availed of, he tells us that we are, on the other hand, subjected to a species of surveillance unknown in France. "The governors, in fact, constantly exercise this. There is in every Hospital what is called a House Committee, which may visit the different wards at any hour, and which inquires of the sisters and of the patients themselves as to the manner in which the service is conducted, and on receiving complaints may summon any of the Surgeons or Physicians before the weekly board, in order to furnish the necessary explanation." The following passage indicates that the posts of Assistant-Physicians and Surgeons are more profitable than they usually get the credit of being:—"These posts are much sought after, for they are not merely honorary. Their emoluments are indeed sometimes more considerable than those which accrue from the appointments of Physician and Surgeon, which is easily understood when the enormous loss of time they entail is considered. Moreover, those who hold them may deliver lectures in the Hospital Medical School, which are always attended with more or less profit."

At the Paris Academy of Medicine, M. Blache read a report on M. Barthez' memoir on the treatment of the pneumonia of children by expectation. M. Barthez draws his conclusions from the consideration of 212 cases of simple pneumonia occurring in children from 2 to 15 years of age, which came under his care at the St. Eugénie Hospital during a period of seven years. Of these only two terminated fatally, and these were examples of double pneumonia. In nearly one-half of these cases no treatment was employed, while in a great many others it was insignificant. In scarcely one-sixth was it active. The total duration of the affection has been found to oscillate between ten and fifteen days, when the disease was left to itself, while it lasted a little longer when active treatment was employed. Under expectative treatment the convalescence lasted from five to ten days, while it was prolonged after active treatment. The general conclusion he arrived at was that simple pneumonia has a general tendency to terminate favourably in children, and that the indication is best fulfilled by good hygiene and expectation. M. Blache, the Reporter, while agreeing with this view as a general statement, by no means considers that the treatment of pneumonia by bleeding should be abandoned in all cases. On the contrary, he believes that daily experience exhibits the value of bleeding in the early stage, and that combined with tartar emetic it constitutes a means of treatment that can be graduated and appropriated to all cases with great success. Expectation is certainly indicated in some cases, and in children far more than in adults, but it would be dangerous to generalise its employment even among these young subjects. These views are those also held by M. Grisolle in his important monograph on pneumonia. M. Bouvier protested against too hasty generalisations upon this subject. The patients whose treatment is described by M. Barthez were all Hospital patients, whose constitutions are debilitated from various causes, so that they will not bear the active treatment which may be suitable for patients met with in private practice.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF LINCOLN.

The old city of Lincoln, if it present not, to the purely Medical reader, so many features of practical interest as Birmingham, Wolverhampton, or the Potteries, has one point of great historical value in its favour; in fact, it is probable there is no town or city in this kingdom in which, during the present century, so important an event has taken place in the treatment of one form of disease as in Lincoln. I allude to the introduction, into one of the Charities of the city, of that system of the treatment of the insane, known as the system of non-restraint. I, for one, feel that, excepting the discovery of Jenner, no such advance has been made in practical scientific Medicine as this non-restraint method, the very greatness of and simplicity of which almost enshrouds its meaning and reality. In traversing our modern asylums with the young, I have found it difficult to make them understand what the improvement, that within one generation has been effected, is at all like. It hardly appears possibly true to the mind charged with the sentiments of to-day, and with so much more of that perfect love which casteth out fear, that there has ever been a time when every insane person who may be met in the corridor, the play-room, or the walking-ground of the asylum, might once have been seen, in the period of current memory, a miserable, manacled, tortured specimen of humanity—a specimen such as the gaol would not now present, and lodged in a prison, over which even the modern workhouse offers numerous advantages. And yet all this is true, and the picture of the past cannot be forgotten in the picture of the present by those whose recollections can carry them back some poor quarter century: neither should it, nor shall it, be forgotten that here, in Lincoln, the great reform which has made the two pictures so definite quietly occurred—a reform which marked an entire revolution in Psychological Medicine; a reform which the man who led it, and who, I think, I might almost say completed it, has lived to see carried out to this day without reserve and in all parts of the world. More of this subject in the sequel, and in due time and place: I have touched on it thus early to recall the fact that Lincoln has a Medical claim worthy of consideration; like Schlegel's historical prophet, with his head turned backwards, I see the Medical scholar of a century hence climbing the steep hill that leads to the City Asylum to visit the place as a spot that must be seen, like the birthplace of Shakespeare, or the Egyptian tomb in the Holy Island whence Osiris rose again.

The City of Lincoln itself claims great antiquity; its name seems to have been changed many times. The ancient inhabitants—shall we call them the savages?—of this island are said to have called it Lindcoit. Ptolemy and Antoninus called it Lindum, and so, indeed, it seems to have been designated during the whole of the Roman occupation. When the Saxons became masters, the name again changed into Lindo-Collyne or Lyndo-Cyllaneeaster. When, again, the

Saxon and Dane ceased to tug together, and the Norman bow was the governing weapon of England, the name was once more revised, and the place was called Nichol; finally, by a transmutation of terms, in which the Saxon, or rather Anglo-Saxon, element prevailed, as was so common after the Norman rule was established and the races began to amalgamate, the word Lyncolyne, subsequently—Lyncoln—Lincoln was used, which name, differing in spelling rather than in sound, has continued to be employed until our time. The term is said originally to indicate a colony or settlement on a hill.

The first habitations were built, probably, irregularly; and on the upper part of the hill on which now stands the more regular and commanding city. In the time of the Romans the place had taken the shape of a square. There was a southern wall, which was undefended, except by a precipitous descent leading to a wide heath; and there were three other walls, which were surrounded by a deep moat or trench. Across the city ran two streets at right angles the one to the other, and there were four gates. One of these gates—the Newport Gate, forming the northern entrance—still remains, and is always an object of mark for the antiquarian.

The city, thus marked off in four divisions and fortified, became a centre of great magnificence and usefulness to the Roman Government. It was a place easy of access, and its commanding position gave to it vast military importance. From it could be seen, when the skies were clear, that wonderful monument of Roman entrenchment known as Burrow Hill, in the county of Leicester—a hill on which the antiquarian lingers with so much wonder and speculative delight, and which to the Medical world is of note as surmounting the birthplace of one of our most eminent English Surgeons, the famous Cheselden.

The withdrawal of the Roman power from the island left Lincoln in the disturbed possession of the original inhabitants, who, now unaccustomed to the use of arms and the exercise of power, were long engaged in defending, with varying success, their native city. They had one bold leader, Vortigern, who led them often to victory, and who left them a son equally brave, Vortimer, who held his own until his death in 454. Then, and until the reign of Arthur, the Saxon element prevailed, and Lincoln was a Saxon town. Restored to its liberty by Arthur, it fell once more on the assassination of that prince, and became, not only Saxon, but the capital of the Saxon kingdom of Mercia.

During this period the rude constructive skill of the Saxon architect was employed to destroy much of the previous beauty of the city, and to introduce into it those heavy and graceless innovations which mark, like a language written in stone, the conquests of one section of our ancestral tree. Some atonement, nevertheless, is due to Saxon rule in Lincoln during this eventful period; for in the reign of one of the kings of Mercia, Penda by name, there came from the north Paulinus, a Christian missionary, who converted Blecca, the governor, and added so many converts more to his banner that at last he was enabled to build a church, from which church sprang in a later day that "glory of Lincoln" the cathedral, nearly as we have it still. Wars with the Danes, wars with the elements, distracted the good city for many centuries, and in course of time it came under the rule of Canute, a wise man, bold, truthful, and earnest. At last descended Norman William to settle everything by his iron will, a man whose mission at the first glance looks cruel, ferocious, false, and terrible, but who in reality, in the broad lesson of history, came to make England what she has been and is, "Great Britain;" came to break down the discordant elements that everywhere prevailed; to settle for a time, by an organised feudalism, a fixed Government having so many centres in Federal bond that it could rule long enough to be useful, and in fulness of time itself break up and give to the nation unity, self-government, and matchless power.

William found Lincoln as the Roman governors had already found it, a place to be considered worthy of first military regard. It was now a large town containing one thousand and seventy houses, with from sixty to seventy thousand inhabitants—exclusive, I take it, of the garrison—a well-appointed defence, and it may be a fort or castle. It stood high also in popular estimation, so that there was once a prophecy current in reference to it to the effect that it would be one of the rivals of York and London:—

> "Lincoln was, London is, and York shall be,
> The fairest city of the three,"

a prophecy which can scarcely be considered as fulfilled, but which in its time had its influence on the minds of the people. The Conqueror made it his first great act to build a sufficient castle; I am unable to say whether he built *de novo*, or whether he laid his foundations on a basis already founded. At all events, under his direction the great castle appeared in the Southern front, and thus laid it became the theatre of events almost too numerous to name. Here Queen Matilda defended herself from Stephen, and David of Scotland bowed his proud head to King John; here against this same John another Joan of Arc, named Philippa, took chief command of the garrison, and held it for a whole year; and here, in the time of Richard III., the feudal lord and owner of the castle on the hill was John of Gaunt, Duke of Lancaster, and Earl of Lincoln, Leicester, and Derby. John of Gaunt let the old castle stand, and kept it garrisoned for the purposes of defence, and saw it kept and sustained, and liked to have and hold it under his own eye; but for domestic reasons he found it convenient to build a palatial castle for winter residence in a warmer and less exposed condition below the hill, where, espoused to the Lady Catherine or Kate Swinford, widow of a bold Lincolnshire Knight, he lived in great magnificence—a territorial prince within a kingdom, and in his territory not less King than the King. Here, lastly, the Parliamentary troops in the time of the civil wars were successful under the Earl of Manchester in planting their flag and displacing the followers of Charles. The second division of the southern aspect of the city was devoted to church purposes, and on this site Remigius de Fescamp, Bishop of Dorchester, built a noble cathedral. After him, one successor only intervening, the Bishop Alexander de Blois wished to extend the cathedral church, and ground for the extension was consequently laid out beyond the original eastern line of the city. Remigius is reported to have completed his part of the work in four years, and Alexander completed what he had to do with considerable expedition. The first commenced his work about the year 1086-7; the latter probably completed his work about the year 1130; and from then to this time the wonderful and beautiful pile has raised its head, the crown of the hill of the Roman Lindum and Anglo-Saxon Lincolyn. The cathedral holds its place for the purpose for which it was erected; but the castle in the piping times of peace has surrendered itself—towers, keep, battlements, dungeons, and all else—to the pervading spirit. Now the castle holds the county gaol and county hall, bought by the county magistrates of the Crown in the year 1832 for the sum of £13,700, and every sign of the disgusting and ignorant horrible is removed from it except at one part. In the north-eastern corner overhanging a church, called St. Paul's—said church believed to be built on the site where Paulinus erected the first church in the reign of Saxon Penda—there is a tower, called Cobb's Hall. This tower, in the ineffable wisdom of the revengeful demon that sits on human hearts, is devoted to the occasional exhibition of the worst outrage of our civilised age. To it, after judges and juries have sat in grave state—after sermons have been preached and religious rites prostrated in wanton disrespect of their essences, some miserable wretch, idiot, maniac, malefactor is towed, to be delivered to the hands of a malefactor worse, far worse, than himself, to be publicly strangled by worst malefactor, for the sum of five pounds and a bad suit of dead man's clothes. Ghastly such an exhibition anywhere and everywhere; but doubly hateful and harshly satirical when performed over those foundations on which the gentle Paulinus first taught to the uncivilised of Lincoln the faith which it is heresy not to profess, but which seems so very hard to practise.

Once, and not long since, after one of these disgusting exhibitions, an eminent London anatomist descended with a dead malefactor into Cobb's Hall, to submit the body to the usages and purposes of science. Our *savant* had laid out his bright scalpels, and was about to begin, when, looking out, he saw, peering in on him from an open door or window, the flashing eyes of two live convicts, who had made their ways, out of curiosity, to the hall. It was no pleasant predicament, and the *savant* felt the fact. To fly or not to fly? that was the question. One by one the bright knives, unsmeared and shining as ever, rested on their red velvet; snap went the box, and up rose the science man. Two pair of eyes to one pair, and the two pair red-hot with the same fire of revenge as that which had just executed the malefactor. Well might our anatomist walk forth as he did, leaving the furies behind him, before they had time to recover from their wonder. Second satire this on the atrocities of Cobb's Hall. Learned anatomist, ashamed of his possession, and quitting it as some-

thing that ought not to have come into his hands in that way, and as something that might call out with its dead, imbecile mouth for protection, if further outraged and mutilated.

Returning a moment to the earlier days of the city, I find that Remigius, Bishop of Dorchester, in the diocese of Wessex, was translated to Lincoln, on the passing of an edict that bishoprics should be entirely confined to fortified towns. I find, further, that the city soon became a great mart, where men of trade, the kingdom over, brought their goods for sale; that Edward the Third made it a staple for wool, leather, and lead; that there was a mint allowed, and that money was coined for the use of the citizens in their commercial enterprises. The visitor to modern Lincoln will find the outline of the old city still easily traceable. The Newport Gate will be open to him yet, and across the High-street he will step under the ancient Guildhall, a kind of smaller Temple Bar, over which the Mayor and Corporation have for centuries past held their councils. Beneath the hill, he will find almost a new town, with all modern conveniences, and on the crest of the hill, up the which no one will envy him in his journey, he will discover, by the Cathedral and the remains of the Castle, the famous City Asylum of which I have spoken, the County Hospital, and the Workhouse. He will see the streets well paved, the trade brisk, and the signs of wealth abundant. But if he go deeper, he will discover a condition which, as a sanitarian, he will not admire: he will note, crossing the city from east to west, a river, which has at points the odour of a common sewer. Lower in the town, and running nearly parallel with the river, he will discover another open channel, called the Great Gowt Drain, which gives exit to the waters of the waste drainage, receives the sewage from the houses on its banks, and, when low and stagnant, is another open sewer; while at the lowest part of the city, at the extreme south, and investing it on the southern and eastern sides, he will see an open dyke, called the Cincil Dyke, in a state of pollution such as is now happily rare to behold in an English town. I shall dwell on this question of the sanitary condition in a future chapter.

The population of Lincoln has in various times fluctuated, but in this century it has been steadily on the increase. The increase has been as follows:—

In 1801	the	population	was 7,205
,, 1811	,,	,,	8,589
,, 1821	,,	,,	9,995
,, 1831	,,	,,	11,217
,, 1841	,,	,,	13,806
,, 1851	,,	,,	17,536
,, 1861	,,	,,	20,999

The number of houses is now considerably over four thousand.

The trade of the city has also rapidly increased, and the manufacture of agricultural implements and various other necessities of agriculture is most extensive. By the last returns I find the inhabitants are divided in the subjoined order:—

Of Persons aged 20 *and upwards.*

Professional classes . .	751	or 3·0	per cent.
Domestic	10,077	,, 39·6	,,
Commercial . . .	599	,, 2·4	,,
Agricultural . . .	6,494	,, 25·6	,,
Industrial . . .	6,001	,, 23·6	,,
Indefinite, non-productive	1,476	,, 5·8	,,

Of the industrial classes there were no less than 313 engine and machine makers in 1861, all of whom have found occupation within the last quarter of the century. They are at this moment in much larger numbers than in 1861, and by the next census will probably have increased threefold.

In closing this brief history of the City of Lincoln, it is worthy of note that at the extreme southern part, and on what is called the southern common, there are several fields marked out as yet and known as the "Malander closes." Tradition gives it tongue that here once stood a Leper Hospital, whither from far and near came those affected with the "maladie" to rest and be cured. No remains of this Hospice are now to be made out, nor is there any holy well near that retains "marvellous fame;" but as to the existence at one time of the institution, there is, I think, no reasonable doubt.

Ovariotomy in France.—M. Kœberlè, of Strasburg, has just reported another successful case of ovariotomy to the Academy of Medicine, this making his thirteenth operation, three only of which have proved unsuccessful.

REVIEWS.

The Principles and Practice of Medicine; Designed Chiefly for Students of Indian Medical Colleges. By John Peet, M.D., F.R.C.P., Surgeon-Major Bombay Army; Principal and Professor of Medicine, Grant Medical College; and Surgeon of the Jamsetjee Jejeebhoy Hospital at Bombay. London: Churchill and Sons. Bombay: Stracker, Vining, and Co. 1864. Pp. 590.

We will permit the author to state his own design in this work. "The preparation of a complete treatise upon the Practice of Medicine, which would claim to rival existing standard works, has not been attempted. Nor has it been sought to supersede the many excellent treatises that are extant upon the prevailing diseases of tropical climates. The author has desired to set before Indian Medical students the various subjects that are usually comprised in a system of Medicine, in those points of view in which his experience as a teacher for nearly twenty years assures him they will be most readily apprehended."—Preface. Accordingly we have first of all the subject of general pathology treated, the elements of disease being discussed much on the same plan as they are in the work of Dr. C. J. B. Williams, to whom the author is evidently largely indebted, followed by a section upon general therapeutics, the remainder of the volume being made up by the ordinary topics embraced under special pathology. A section upon hygiene has special reference to the conditions of life in India. He tells us here that "the subject of native dietetics in India has never been investigated in regard to its bearing upon health and disease. An elaborate account of the diet of various castes, coupled with the nutritive value of different articles, is a desideratum."—P. 133. Altogether we must call this book a somewhat superficial one. We should be glad could we stop here, and not be called upon to add that it is not in everything to be relied upon. There is too much of the cut and paste character about it, and even this not of a very modern type. If the author has to explain a phenomenon he will often take the popular and most easy explanation in preference to one which *may* after all be more correct. An instance of that occurs in the description which he gives of the changes detected by auscultation in pulmonary disease. He describes here the various sounds so elaborately differentiated by Laennec and his followers, giving that old stereotyped account of bronchial respiration, bronchophony, pectoriloquy, crepitant rhonchus, crepitus redux, etc., which is such a stumbling-block to students when they come to apply the descriptions at the bedside. He explains bronchophony accordingly as due to the consolidated lung being a better conductor of sound than the healthy lung, coolly telling his readers in a note that he has not thought it expedient to notice Skoda's views. We think that in writing for Indian students Skoda's classification of morbid sounds would have been by far the least puzzling, to say nothing of its being more true to nature; while in the explanation of the sounds heard the writer should have had an opinion of his own upon the controverted points. By the way, Dr. Peet spells rhonchus "rhoncus" everywhere, and bronchophony "broncophony." Another thing has astonished us a little. There is towards the close of the book a chapter entitled "Epidemic Diseases," which Dr. Peet commences as follows:—"The effect of epidemic influence in modifying the severity and prevalence of various diseases has been already noticed (p. 107) [the part relating to general pathology]. There are, however, some diseases which appear to have no other cause. These will form the subject of the present chapter."—P. 544. It must be rather puzzling to the Medical student to find, after reading this sentence, that the only epidemic disease the author can tell him about is "epidemic cholera." Is this really, then, the only epidemic disease in India? If so, why tell his reader that "there are *diseases* which appear to have no other cause?" But passing over this, we really should have expected to find something like an accurate account of a disease so important for Indian students to comprehend in all its bearings as Asiatic cholera. What, then, will our readers think about the following extracts:—"The causes which predispose to cholera are not well known." "We are very much in the dark as to what these so-called 'localising circumstances' really are. Impure water, want of cleanliness, and the emanations from cesspools, etc., are often stated to be the main circumstances; but more full and precise information than we as yet possess is necessary before we

can determine the relation between such influences and this disease." Surely the literature of his Profession upon this subject, especially the investigations carried on in this country in the latest epidemics of cholera, might have enabled Dr. Peet to have penned something better than this, and something, too, which would have been less likely to mislead the native mind by inducing his readers to undervalue the injurious influences of impure water and of the gases resulting from fæcal decomposition. We never read so miserable an account of the treatment of cholera as Dr. Peet furnishes us with. He dismisses this important subject in twenty-six lines of type. The book is altogether less carefully written than we might have expected, and not calculated to add much to the author's reputation.

How to Work with the Microscope. By LIONEL S. BEALE, M.B., F.R.S., etc., etc. Third edition, illustrated with 56 plates containing upwards of 250 figures, and a photographic plate. London: Harrison, Pall Mall.

THIS book has more in it than appears from the mere title. Of course, it shows, as it professes, "how to work with the microscope," and all its teaching is derived from the only true source, the author's own work in his own laboratory and study. It gives a description of the structure and functions of every part of the microscope, and of all the microscopes and microscopic apparatus in common use. But then it teaches the student not merely to use things which he purchases, but to make so many things for himself, and to do so many things! For instance, not only to draw, but to engrave or lithograph his own drawings, so that we might claim for Dr. Beale's book that it teaches "work" in general. It gives details of the most advanced microscopic discoveries, and of the physiological facts which have been made out especially by Dr. Beale's own labours. There is a chapter, to which Dr. Maddox has contributed, on the art of microscopic photography, with a frontispiece showing specimens of photographs, for the examination of which a small lens is provided and is attached to a book-marker. The art of dissecting and injecting, and of micro-chemical analysis is fully detailed. There is, besides, an exposition of those principles of physiology relating to growth and development, to vital forces and movement, and the minute structure of tissues, and especially of the nerves, which have been put forth by Dr. Beale, and which seem to be gradually accepted by the scientific world.

A Companion to the British Pharmacopœia; comparing the Strength of the various Preparations with those of the London, Edinburgh, and Dublin, United States, and other Foreign Pharmacopœias: with Practical Hints on Prescribing. By PETER SQUIRE, F.L.S., Chemist on the Establishment of the Queen. Second Edition. Churchill and Sons. 1864.

VERY full of matter, very compact, and clearly arranged. This edition is about one-fourth larger than the preceding one. The medicinal properties and doses have been revised, the references to foreign Pharmacopœias have been enlarged and made more complete, and the synonyms from those Pharmacopœias added; but the contents of the British Pharmacopœia have been kept clear and distinct, by placing over every preparation not contained it the words "Not officinal," to which latter class considerable additions have been made. Throughout the work the Pharmacopœial preparations are distinguished from others by different type, and whenever any preparation is mentioned, whether in the body of the work or in the index, there the dose is also given.

Mr. Squire's "Companion" enables the Practitioner to see, in very short space, what are the physical and chemical properties of any given drug; what its composition, if compound; or, if simple, it can be seen in what proportion it enters into any compounds containing it: some account of solubility, chemical properties, and tests; a comparative view of the names under which it passes, and of the proportions of its ingredients in the London, Edinburgh, Dublin, United States, Belgian, French, and other foreign Pharmacopœias; the medicinal properties, dose, and maladies in which it is used. Besides this, any non-officinal preparations, such as have acquired popularity or are used by any Practitioners of eminence, are appended. For instance, after treating of chloroform, in all the physical, chemical, Pharmaceutical, and Medical relations we have mentioned, Mr. Squire gives us formulæ for a camphorated chloroform used in toothache, for a "tinctura chloroformi composita," under which title he describes the compound called "chlorodyne," and an ointment. We may observe that Mr. Squire's work is a true *supplement* to the Pharmacopœia, as it contains most of the remedies in common use which are not to be found there, as pepsine, sumbul, aloine, Calabar bean, solution of bimeconate of morphia, black drop, nitromuriatic bath, black wash. This *non-officinal* department will be found to include a great number of very useful formulæ for young prescribers, and Mr. Squire's thorough acquaintance with all English and foreign authorised and Hospital formulæ is made available for the benefit of his readers.

We still think many of the doses too large, especially the *minimum* ones; but many of them are reduced in this edition, and we are fully aware that the habits of various Practitioners differ so much that it is impossible to lay down a dogmatic rule. We say this, therefore, not by way of criticism so much as in order to suggest inquiry and comparison. Suppose, for example, a Practitioner desires to give a hint to a sluggish liver, and looks to Mr. Squire's doses, he will find grey powder marked, *Dose, 5 to 20 grains;* and blue pill, *Dose, 4 to 6 grains as an alterative, and 10 grains as a purgative.* These doses are needlessly large, in our opinion, and if often taken would be felt in the mouth. Sulphate of potass as a purgative—*Dose, 1 to 2 drms.* This is a large dose of a difficultly soluble sal., and trenches on the quantity which may act as an irritant poison. Not to dwell on these doubtful points, however, let us say that the book is a marvellous specimen of clear and concentrated information, and shows marks of work and thought in every line.

FOREIGN CORRESPONDENCE.

GERMANY.

FACIAL SPASM—NEUROTOMY—ANTHELMINTICS—TRICHINOSIS.

BERLIN, September 25.

AT a recent meeting of the Medical Society of Berlin, Professor A. Von Graefe introduced an interesting case of facial spasm which he had cured by neurotomy. The spasm affected the left side of the face, was exceedingly violent, and only ceased during sleep. It could be stopped at once by pressure on a certain point of the lower jaw behind the last molar tooth. At first doubts arose whether this point corresponded to the trunk of the inferior alveolar, or to a dental or gingival nerve. It was observed that the nearer the pressure was exercised towards the maxillary foramen, the easier it was to stop the spasm. But, nevertheless, it seemed strange that much the same effect should be produced by pressing so much more anteriorly. Being thus somewhat uncertain as to the seat of the disease, Von Graefe first made an incision a few lines behind the last alveolus, through the gums, down to the bone, ascending along its inner side to its edge. After the operation the spasm was diminished, probably from the loss of blood; but this improvement soon ceased. It, therefore, became evident that the trunk of the alveolar nerve would have to be divided; but the operation was for certain reasons postponed for some time. Meanwhile the intensity of the spasm increased, and it was observed that there appeared two so-called "induced points of pressure"—viz., one on the temple, corresponding to the temporal branch of the subcutaneous malæ nerve, and the other corresponding to the supra-orbital nerve. "Induced points of pressure" differ from the real "starting-point" by the circumstance that by pressure on the former, the spasm is only diminished, but not altogether stopped, and also by their being observed at a later period of the disease only. If neurotomy is made near an induced point, the spasm is considerably lessened, and it sometimes even appears as if it were altogether cured; but it soon regains its previous violence. In order to see whether this would again occur in the present case, Von Graefe first divided the supra-orbital nerve and the temporal branch of the subcutaneous malæ. The spasm was diminished in some parts, but went on in the zygomatics and the levator labii superioris muscles. Within a fortnight, however, the whole aspect of the case was as bad as it had been before. Then the Professor thought it necessary to divide the inferior alveolar nerve, which he did under the mucous membrane proceeding from the cavity of the mouth; and with the effect that the spasm ceased at once and entirely, and did not recur. The patient was not under the

influence of chloroform during the operation. The pain was short, but exceedingly violent; the patient turned ghastly pale, and did not utter a word for some time. The next day, however, she was able to leave the Hospital.

By such an operation the mental and mylo-hyoid nerves, besides the alveolar, are divided. The section of the latter causes paralysis of the mylohyoid and of the anterior belly of the digastricus muscles, but no appreciable functional disturbances, the horns of the hyoid bone being always at the same height. From the section of the mental nerve, anæsthesia of the corresponding part of the chin results. The insensibility of the gum is complete, and ceases abruptly in the middle line. Moreover, there was in this patient complete anæsthesia of the left half of the tongue and the arcus glosso-palatinus. From this it appears that the lingual nerve had also been divided,—an accident which it is difficult to avoid, and which some Surgeons even consider inevitable. With some practice, however, it might perhaps be avoided by the Surgeon pressing the plane of the neurotome very closely to the bone, on introducing it, and only changing its position for the purpose of cutting, after having reached the maxillary foramen. The passage of the knife must be controlled by the left index gliding along the internal pterygoid muscle. This patient did not feel any inconvenience of the extensive anæsthesia of the cavity of the mouth, the chin, the lower jaw, the temple, and the forehead.

The case presented a further physiological interest by settling the question concerning the function of the lingual and glosso-pharyngeal nerves. Numerous experiments made with the most different substances showed that the sensation of taste was entirely destroyed up to the papillæ valatæ. The same result was obtained by applying the continuous galvanic current. The view of most physiologists, that the lingual was only a sentient nerve, but not the one of the special sense of taste, is thereby refuted.

Professor Remak, who has observed a large number of cases of facial spasm, soon afterwards gave some account of them to the same Society. He said that of all spasms those of the face were the most frequent, probably owing to the muscles and nerves of the face being more than those of other parts exposed to noxious influences from without, and being at the same time only little subjected to the influence of volition. Facial spasm is often consequent upon peripheral facial paralysis. This affection, if nothing be done for it, gradually entails contraction of the muscles of the face, which become rigid and retract the corresponding parts. If these contractions are left to themselves, they disappear after a time and make room for spasms. These are, as it were, signs of the return of the irritability of the muscles, which, insufficiently innervated and not under the stringent control of the centre, but at the same time excitable, or, to use an expression of Dr. Radcliffe's, incitable, are thrown in convulsions by external stimuli, especially changes of temperature. Such spasms also occur on the opposite side of the face. In other cases the spasms are reflex ones, due to periostitis of the zygomatic bone, or to inflammation of the globe, the conjunctiva, or the eyelids. In such instances the continuous galvanic current is the best remedy. Facial spasm may also be consequent upon photophobia and upon incarceration of nerves by osseous swellings. In cases of the latter kind, section of the nerves is the only cure.

Professor Mosler has continued his researches on the anthelmintic properties of benzine, which, according to him, takes the first rank amongst all remedies of this kind, and is tolerated by the human system in considerable doses without unpleasant consequences. Large doses of benzine kill the trichinæ of the intestines, and thus prevent the immigration of their progeny into the muscles. Benzine would therefore appear to be the best remedy for the early stage of trichinosis. Professor Morler has employed benzine largely in the epidemic of that disease which raged last spring in Quedlinburg. At first it was given in "capsules gélatineuses," but this soon proved too expensive and troublesome, and the following formula was therefore adopted:—℞ Benzini, ʒij.; succi glycyrrh. mucilag. gummi. arab. āā., ʒj.; aq. menth., ʒiv.; a tablespoonful every hour or two hours (shake the bottle). This preparation agreed very well with the patients. Many of them mentioned that they felt much better after it, that the muscular pains were less severe, etc. They took two drachms per diem for four or six days in succession, and yet, although there was violent fever, no unpleasant results occurred which could have been attributed to the medicine. It seems that the poisonous effects of benzine observed in the first experiments on animals were partly due to the method employed. In those cases benzine was poured into the mouths of the beasts, and part reached the trachea and the lungs, after which fatal pneumonia set in. If, on the contrary, the benzine was mixed with the food the animals remained in good health. The general results of the administration of benzine in the epidemic just mentioned will soon be published. Professor Mosler afterwards experimented on four pigs, which were fed with trichinous rabbit's flesh. Pig number 1 was then left without any medicine, number 2 took sulphate of soda, 3 and 4 took benzine. In number 1 severe morbid symptoms set in about a fortnight after infection. The animal became much emaciated and weak on its legs, the eyes were dim, the voice exceedingly hoarse, and it often screamed with pain. The pulse was fast, the skin very hot, the thirst considerable. All these symptoms were entirely wanting in Nos. 3 and 4, which had eaten the same quantity of trichinous meat, but had been treated with benzine a week after infection. From this it was justly concluded that a much larger number of trichinæ had immigrated into the muscles of number 1 than in those of Nos. 3 and 4. In order to be quite certain about this point, twenty days after infection a small piece of the pectoralis-major muscle was excised from the three pigs, and a quantity weighing one-twentieth of a gramme (less than a grain) was found to contain in number 1 about 257 trichinæ, while in number 3 there were 95, and in number 4 the same number. The worms were counted over several times in order to avoid mistakes, which proved very trifling. The morbid symptoms went on increasing in number 1 until three weeks after infection, when Professor Morler thought of trying whether, by the administration of benzine in that advanced stage of the disorder, benefit might still be obtained. After the first dose had been given the severity of the disorder did no longer increase, and after a few others there was more appetite and less heaviness. The animal took altogether four ounces of benzine within twenty days without any bad results. After that time most of the morbid symptoms had disappeared. A piece of flesh was now excised for ascertaining whether there had been any effect on the trichinæ in the muscles, but they were found to be still living, and even larger doses of benzine, which were subsequently given, killed only a few of them.

Pig number 2 was fed with the same quantity of trichinous rabbit flesh as number 1, but from the seventh day it took daily half an ounce of sulphate of soda with the food for some time. Copious diarrhœa ensued, but no intestinal trichinæ could be found in the fæces, so that it would appear that ordinary purgatives have no action on intestinal trichinæ. The symptoms of trichinosis were well-marked in this animal.

Pig number 3 was fed with trichinous meat as before, and had no medicine for eight days, in order that the use of benzine might only be commenced at a time when it is possible, in certain cases, to diagnose trichinosis in man. After the first dose of benzine the animal passed sixteen ascarides, a fresh proof for the anthelmintic properties of the drug. No morbid symptoms appeared, from which it was concluded that benzine had killed, if not all, at least a large number of intestinal trichinæ. This supposition was confirmed by the examination of a piece of flesh excised from the pectoral muscle, and in which the number of trichinæ found was, as has been stated, considerably less than in pigs number 1 and 2. The animal continued to take two drachms of benzine per diem for some time, and did exceedingly well.

Pig number 4 was treated much in the same manner, and never fell ill at all. Benzine agreed so well with it that it grew very much, taking at one time two ounces of that drug per diem for five days consecutively. It would therefore appear that a cautious administration of benzine in man cannot be hurtful. Professor Mosler is at present experimenting upon the action of benzine on tapeworm, and it would certainly be a boon if he were to give us a certain remedy for this troublesome parasite, which so frequently baffles all our well-meant and energetic therapeutical efforts.

AMERICA.

(Continued from page 400.)

Before Petersburg, Va., September 9.

On the afternoon of the 18th, the heaviest thunderstorm of the season swept over the ground occupied by the corps. The hospitals on the high ground forming the north bank of

the James River, were completely exposed to the fury of the gale. Many of the flies affording shelter to the wounded were blown down. One man was killed by the lightning.

On the evening of the 18th the 3rd Division of the corps returned to Petersburg, and took possession of the works hitherto held by the 5th Corps, in order to enable that command to mass for an attack upon the Weldon Railroad. The two divisions still left at Deep Bottom remained until the evening of the 20th, when they also withdrew, and moved to the left of Petersburg, where the 5th Corps were then engaging the enemy. Partly on account of the narrowness of the road and of its condition owing to the late heavy rains, and partly, perhaps, for reasons of a more essentially military character, only ten ambulances were permitted to accompany each division. The main part of the train and all the Medical and Hospital waggons went into park on the ground occupied as a Hospital previous to the James River movement. The two divisions advanced southward along the railroad (Weldon) from the position held by the 5th Corps, destroying it as they progressed, until the morning of the 15th found them at Reams Station, with signs of an enemy in their front. Expecting that the want of a medicine waggon would be much felt, should any skirmishing take place, one was sent for to the William's House, at which the main train of ambulances, &c., were parked. This house is about seven miles from Reams Station. Winding south and eastward through the woods from the station, the road, narrow and much cut up, strikes the Jerusalem Plank at Geary's Church, a little over two miles from the William's House. At less than half a mile from the station, on the right of Geary's Road, is an open space and a house, "Emmons," at which it was intended to form field Hospitals on the arrival of the medicine waggon. But shortly after the departure of an orderly for this waggon, the enemy advanced upon our left and rear, seemingly intent upon taking possession of the road, and although they were unsuccessful in the attempt, they demonstrated the unsuitability of Emmons' as a site for the Hospitals, and also the impropriety and danger of blocking up this contested road with waggons. A second orderly was now dispatched to the William's House, with instructions that the supply waggon sent for was to make all haste to the front, and to travel, not by the Geary Road, but by the railroad, striking it on the 5th Corps front, and proceeding southward along it until our position was reached. It failed in its attempt. Late in the afternoon it approached the station, but finding the enemy in possession of the road at this point, the sergeant in charge prudently put back to his starting point.

The few men wounded in this the first attack were collected at Reams Church, a small square building just within the breastworks at the station. The Hospital staff of each division rendezvoused here, every Medical officer being attended by his orderly carrying the field companion, upon which solely the wounded during this battle had to rely for dressings. The field companion is a small knapsack, containing chiefly lint, isinglass plaster, chloroform, whisky, and morphine. It is gratifying to know that this supply, apparently so insignificant, was equal to all the demands made upon it. The wounded were dressed and placed in the ambulance waggons, ready to be removed at a moment's warning, for as yet it was uncertain where Hospitals would be established, if established at all; indeed, the situation seemed to admit of none. The line we defended formed two-thirds of a circle, with a radius so small that bullets fired at the left coursed over the enclosed area and struck down men in position on the right. The Geary Church-road was so exposed, as shown by the enemy's first attack, as to render the selection of any point of it out of the question, and the road running parallel to the railroad was still more unsuitable, as it lay in front of our line of battle, penetrating our breastwork only at the station. No place of security could be found, so the church, being a prominent object, and no more exposed, although so close to the breastworks, than any other part of the field, was selected as a field depôt, to which the stretcher carriers were instructed to bear the wounded.

Shortly after this a feeble assault was made upon the part of the line in front of the church, and the ambulances, wounded, and Medical officers had to retire about a hundred yards, to the shelter, such as it afforded, of a very shallow ravine, where they remained during the more vigorous assault made about 2 p.m. By this time, the ambulances being all well filled, they were started for the Williams-house, running whatever risks they might be exposed to upon the Geary Church-road. An orderly had been sent on ahead to bring up empty waggons to replace those loaded and proceeding to the rear. An operative Surgeon and staff of assistants were sent with the wounded to perform whatever operations might be required.

The fresh ambulances reached the front in safety previous to the commencement of the final assault at 5 p.m. A storm of shot and shell, pouring in from all sides, and continuing for about twenty minutes, ushered it in. It was successful so far as the possession of the destroyed railroad at that point was concerned. Our troops fell back a quarter of a mile and formed another line. The ambulance officers happily succeeded in loading up with such cases as were unable from the nature of their wounds to seek their own way to the rear, and in getting their waggons in good time out of the way of the manœuvring troops. Stretchermen and stragglers aided the other cases to the rear, so that none of those wounded behind the breastwork fell into the hands of the enemy. Those on the picket line, however, who unluckily got hit became cut off by the enemy's storming column, and necessarily were made prisoners. With a view to providing Surgical care and skill to those of our wounded thus captured, four Medical officers were detailed to remain behind and take charge of them. They have since then been returned to us, and report that sixty Union wounded were made prisoners. The loaded ambulances moved off towards the Williams-house, accompanied or followed by all those able to walk with assistance, and by some carried on stretchers. About a mile and a half from the field some Ninth Corps ambulances and some of those belonging to our own corps picked up the majority of these cases. By daybreak of the 26th all the wounded in our possession—three hundred and fifty in number—were safely lodged in the Williams-house, and were being dressed previous to their removal to the depôt at City Point. In the meantime, the two divisions engaged had returned to the neighbourhood of their old camping ground, where they are now settled.

One Medical officer was wounded in the head by a piece of shell at this fight. The parietal bone was laid bare, and its outer table fractured and slightly depressed. Two were captured, independent of the four left purposely behind. A good many casualties occurred in the Ambulance Corps. Of late wounds in the Profession have been rather common. A Ninth Corps Surgeon, in the assault after the explosion of Burnside's mine, was shot through the thigh, the femoral artery being injured. When he reached the Hospital hæmorrhage had ceased by the formation of clots, but he was much exhausted. The clots were dislodged, and the vessel tied in the wound. He is now doing well. The Fifth Corps, in their fight on August 19, had a Medical officer killed—shot through the abdomen. The Medical Director of Torbett's Cavalry Corps has lately been killed by one of the enemy's sharpshooters. So far as danger is concerned, the combatant officer does not have it all to himself.

Resection of the knee-joint for gunshot fracture has been performed by Surgeon Nathan Hayward, 20th Mass. Vols., but its issue has yet to be learned. The patient left the field Hospital on the day succeeding the operation, and has not been heard of since. The almost impossibility of tracing the subsequent history of the cases on whom they operate is a point that is keenly felt by Medical men in the field. The first and only time I have known Pirogoff's operation to have been performed in the Hospitals of this corps was quite recently by Surgeon G. Chaddock, 7th Mich. Vols. Among the generality of Medical officers here the operations about the foot and ankle are not looked upon very favourably. Last year Syme's amputation was adopted to a large extent, but during this campaign the operation above the ankle has mainly superseded it. The Pirogoff above mentioned was doing well when sent to the rear to general Hospital.

In writing the above notes upon the campaign, I have had several times occasion to mention the depôt at City Point. A few words on this subject might not seem inapropos. City Point, on the south bank of the confluence of the James and Appernattox rivers, is our base of supplies, as it in other days was for seagoing vessels the wharf of Petersburg. The river bank, raising abruptly from the surface of the water some forty feet, spreads out into a large plateau, bounded on its southern aspect by a range of low hills. On this level ground, about a half a mile above the Point, and close to the river's brink, the depôt for the sick and wounded of the army of the Potomac is formed, consisting of the Hospitals of the Second, Fifth, Sixth, and Ninth corps, and of the Cavalry and coloured troops. Those belonging to General Butler's

army are the permanent establishments at Fortress Monroe. The Hospitals consist of the ordinary army Hospital tents (14 feet long by 15 broad, supported by two uprights and a ridge pole), arranged so that the avenues run parallel to the course of the river. Each corp possesses canvas sufficient to accommodate, without crowding, 2000 wounded. On an emergency, of course many more could be, and have been temporarily sheltered. The tents are exceeding well trenched, and have arbours built over them, and ornamentation has not been lost sight of in the construction of the arbours. Iron bedsteads are in use, and each possesses a mosquito frame and netting to protect the patient from the flies, which at this season are capable of worrying even a healthy man into a fever. Disposed along the centre of the wide avenues are the bakeries, kitchens, dispensaries, water reservoirs, and sinks. Perhaps these last would be better situated at a greater distance from the wards, but where so many Hospitals are aggregated at one point it is difficult to accomplish this, and at the same time have them within easy reach of the patients. The dust at one time was the greatest enemy that had to be combatted here, but it was ultimately subdued. Four or five steam engines were brought to the river's edge, and the ground was kept constantly sprinkled by them.

There is a wharf built close to the Hospital for the shipment of wounded that are to be sent north, and for the discharge of Medical stores and supplies from the large steamers belonging to the Medical Purveyor's Department. The ice alone unloaded here would make this wharf a busy one, but there are also constantly being unloaded two boats belonging to the U. S. Sanitary Commission. The Commission of late has not been restricting itself to supplying the wants of the sick and wounded. The men in the trenches and camps have been sharing a few of its stores, such as fresh tomatoes and peaches, dried fruits, and tobacco. Each corps' Hospital at the Point and also in the field has an always well supplied Sanitary Commission depôt in connection with it. Undoubtedly it has performed a vast amount of service to wounded in the fearful contests of this summer, but I consider that it has been dearly paid for by the people. The number of the Commission's employées is often quoted to show the amount of labour and consequent good that must of necessity be performed; but these men must be paid, fed, clothed, and exempted from the draft, while the stores of the Commission could be equally satisfactorily distributed if turned over to the Medical purveyor.

In addition to the U.S.S.C. at the Point Hospitals there are a number of State Relief agencies, the ladies connected with which make themselves very useful, although none, perhaps, a Florence Nightingale, and each perhaps voted a bore by the Medical officers, who consider it almost an impossibility, with these fair ones present, to preserve the discipline required in a military Hospital.

By the way, while upon the subject of the Sanitary Commission, I must mention one point which it has been pressing upon the attention of Medical officers in the field, and for which it deserves all commendation. It is the question,—"What are the means that will render transportation most endurable in cases of gun-shot fracture of the long bones, and more especially of the femur, where amputation has not been performed upon the field?" The Commission proposes and furnishes two kinds of appliances; the one, sheet zinc perforated so that it may be readily cut with a heavy scissors and moulded to the surface of the limb: the other, a modification of the plaster of Paris casing. If one layer of zinc does not form a splint sufficiently strong, a second may be rolled in the same cloth before padding. The following are the directions given for the use of the gypsum:—

"The limb is first shaven or slightly oiled; a piece of old, coarse washed muslin is next selected of a size so that when folded about four thicknesses it is wide enough to envelop more than half of the circumference of the limb. The solution of plaster is then to be prepared. Fine, well dried, white plaster had better be selected, and before using a small portion should be mixed with water in a spoon, and allowed 'to set,' with a view of ascertaining the length of time requisite for that process. If it is over five minutes, a small quantity of common salt had better be dissolved in the water before adding the plaster. The more salt added, the sooner will the plaster 'set.' If delay be necessary, the addition of a few drops of carpenter's glue or mucilage will subserve that end. Equal parts of water and plaster are the best proportions. The plaster is sprinkled in the water and gradually mixed with it. The cloth, unfolded, is then immersed in the solution and well saturated; it is then to be quickly folded as before arranged, and laid on a flat surface, such as a board or a table, and smoothed once or twice with the hand in order to remove any irregularities of its surface, and then, with the help of an assistant, applied to the posterior surface of the limb. The portion extending below the heel is turned up on the sole of the foot, and the sides folded over the dorsum and a fold made at the ankle on either side, and a roller bandage applied pretty firmly over all. The limb is then to be held in a proper position (extension being made if necessary by the Surgeon) until the plaster becomes hard. The time required in preparing the cloth, mixing the plaster, and applying the casing to the limb, need not take more than fifteen minutes. After the plaster is firm and the bandage removed, we will have a solid plaster of Paris case partially enveloping the limb, leaving a portion of its anterior surface exposed to view. If any swelling occurs evaporating lotions can be applied to the exposed surface, and we can always easily determine the relation of the fractured ends. If necessary, an anterior splint made of the same material can be applied, and then both bound together with adhesive plaster, and, if desirable, a roller bandage over all. If the anterior splint is not used, two or three strips of adhesive plaster, one inch wide, or bands of any kind, may be applied around the casing, and will serve to keep it firmly adjusted."

Although these plans were recommended by the Commission, I believe, early in June, I have seen neither of them as yet put in practice. The Surgeon, in the field, usually applies a long straight splint along the outer aspect of the injured limb, and binds the sound one to its fellow, that a support may be given on the inside. Smith's anterior splint is often used, and is the one furnished by the Medical purveyor, but many prefer to apply it padded, as a double inclined plane to the posterior aspect of the extremity. Others, again, if they have among their Hospital attendants a man capable of constructing what is required, fix up these cases in fracture beds, but it is seldom that sufficient time is allowed to admit of this.

For gunshot fractures, especially of the humerus, radius, and ulna, resection has been much practised during the campaign, but the results, although believed to be favourable, are not ascertained. Assistant-Surgeon Howard, U.S.A., has been very active in promoting the adoption of this mode of practice. But he is not satisfied with simple resection. He has a drill, worked by means of a bow, with which he perforates the end of the bone after the fractured surfaces have been sawn off. He passes one or two iron wire sutures and having drawn them tight, so as to bring the surfaces into apposition, twists them, and cuts the ends short off at the twist. He has treated so a large number of cases during the summer, and will probably make the practice public at an early date. I cannot say that I look very favourably on the operation. I think it unnecessary. Bony union has been too often attained in gunshot fractures, when sutures to preserve the fractured ends in proper relation were unthought of, to permit any one to assert that they are necessary to such issue. Why resort to them, then? They may be useful in some (and I have seen such a one) rare cases where the tendency to displacement is so great as to readily overcome the restraining influence of splints and pads, with the little attention such can receive after a heavy battle; but in the majority of cases I consider them uncalled for. In gunshot fracture we must use every endeavour to check excess of action: in cases of non-union of fracture we pass sutures to induce such increase of action in the part as may end in the formation of new bone: the stimulation which in the latter case is beneficial may not be desired in the former.

Concerning Dr. Howard's plan of hermetically-sealing gunshot wounds of the chest I am more favourably impressed. I have seen a number of cases so treated, and can testify to the immediate relief experienced by the patients; and that such treatment is not necessarily mortal, I am also satisfied, having seen cases of ultimate recovery. I understand that Dr. Howard is about to publish a short reply to some remarks upon his sealing process, made in the *Lancet* a few months ago by Prof. Longmore. He has had much experience of this plan during the campaign, for to it and the wiring of bones he has devoted all his attention. Medical officers in charge of Hospitals have yielded him every facility.

The Medical service in the field during the past summer has been suffering continual losses. The time of service of most of the three years' regiments have expired, and although the majority of the men have volunteered for another term,

many of the Surgeons have been taking advantage of the opportunity to return to civil life. The drain on the service thus caused no doubt gave origin to the position of Acting Staff-Surgeon, as an inducement to these men of field experience to remain until the conclusion of the struggle. They are offered the pay and emoluments of regimental Surgeon, with the use of a "Government horse and equipments, and forage for the same." A few men have already taken the position, fewer still have decided upon being remustered into the service for three years more; the majority have returned to their homes with the intention of rejoining the army after a few weeks as Acting Staff-Surgeons.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, OCTOBER 18.

Mr. PRESCOTT HEWETT, President, in the Chair.

MR. BALMANNO SQUIRE exhibited several

COLOURED PHOTOGRAPHS OF SKIN DISEASES.

One of the photographs was taken from a girl sixteen years of age, who had psoriasis diffusa from the age of two years. The other was from a boy four years old, who had impetigo. These photographs will be no doubt a valuable help in the study of diseases of the skin.

Dr. MURCHISON showed several specimens of

INTESTINES FROM CASES OF TYPHOID FEVER.

The first specimen was one which was rarely met with. It represented the early stage of the disease; there was extensive deposit in the solitary glands and in Peyer's patches, but scarcely any ulceration. The patient died on the tenth or eleventh day. In the next case the patient died on the twenty-fifth day. In this specimen most extensive disease was seen, the lower three yards of the ileum being one mass of disease.

Dr. MURCHISON then, by way of contrast, showed

INTESTINES FROM A CASE OF TYPHUS COMPLICATED WITH DIARRHŒA.

In this case there had been diarrhœa from the beginning, and death took place apparently from this complication on the eighteenth day; yet the diagnosis of typhus was confidently made during life, as the rash was unmistakable. Dr. Murchison showed this specimen as some still believe that cases of fever complicated by diarrhœa are always typhoid, whereas, he added, diarrhœa is not a very uncommon complication of typhus.

Dr. MURCHISON also showed a specimen of

INTESTINE FROM A CHILD SIX MONTHS OLD WHO DIED OF TYPHOID FEVER.

At all events, the ulceration was unmistakably like that of typhoid, and the diagnosis was further warranted by the fact that the child's mother had shortly before died of typhoid. This specimen was exhibited by way of contrast, in the age of the patient, to one shown by Dr. Wilks last session, in which the patient's age was seventy years.

Dr. BRISTOWE said that in the epidemic of typhus in 1862 many of the cases at St. Thomas's Hospital were complicated with diarrhœa. It was, he thought, a peculiarity of that epidemic; but he also thought that the diarrhœa in a good many of the cases was accounted for by the fact that tartrate of potash had been administered by the gentleman under whose care the patients first came when admitted into the Hospital.

Dr. PEACOCK had had under his care in the epidemic referred to several cases of typhus complicated with diarrhœa, in which no aperient had been given. He did not dispute Dr. Bristowe's opinion that in some of the cases the diarrhœa was due to aperients, but it was certainly not in all. There were two specimens of healthy intestines from cases of typhus in which there had been diarrhœa, in the museum at St. Thomas's.

Dr. MURCHISON said that the observation as to the diarrhœa being due to purgatives had been made at the Fever Hospital, but in the cases he had described, so far as could be learned, there was no such cause. At all events, none of them had had purgatives for many days before death.

Dr. BRISTOWE said that he made his remarks chiefly to show that cases of fever were not to be considered to be typhoid simply because there was diarrhœa, as it might have been artificially produced before the patient came under care; and again, if spontaneous, autopsies proved that it did not necessarily indicate typhoid, as the intestines were frequently healthy.

Mr. HENRY SMITH then showed a specimen of

CANCER OF THE THYROID BODY.

This specimen excited great interest, both for its Surgical importance and for the rarity of cancer of the thyroid. A man, 43 years of age, was admitted into King's College Hospital for dyspnœa, which he had had several months, but which had been urgent for several days. The dyspnœa was especially paroxysmal. When admitted the nature and seat of the disease causing the symptoms were doubtful. A laryngoscopic examination showed that the larynx and as much of the trachea as could be seen were quite healthy; but as no positive evidence was obtainable as to where the obstruction was, Mr. Smith did not at once perform tracheotomy. In one paroxysm, however, the patient's condition became so critical that Mr. Richmond, the House-Surgeon, felt bound to operate. As it was impossible to obtain any clear idea of the nature of the case, difficulties were met with in the operation which had not been anticipated. The trachea could not be reached in the usual way, as a mass was situated over it. Mr. Richmond therefore carried his incision higher, and made an opening in the crico thyroid membrane. At this time, however, the patient had ceased to breathe, and although Mr. Richmond inflated the chest by means of an elastic catheter in the trachea, the patient did not rally. After death there was found extensive cancerous degeneration of the thyroid body. It had narrowed and also displaced the trachea. The obstruction was in the lower part of the neck, so that, as it turned out, the operation, although from the life symptoms justifiable, and advised by Mr. Smith, could not have been successful. Mr. Smith then referred to a case by Mr. Christopher Heath, in which a simlar difficulty had been met with, but in which a more successful result had been obtained. Mr. Heath's patient's life was prolonged for months, and she died ultimately of secondary cancer.

Dr. MORELL MACKENZIE thought the negative information supplied by the laryngoscopic examination was most valuable. He had in a similar case at the London Hospital, in the practice of Dr. Fraser, from such evidence, pointed out that the disease was too low to admit of operative interference doing any good. Dr. Mackenzie also suggested that, in addition to the permanent difficulty of breathing from actual pressure on the trachea, the paroxysms were probably caused by spasm of the vocal cords, caused by irritation of the recurrent laryngeal nerves involved in the tumour.

Mr. HEATH, after briefly remarking on his case quoted by Mr. Smith, said that he wished to suggest that tracheotomy-tubes were generally made too short. In the case referred to, he luckily had one with him which was unusually long. One of the size ordinarily supplied by instrument makers would have been of little use. He asked also the opinion of the Members as to whether the trachea should be opened above or below the isthmus. In cases like the one related by Mr. Smith, and in the similar one recorded by himself, the operation below was the only one likely to have been of use.

Mr. HOLMES asked on what grounds the diagnosis of cancer was founded.

Mr. SMITH said that the diagnosis was made from the naked eye appearances. Unfortunately, from accidental circumstances, he had been prevented making a microscopical examination when the specimen was fresh. It had now been a month in spirit.

Dr. BRISTOWE said that cancer of the thyroid was very rare. One case at St. Thomas's, said to have been an instance, appeared to him on careful examination to be rather a thyroid, with additional cancerous masses from disease of adjacent parts. He suggested that Mr. Smith's specimen should be carefully examined to see if the thyroid were primarily diseased or merely secondarily involved.

Dr. CRISP said the question was one of very great importance. He had once tabulated all the cases of disease of the thyroid he could find on record. He had not met with a single record of an undoubted case of cancer of the thyroid.

Mr. SHAW said that Mr. Cæsar Hawkins had recorded a case of cancer of the thyroid in the *Transactions* of the Medical and Chirurgical Society, and that his chief reason for doing so was the extreme rarity of the disease.

Mr. Henry Smith said, in reply to Mr. Shaw, there were no secondary deposits.

Dr. Wilks remarked that he had seen three cases of cancer of the thyroid; and in each it was of the epithelial variety. Moreover, in each there was cancer of the œsophagus as well, and therefore probably the thyroid was secondarily involved by extension from the œsophagus. Besides, in all three cases but one lobe of the thyroid was affected. He had seen many cases resembling the specimen exhibited by Mr. Smith. The thyroid was often transformed into a tough fibrous tissue; but he had not met with a single case of undoubted primary cancer.

Mr. Holmes said he asked the question as to the nature of the disease, not only on account of its pathological interest, but for its practical importance in Surgery. Mr. Bryant, in his "Clinical Surgery," had recorded a case in which an enlarged thyroid had been cut into for the relief of the pressure it occasioned. The patient got well, and the tumour subsided. Mr. Holmes said he had seen a similar case in one of the country Hospitals. The diagnosis was thus clearly important as regards treatment, as an incision into the thyroid might save life.

Dr. Murchison said that in the North of Italy it was a recognised operation to cut into an enlarged thyroid when it threatened life by pressure on the trachea. The wound was then stuffed with lint, and it suppurated, and often decreased very much in size. In several cases of this kind that he had seen, the patients recovered; but in some instances the operation was the immediate cause of death.

Dr. Harley and Dr. Murchison were appointed to examine and report on the specimen.

Dr. Harley then showed several specimens of

GALL STONES.

He did this chiefly in order to illustrate several points in the symptoms produced by their impaction. He showed that the pain and the danger to life were by no means in proportion to the size of the stone; and again he related cases to show that it was most probable that small angular pieces of inspissated bile even might produce serious symptoms.

Dr. Crisp said that a vast amount of practical information might be derived from the study of diseases of the lower animals as regards this question. If sheep were fed on sugar or on oil-cake, they had many gall-stones; if fed on grass, never; but if on grains, often. Dr. Crisp further remarked that gall-stones were commoner in women in the proportion of two and a-half to one. He had never seen a single case of gall-stone in a confirmed gin drinker.

The President said that a leading Surgeon of the metropolis had been subject to repeated attacks of jaundice for several years. After one severe attack he died from an accident. At the autopsy the cause of the jaundice was found to be inspissated bile.

Dr. Harley said that he had then under his care two Medical men who had suffered for years—one for five-and-twenty years. Although both looked most carefully for gall-stones, they never found any. It was probable that there were none, but that the symptoms were due to inspissated bile.

Dr. Harley next exhibited specimens of three varieties of

BLOOD CRYSTALS—HÆMIN, HÆMATOIDIN, AND HÆMATIN.

He brought this subject before the Society as it would be found that there was great confusion from different names being used by different observers, although they generally meant the same thing. Dr. Harley illustrated his remarks by drawings, and the following is a brief report of what he said:—1. Hæmin. These crystals were made by chemical reagents, and were first obtained by Teichmann by acting on blood with glacial acetic acid. These were short narrow prisms, and generally broken transversely at their ends. They were of a dark brown colour. 2. Hæmatoidin. These were always pathological, and were found in old apoplectic clots, and their appearance was always definite. They were distinguished from hæmin crystals by being broader and of a pale red colour. 3. In healthy blood it was possible easily to obtain crystals of hæmatin by dissolving a little in ether and then evaporating. These crystals are much larger than the others; they might be coloured or colourless. It was convenient to call them hæmatin, as they were not pathological, although their composition was not strictly that of the hæmatin of the blood corpuscles.

Dr. Wilks asked how soon the hæmatoidin crystals might form after an extravasation of blood? He asked this question as it had an important Medico-legal bearing, and correct data would help us to form an idea of the date of injuries to the brain. He thought they might be found in about fourteen days.

Dr. Harley felt the importance of Dr. Wilks' remarks, and on several occasions had got dates of apoplectic effusions, but had not had an opportunity of examining at the end of fourteen days. He had found them at the end of a month.

Dr. Sanderson said that he was the first to publish on the subject. He made artificial hæmorrhages in the brains of pigeons, and found that the crystals would appear in three days. They were hæmatoidin. From observations on corpora lutea he thought they might occur as early as this in the human subject.

Dr. Bristowe had not found the crystals in apoplectic clots sooner than six weeks.

POISONING BY BUTTER OF ANTIMONY.

Dr. Crisp exhibited the stomach of a girl, 19 years of age, who had taken three ounces of butter of antimony (chloride of antimony). The case occurred in the practice of Mr. Hopewell, of Chelsea. Dr. Crisp had examined the body with this gentleman; the poison was taken at one o'clock in the afternoon, and death occurred at one in the afternoon of the following day (twenty-four hours). The symptoms were excessive pain in the region of the stomach, great anxiety of countenance, excessive thirst, vomiting about six hours after the poison was taken, and diarrhœa a few hours before death. Little or no urine was passed; the intellectual faculties were unimpaired. A short time before death there was slight *subsultus tendinum;* the lips and mouth were black and excoriated, as was the œsophagus; the stomach was uniformly covered with the antimony, of which about two ounces were collected, on removing the lining membrane was seen black and charred the submucous tissue, having a reddish hue; the small intestine to the extent of about two feet from the pylorus was of a dark colour, and the lining membrane was readily detached. Nothing worthy of note was observed in the appearance of the other viscera. Dr. Crisp said that cases of poisoning by the chloride of antimony were very rare; Taylor in his work on poisons mentioned only four cases—one (doubtful) related by Orfila; a second in a boy, 10 years of age, who took a tablespoonful; a third in a boy, 7 years of age, who took two drachms; both these patients recovered. The fourth example was an army Surgeon, who took two or three ounces, and died in ten and a-half hours. Diarrhœa appears not to have been present in any of these cases. In the last case, attempts were made to evacuate, but nothing passed. A wax model of the recent appearance of the stomach above described was exhibited.

TUBERCULOUS LUNGS OF AN ANTELOPE.

Dr. Crisp exhibited a wax cast and the dried lungs of an antelope (Rheitboc), for the purpose of showing that nearly every part of the lungs was occupied by tubercular deposit, so that it was not improbable that in this and in other cases the lining membrane of the trachea partly performed the office of aerating the blood. There was one important practical fact connected with tubercle in the lower animals—viz., that the vegetable feeders were much more subject to it than the flesh feeders. Among the quadrumana the spleen was very frequently the seat of tubercle, but in man this lesion was of rare occurrence. It was worthy of remark, too, that the spleen was often studded with tubercles whilst the liver was in a normal state.

Dr. Cayley showed a specimen of

AMYLOID, OR LARDACEOUS DISEASE OF THE LIVER.

It was a well-marked specimen. The spleen and kidneys had also been affected. The chief interest of the case was, however, that an irregular prominence, and several nodosities, tended to obscure the diagnosis during life.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, October 5.

Dr. Oldham, President, in the chair.

The following gentlemen were elected Fellows:—Dr. M. Bright, J. S. Gaunt, Esq., Dr. Hoffmeister, J. H. Salter, Esq.

CÆSAREAN SECTION.

A case of Cæsarean section, which occurred in 1837, from the papers of the late T. E. Bryant, Esq., was read. The patient was four feet seven inches in height, and rachitic; the antero-posterior diameter of the pelvis was two inches

and a quarter in the dry state, and the transverse diameter four inches. The operation was accomplished without difficulty; but the mother died about thirty-six hours afterwards of low peritonitis. The child lived some weeks, when it died of erysipelas.

Dr. GREENHALGH said he was deeply interested in the Cæsarean operation, of which he had some experience; having performed it four times; having been present in three cases where other Practitioners had operated; and having recently, through the kindness of Dr. Winckel, of Gummersbach, examined three women who had been the subjects of this proceeding. He expressed a conviction that in difficult cases of craniotomy, which were necessarily fatal to the children and too often to the mothers, the lives of most of the former would be spared, and the latter would stand equally as good a chance, by the timely performance of the Cæsarean section; in proof of which he detailed the case of a poor woman upon whom he had operated, who was reduced to such an extreme degree of debility by mollities ossium that those present considered it impossible that she could survive the operation; notwithstanding, she lived three weeks afterwards, and then died from rupture of the transverse colon, owing to the distortion occasioning occlusion of the rectum. The child was born alive, and continued to live. Dr. Greenhalgh strongly urged the early performance of the operation before the membranes were ruptured or the mother exhausted. He considered that the incisions should be made in the linea alba, and as nearly as possible through the centre of the body, and not through the neck, of the uterus, in which, although he admitted there were fewer large vessels, yet there was far less contractile power, and consequently a greater liability to hæmorrhage, as happened in one case which he witnessed. He recommended that the abdominal and uterine wounds should be held together by the fingers of an assistant placed within the extremities of the incisions; that, immediately after the extraction of the fœtus and secundines, the finger should be passed from within through the neck of the uterus into the vagina, so as to secure a free exit for the discharges; that the uterus should be firmly grasped by the hand so as to obtain its firm contraction; and when all fear of hæmorrhage had passed, that the abdominal wound be brought together by the interrupted suture, and still further secured by broad strips of adhesive plaster. As a rule he administered no medicine, but met each symptom by its appropriate remedy. He mentioned one extraordinary case where the patient was up and about five days after the operation; she was, however, the subject of an enormous umbilical hernia.

Dr. BARNES observed that summaries of most of Dr. Winckel's cases would be found in the *British and Foreign Medico-Chirurgical Review*.

Dr. PLAYFAIR said that in the only case of Cæsarean section which he had witnessed a difficulty was met with which he had not seen alluded to in descriptions of the operation, and which certainly had not occurred in the case under discussion, nor apparently in any of those described by Dr. Greenhalgh. In the case in question the uterus was opened near the fundus, and although no time was lost in removing the child, still the uterine parietes contracted with such rapidity and force that the head was caught in the incision, and some difficulty occurred in extracting it and the placenta. This was doubtless a fault on the right side, as it diminished the risk of hæmorrhage; but still it would be well to know how to avoid inconvenience from it. He had thought this might be done by commencing the incision near the lower part of the uterus, instead of at the fundus, when the head might be extracted first. The case to which he alluded also showed the risk of delay before operation. The patient was a healthy woman, who might have done well, but she was allowed to remain so many days in labour before further advice was sought, that when seen the vagina was found in a state of slough.

Dr. OLDHAM recommended the incision to be made towards the lower part of the uterus.

Dr. EASTLAKE showed an Obstetric Binder, for immediate use after parturition, which he had constructed, and which had been made by Mr. Salmon, of Wigmore-street. It was intended to supersede those which lace up like stays. The binder was very simple in its arrangement. It consisted of two parts, which were fastened in front with the greatest ease in less than a minute by means of four lappets with hooks and eyes. It had also a tail bandage which fastened before and behind, and was able to support the diaper and keep the binder in its place. Dr. Eastlake had tried it several times with great satisfaction. The price was from five shillings.

A description of a case of Deformed Arms was read, from Dr. Shortt, accompanied by photographs.

Dr. WYNN WILLIAMS then read a paper on

MISSED LABOUR.

The author alluded to the little notice the subject had received hitherto, and thought the Profession indebted to Dr. M'Clintock for his collection of cases. He wished, however, that some more practical rules were laid down. He then detailed two cases which he considered were of this class. He ventured to suggest that, as soon as attention was called to a case, the accoucheur should, after satisfying himself of the escape of the liquor amnii, the death of the fœtus, and the dilatability of the os, proceed (after allowing a reasonable delay, and after employing the recognised means adopted to cause contraction of the uterus) to turn and deliver.

Dr. BARNES said there was a perfectly ready and safe way of dilating the cervix should the case require it. Should the cervix be rigid, besides the dilators, he would use incisions, which plan he had employed in a case he detailed.

Dr. GREENHALGH did not consider that Dr. Williams' cases could be placed under the head of missed labour, and asked the President, who was the first to use the expression, what he considered the correct definition of the term. He (Dr. Greenhalgh) had never met with a case of missed labour.

Dr. OLDHAM said that he had used the term as the most appropriate he could find. It was a case in which the time of natural labour passed by without any pains, and the child was not expelled.

Dr. BRAXTON HICKS thought it highly important to be certain that the full term had really expired, as it was very difficult to say whether it had been reached in any case before a month at least had elapsed. In the cases recited, he thought that probably, although the children were dead, they would in due time have been expelled by natural efforts.

Further discussion arose, in which Dr. Fox, Dr. Eastlake, and Mr. Owen joined, and to which Dr. Williams replied.

Mr. GANT then gave a careful dissection of the pregnant uterus in a person who had died from "accidental hæmorrhage."

OBITUARY.

DR. JOHN GALLAGHER, D.I.G., R.N.

INTELLIGENCE couched in terms of the deepest regret has been received of the death of this officer by yellow fever, at the scene of his duty—the Naval Hospital, Bermuda. This, in addition to the previously reported death of Dr. Franklyn, Surgeon-Major of the garrison, proclaims the increased dangers that surround the Medical officers engaged in combatting the first emergencies of yellow fever epidemics at Bermuda.

These officers stood at the head of their respective departments when the dreaded scourge of the islands first announced its presence. The necessities of the military service were great; its principal Medical officer fell, and his juniors were attacked by disease; to render every assistance became at once the cordial endeavour of the naval staff. While the Surgeon of the Naval Hospital devoted his services to the soldiers in camp, and contracted among them the attack from which he escaped barely with life, giving up charge only at the moment when reinforcements had arrived from Canada, the Naval Deputy-Inspector-General staid at his post receiving the stricken soldiers into the Naval Hospital. In attending on them in their great distress, he himself contracted the seeds of that fearful malady which brought death to him in five days.

By such noble examples it is best taught what cordial co-operation exists between the Medical officers of the twin services whenever occasion calls for combined action in the dark night of pestilence, or on the field of battle, of which so frequent instances are recorded.

The salient points in the career of this much respected Medical man are worthy of emulation by the rising officers of both services, for all can die but once, and, after an honourable career, his end, however much to be lamented, has come bright with Professional honour.

He served as an Assistant-Surgeon only three years, being promoted to the rank of Surgeon on February 4, 1846, for distinguished conduct in the naval assault of the Obligado Forts on the Parana river, where he was wounded while performing a capital operation under the fire of the forts.

As Surgeon he served in H.M.'s squadrons on the African

and China stations in time of peace, and in the Baltic and Mediterranean fleets during the Russian war, having charge of the Small-pox Hospital on Faro Island in the Baltic.

In consideration of these distinguished services, he was appointed Surgeon of the Naval Hospital at Plymouth on July 4, 1861, and was promoted thence to be Deputy-Inspector-General at Bermuda on March 26, 1864.

He had assumed his new position only a few days when yellow fever commenced in those usually healthy islands. From the first outbreak of the epidemic his zeal in the performance of his duty, combined with his self-denying attention to the wants of the unfortunates placed under his charge, became remarkable, and it was gratifying to his numerous friends at home to receive from him, by the previous mail, assurances of his unimpaired health and conscious ability to carry on duties demanding the exercise of much Christian philanthropy, in addition to Professional zeal.

Won by his urbanity of manner, as well as actuated by his noble example, the officers serving with him have shown how much can be done to alleviate the suffering and diminish the danger of the immediate victims, thus mitigating the ravages of this plague of the tropics, and depriving it of many of its horrors.

Throughout this short but brilliant episode in his uniformly exemplary career, Dr. Gallagher had endeared himself greatly to his subordinates, and gained the esteem of the large government population of the Bermudas, who lament universally his loss.

He arrived at his new post on June 27; yellow fever appeared there early in July; he fell ill on the 14th, and died, peacefully resigned to the Divine will, on September 20, 1864.

METROPOLITAN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

The ordinary monthly meeting of the members of this Association was held on Saturday evening last, in the large room of the Scottish Corporation, Crane-court, Fleet-street—Dr. Druitt in the chair.

Dr. J. Northcote Vinen, the Secretary, having read the minutes of the last meeting,

A conversation arose upon a statement made by the Chairman that he had recently caused an analysis to be made, and detected lead in the water of a house-cistern in his district, although the same water at the sources of supply—the Grand Junction Company's filtering well at Kew—contained no trace of it. In the conrse of his observations, the chairman said he had caused to be analysed the drinking waters of London and Paris. In September the organic impurity in the Grand Junction Company's was 1·70 grains per gallon, and of inorganic, 14·97—total, 16·67. The permanent hardness was 4·8, and the temporary hardness 7·9—total 12·7. The Seine water contained of organic impurity 3·40 grains per gallon; inorganic, 23·84—total 27·24; while the permanent hardness was 9·8 grains, and the temporary 6·2—total, 16. It was thus shown that the London water was superior to the Parisian so far as the chemistry of those two samples could decide it, both in wholesomeness as a drink and for cooking and washing.

Dr. Letheby said there had been a large number of facts collected with regard to the action of water upon lead, from which it appeared that when the quantity of saline matter in water did not exceed nine grains per gallon, it might safely be distributed through leaden pipes, though it could not be kept in leaden cisterns for any time without being charged with it. When iron pipes were jointed on to lead, or solder was used in making joints which contained a large proportion of tin, if the saline matter was abundant in the water, galvanic action took place. This was the case at Claremont some years ago. When the ex-King of the French took up his residence there, he had all the cisterns cleaned out, and iron pipes were attached. The result was, that though previously there had been no sign of metallic impregnation of the water, within a fortnight every person who used it was suffering from lead poison. An analysis enabled him to detect in it as much as two grains of lead per gallon.

Dr. Liddle read a paper "On the Defective Supply of Water for the Domestic Use of the Inhabitants of many of the Districts occupied by the Poor in the Metropolis." He said that his object was to obtain their co-operation in procuring for the poor such a change in the mode of the supply of water that there would be no excuse for the personal dirt and domestic filth which were now too frequently seen amongst them. No one had a right to accuse persons of being dirty when they had no means, owing to the want of water, to be clean. Many of the houses in the metropolis were entirely without any water supply. In his own district, until the last twelve months, several houses, and one or two entire courts, were altogether without any supply. The several methods now in general operation for supplying the poorer localities in London with water were:—1st. The stand-tap. That consisted of a piece of iron pipe fixed to a post, which was either situated in the centre of the court or placed against the wall of one of the houses. The turncock, once every day, for a period varying from twenty minutes to half an hour, turned on the water. During the time the water was flowing, the inhabitants of the court congregated round the stand-post and filled such vessels as they possessed, which they stored in their rooms and used as occasion required, until the next day, when they obtained a fresh supply.

2. In some houses which were provided with yards, the landlord furnished to his tenants a small cask, into which the water flowed daily; and in these vessels it was stored for use.

3. In some courts there was a cistern erected, which was filled daily by the water company. Some of these cisterns were made of slate, others of wrought iron, and others of wood lined with zinc. Here the supply of water was limited by the size of the cistern, which in most cases was not sufficiently capacious for the wants of the inhabitants; and as the water companies did not turn on the water on Sundays, the tenants were usually without any supply on that day.

4. In some of the houses which had no back yards, a cask was put in the cellar, generally close to the privy. In most of these cases the water was unfit for any other purpose than for washing purposes, or for cleaning the house.

5. In other narrow courts, where the houses were also without back yards, a cistern was fixed under the pavement and a pump erected, so that the inhabitants were supplied daily to the extent of the capacity of the cistern.

The 6th mode of supplying water to the inhabitants was that which was obtained from a pipe connected with the main.

The last contrivance for giving a constant supply of water, without occasioning waste, was by the erection of an absolute *water-waste preventer*, an instrument constructed by Messrs. Guest and Chrimes. This machine consisted of two parts:—1st. A two-way cock; 2nd. A cast-iron vessel. Its action was as follows:—The two-way cock was fixed at the bottom of the vessel. One of the waterways of the plug of the cock admitted water into the vessel, and the other allowed it to run out, but both could not be open at the same time, so that a continuous flow of water beyond the contents of the vessel was impossible. The water being connected with the machine by a pipe from the main filled the vessel up to the compressed air-line. The quantity of water which this vessel was capable of holding was always ready for use, and no sooner was it drawn off, than, by reversing the handle of the cock, the vessel was again filled and ready for use, as required. The space required for the erection of one of these patent absolute water-waste preventers did not exceed that of an ordinary street-post.

In some instances the water company had allowed the houses in a court to be supplied from the main, without the intervention of any receptacle provided, as in almost all other places, with a self-closing ball-tap. The water flowed into the butts from a pipe having only a common tap, which was turned on and off at the pleasure of the occupants. There could be scarcely two opinions that the best mode of supplying water to the poor was by that of constant supply, direct from the main, without the intervention of a butt or cistern; for when water for drinking and for domestic purposes could be procured in this way by the labouring classes without much trouble and loss of time—both of which were important to them, and should be economised to the utmost—it might be expected that a great improvement would soon take place in their moral and physical condition.

The objections to all the modes of the supply of water to poor localities, with the exception of that direct from the main, might be thus briefly enumerated. To the intermittent mode of supply by the ordinary stand-post, they were—1st. That, however pure the water might be at its source, it became wholly unfit for use after it had been kept in the close and crowded rooms of the poor; 2nd. That the poor had not vessels of sufficient size to hold the quantity of water which was required for their daily use, so that habits of cleanliness in their houses and persons could not be formed; 3rd. That

when the water was turned on, it involved the necessity of the inhabitants of the court being present with pails, jugs, etc., at the stand-pipes, where scenes of quarrelling often occurred for precedence in obtaining a supply, and the congregating together of the sexes led to demoralisation. The objection to the intervention of butts was, that these vessels were for the most part unfit for retaining water, they being frequently decayed and unprovided with covers, so that the water retained in them soon became spoilt. The objection to cisterns or tanks for the use of the inhabitants of a court was that the vessel being exposed to the sun's rays, the water became heated, and consequently unpalateable. Besides, as it was the business of no one in particular to cleanse the cistern or tank, it was seldom or never cleansed, and the use of the water retained even for twenty-four hours in a dirty receptacle was a fertile source of disease. The persistence, therefore, in any of the modes now in use, with the exception of that direct from the main, was highly objectionable, and ought to be discontinued; while the constant supply at high pressure should be universally adopted.

The Chairman said the Association was much indebted to Dr. Liddle for his very practical paper. In his own district the only cases in which houses were not supplied with water were those in which it had been cut off for non-payment of rates. It would be well if the attention of Medical officers were directed to this point, and that they availed themselves of their statutory powers to compel landlords to reinstate the supply, as the tenants of poor houses often suffered severe privations from this cause.

Mr. Rendell (St. George's, Southwark) spoke of the alarming prevalence of typhoid fever in parts of his district, the more aggravated manifestations of which were in places where the water supply was the most defective.

Dr. Ballard said the defective supply, where cisterns were abundant, often arose from the service-pipes being too small to allow of their being filled during the time the water was turned on.

Dr. Burge, of Hammersmith, referred to the deficient supply of water in the suburban neighbourhoods, even when, as in his own case, the mains of two or three companies passed through the district. This he considered an important matter to be taken up, seeing that railway and other improvements in London were driving large numbers of the poor to settle in these localities.

Dr. Puckle, of Lambeth, said he believed the supply of water furnished by the companies was ample if the receptacles provided by landlords were sufficient for its proper storage.

Mr. Beale called attention to the abundant supply of pure water which the South Essex Company had at Grays, and which might be rendered available for the eastern districts of the metropolis.

In reply to Mr. Elliott, of Stratford, it was stated by Mr. Beale that this water contained, according to Thomson's analysis, 16 grains of carbonate of lime, and something under 1 grain of sulphate of lime; there was no trace of organic matter in it.

Dr. Letheby said it was one of the hardest waters near the metropolis, and if used in its natural state for washing purposes, would require ten times the usual quantity of soap. There was no evidence from any part of the world that chalk waters of that description could be supplied advantageously for domestic purposes. He thought there was a great deal of prejudice existing with regard to the quality of the water at present supplied to London. They were constantly told that the quality might be improved, but from a very large experience, not only the metropolis, but throughout England and the Continent, he could state that there was scarcely a town anywhere so well supplied as London. With regard to quantity, he was not quite sure that it was advantageous to the public to go beyond twenty gallons per head per day. The deficiency in London depended more upon reckless waste and bad arrangements of owners and occupiers of houses than upon the water companies; and the members of this Association would be doing more good by endeavouring to educate the poor to make a better use of the supply they had, than by appealing to Parliament for extra powers or to the water companies to increase the amount of water furnished by them. With regard to the effect of sewage upon the rivers into which it was discharged, there was also much prejudice on this point. No doubt as an abstract question it would be advantageous to have water free from sewage; but the result of analysis showed that six or seven miles below the point of discharge there was no trace of it in the rivers, and that the waters were entirely fit for domestic purposes.

MEDICAL NEWS.

University Intelligence.—Queen's University in Ireland.—At a meeting of the Senate and Professors of the above University, held on Wednesday, the 12th inst., in St. Patrick's Hall, Dublin Castle, the Degree of M.D. was conferred by the Lord Chancellor of Ireland, Vice-Chancellor of the University, upon the following gentlemen:—

First Class.—None.

Second Class.—Francis Duffy, Galway; Alexander H. M. M'Murtry, Belfast; Alexander Porter, Belfast.

Third Class.—John Wall, B.A., Cork.

Unclassed.—Andrew Brown, Galway; Albert John Clapp, Cork; Henry Cook, Cork; Lawrence Corban, Cork; Frederick Daly, Cork; James Charles Foley, Cork; Richard Malcom Graham, Cork; Humph. Carden Gillespie, Cork; John Haddon, Cork; J. J. Hanrahan, Galway; H. M'Naughten Jones, Cork; James Kelly, Cork; J. Kennedy, Belfast; James Leatham, Belfast; Henry Lupton, Galway; John Winspeare M'Carthy, Cork; William M'Connell, Belfast; Samuel M'Crea, Belfast and Galway; James M'Cully, Belfast: Thomas French Mullen, Galway; John Watson Mulligan, Belfast; Thos. O'Farrell, M.A., Galway; Patrick O'Keeffe, Cork; Garvin Orr, Belfast; Dean Philip Palmer, Galway; Angus Porter, Belfast; John William Purefoy, Galway; Patrick J. Shannon, Galway; Parker Arthur Smith, Cork; William Thomson, Belfast; John George Thornley, Belfast; J. C. Thorp, Galway; Edwin Wheeler, Belfast; Richard Gilbert Williams, Cork; John Denham, M.D., Edinburgh, *ad eundem;* James Stannus Hughes, M.D., Glasgow, *ad eundem;* Robert M'Donnell, M.D., University of Dublin, *ad eundem;* Edward Perceval Wright, M.D., University of Dublin, *ad eundem.*

The result of the First University Examination in Medicine is as follows:—

Third Class.—Andrew Mullan, Belfast and Cork.

Unclassed.—John Albert Anderson, Belfast; Andrew Brown, Galway; Henry Thomas Browne, Cork; Cornelius Buckley, Cork; John James Charles, Belfast; Joseph W. Chestnut, Belfast; William Ellis Clendinnon, Galway; Thomas St. John Clerke, Cork; William Collins, Cork; Henry Comerford, Galway; James Connolly, Galway; William Conway, Galway; George M. Davis, Belfast; Henry Donovan, Cork; Francis Duffy, Galway; James Charles Foley, Cork; Anthony Gorham, Galway; George Gray, Belfast; John Haddon, Cork; Emerson Wilson Henry, Belfast; Thomas Jas. Higgins, Belfast; Oscar D. Honiball, Cork; Ulick Jennings, Galway; David J. Johnston, Belfast; William B. Johnstone, Cork; Jas. Leathem, Belfast; Mark Long, Cork; Henry Lupton, Galway; Robert Peel M'Alevy, Belfast; Edward M'Crystal, Belfast; S. D. Millar, Belfast; John Watson Mulligan, Galway and Belfast; E. F. Nelson, Belfast; John Henry Newman, Cork; James J. O'Grady, Cork; Charles H. Roche, Cork; J. E. Saunderson, Galway; J. C. Thorp, Galway; Robert Turner, Belfast.

Royal College of Physicians of London.—At a general meeting of the Fellows, held on Wednesday, October 19, the following gentlemen, having undergone the necessary Examination, and satisfied the College of their proficiency in the science and practice of Medicine, Surgery, and Midwifery, were duly admitted to practise Physic as Licentiates of the College:—

William Lewington Barker, Hungerford; Nicholas William Barrington, P. and O. Co.'s Service; Joseph Silverthorne Belcher, M D. St. Andrews, 3, New-road, Wellclose-square; William Maxwell Burman, Wath-upon-Dearme; Walter Chippendale, M.D. St. Andrews, Palermo, Sicily; Anthony Charles Colborne, 53, Tachbrook-street, Pimlico; John Davey Eames, Bourton-on-the-Water; Frederick Stuart Ferguson, M.D. Edin., Bolton; John Temperley Gray, 1, Portland-terrace, Dalston-lane; Benjamin Terry Hodge, Sidmouth; James Lattey, St. George's Hospital; Thomas Leigh, St. George's Hospital; Robert Rosier Merry, Chelmsford; John Oliphant, M.D. Edin., 24, Alfred-street, Bedford-square; John Jones Phillips, Guy's Hospital; Chauncy Puzey, Guy's Hospital; Carl Theodor Schmid, M.D. Tubingen, 33, Edwards-square, Kensington; and John David Williams, Bala, North Wales.

The following gentlemen were reported by the Examiners to have passed the primary Professional Examination:—

Paris Bradshawe, King's College; William Hoffmeister, University College; Richard Bottomley Nowell, Guy's Hospital; William Alfred Renshaw, Manchester; Charles Edward Heron Rogers, Middlesex Hospital; John Swindale, Middlesex Hospital; Alexander McIvor Tindall, St. Bartholomew's Hospital; and John Holden Webb, St. Mary's Hospital.

Royal College of Surgeons of England.—The following Members of the College, having undergone the necessary Examinations, were admitted Licentiates in Midwifery at a meeting of the Board on the 19th inst.:—

Charles Durrant Pearless, East Grinstead, Diploma of Membership dated January 26, 1864; John Powdrell, Farndon, near Chester, April 27, 1864; Charles James Wills, Stockwell, May 24, 1864; George Vincent Langworthy, Modbury, Devon, April 27, 1864; Henry Cripps Lawrence, Kingston-on-Thames, July 27, 1864; and Thomas Fairbank, Theberton-street, Islington, July 27, 1864, Students of St. Bartholomew's Hospital. Robert Edward Owen, Beaumaris, May 12, 1864, Guy's Hospital; William Bailey, Tipton, Staffordshire, July 27, 1864, and Alfred Orlando Jones, Milner-square, May 13, 1864, St. Thomas's Hospital; Martindale Cowslade Ward, Markham square, May 10, 1864, St. George's Hospital; Edgar Athelstane Browne, Notting-hill, April 26, 1864, Charing-cross Hospital; William Yates, Richmond, April 27, 1864, Westminster Hospital; and William Allin Thompson, Oxford, May 2, 1861, King's College.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, October 13, 1864 :—

Henry Carder Herbert, London; Charles John Pyle, Amesbury, Wilts; John Ablewhite Smith, Louth, Lincolnshire; Thomas Hewlitt Worger, Hospital, Canterbury; Griffith Llewelyn Carreg, Birmingham.

The following Gentleman also on the same day passed his First Examination :—

Thomas Drake Leigh, Liverpool Royal Infirmary.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ALLINGHAM, JAMES H., M.R.C.S., Eng., has been appointed Dental Surgeon to the London City Mission.

DAY, EDWIN E., M.R.C.P. Lond., has been appointed Physician-Accoucheur to the Farringdon General Dispensary and Lying-in Charity.

RITCHIE, CHARLES, M.D. Glasg., has been elected President of the Faculty of Physicians and Surgeons, Glasgow.

ROBERTS, JOHN, L.R.C.P. Lond., has been elected Resident Surgeon to St. Pancras Workhouse and Infirmary.

SHORTO, W. B., M.R.C.S. Eng., has been elected House-Surgeon to the Royal South Hants Infirmary, Southampton.

DEATHS.

CASS, WILLIAM LEONARD, M.R.C.S. Eng., at Goole, Yorkshire, on September 23, aged 24.

DUNAND, Dr. M. D., at Boulogne-sur-Mer, on October 17, aged 80.

HALFORD, EDWARD, M.R.C.S. Eng., at 1, City-road, Finsbury-square, on October 12, aged 45.

MACLEAN, CHARLES, M.D., at Leicester-place, Rathmines, Dublin, on October 4, late Inspector-General of Army Hospitals.

MCDOUGALL, JOHN, L.F.R.S. Glasg., at Old Kilpatrick, Dumbartonshire, on October 5.

REECE, GEORGE, M.R.C.S.I., of 45, Sussex-gardens, Hyde-park, at Malvern, on October 1, aged 52.

SKEGG, ROBERT, L.R.C.P. Edin., at St. Martin's-place, Trafalgar-square, London, on October 17, aged 61.

VOST, JOSEPH, M.D. Edin., at Queen-street, Stirling, on October 8, late of Kelso.

WALKER, ROBERT, M.R.C.S. Eng., at Westfield, Cupar, Fife, on October 5.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the annual meeting of the above College, held on the 18th inst., being St. Luke's day, the following officers were elected for the ensuing year :—*President*—Thomas E. Beatty, M.D. *Vice-President*—George Johnston, M.D. *Censors*—G. Johnston, M.D., H. Kennedy, M.D., H. Freke, M.D., and R. Lyons, M.D. *Treasurer*—Henry Law Dwyer, M.D. *Registrar*—Lombe Atthill, M.D. *Librarian*—George Alexander Kennedy, M.D. *Professor of Midwifery*—Edward B. Sinclair, M.D. *Professor of Medical Jurisprudence*—Robert Travers, M.D. *Examiners in Midwifery*—Benjamin G. Guinness, M.D., and W. B. Jennings, M.D. *Representative on the General Medical Council*—Aquilla Smith, M.D.

THE HUNTERIAN ORATION.—Professor Partridge, of King's College, has consented to deliver the biennial oration in memory of Hunter in February next, at the Royal College of Surgeons.

PRELIMINARY EXAMINATIONS.—It may be interesting to those students who have been unable to enter on their Professional studies this session, in consequence of not having passed the required Preliminary Examinations, to know that an opportunity will be afforded them in December next, when the College of Surgeons will hold an examination, after which all those proving successful will be able to register from that time only to the end of the session.

NON-COMBATANT OFFICERS.—THE LATE DR. CLARKE, 15TH FOOT.—This young officer, who has perished among the seven military Surgeons in the epidemic at Bermuda, is the second of one family in the Army Medical Department who has lost his life in the service. His brother, Assistant-Surgeon William Clarke, of the 35th Regiment, when the other two officers were killed in the affair at Arrah, in India, and the men were retreating, drew his sword and rallied them until shot down himself mortally wounded. John Clarke served throughout the war in the Crimea, including the Alma and Inkerman, through the whole of the Indian campaign under Sir Hugh Rose. His services in the Crimea were considered great, and he was brought to notice in dispatches in the Indian mutiny. He was generally beloved and respected by both officers and men, and had made many real friends among officers of very high rank. He died September 4, 1864.

ANATOMY IN THE EAST.—In an elaborate report of the Principal (Dr. Norman Chevers) of the Medical College, Bengal, that gentleman states that no less than 1112 subjects had been dissected during the past year in the Medical College, and that the total number of individuals treated during the year as in-patients of the Hospital, exclusive of those treated in the Eye Infirmary, amounted to 4885. In concluding his report the learned Professor stated that in March last the Maharajah of Jyepore, a native prince of great enlightenment, who is very earnest in advancing Medical education in his own state, after having visited the College, was so pleased with all the arrangements that he munificently presented the sum of 1000 rupees "to be devoted to any purpose the managers of the institution may determine."

YELLOW FEVER AT BERMUDA.—The *Montreal Herald* of September 24 says :—"Out of eleven Surgeons who left this city on the 17th ult., we have had within thirty days the intelligence that five have been assailed by the fever, and that two, if not three, have died. As an example of the extreme suddenness and virulence of the attacks, it is mentioned that when the steamer *St. George* was leaving the island on her last trip five men rowing to the vessel in one boat were attacked before they came alongside, and had to put back and go into Hospital. We regret to say that we have received a communication, stating that not only were the steps which every well-informed person understands to be usual and efficient for preventing or mitigating such calamities omitted, but also that the advice of scientific men, professionally tendered, was disregarded. The use of open-air lodgings on high and dry ground, in an atmosphere fresh from contamination is thoroughly understood by every civilian, and in frequent instances bodies of troops attacked by pestilence of one kind or another have ceased to lose a man from the moment that they were marched out of barracks to bivouac on the turf and live out of doors, free from the death-dealing miasma of their close and infected quarters. Yet it would appear from the information furnished by our correspondent that this well-known method of saving the lives of soldiers did not suggest itself, and when suggested by others was rejected by an officer sufficiently experienced and high in rank to have military command of the station, and that the men were kept encamped on low ground, and the military Hospital not only not disused (as was advised by the Medical officers), but overcrowded, though its walls were impregnated with yellow fever poison. For the sake of an old officer, and of the service to which he belongs, we must express a sincere hope that there were some circumstances not known to the gentleman who has written to us. We learn that the fever was conveyed to Bermuda, where it is a very unfrequent visitor, by the blockade runners. They have also taken it to Nassau, where it is raging almost as badly as at Bermuda. The crews of these vessels have also themselves suffered very severely from the disease, and some of them are left without officers or crew, except, perhaps, a solitary negro cook or seaman."

HEREDITARY OCCURRENCE OF DIABETES MELLITUS.—Dr. Moser relates that a peasant woman, aged 47, consulted him stating that during three weeks she had suffered from intense thirst and passed large quantities of urine. She added that on tasting her urine she found it to be sweet, and that her father, his mother, and two of his sisters had died of diabetes. Examining some urine which she passed in his presence, he found that it exhibited a specific gravity of 1045° and contained a great deal of sugar. Three weeks later the son of this woman, a well-grown, strong lad of 15, exhibited the same symptom, his urine containing also much sugar and having a specific gravity of 1040. Thus diabetes was present in four immediately succeeding generations of this family.—*Berlin Med. Woch.*, No. 27.

AN EXCUSABLE ERROR IN DIAGNOSIS.—A labourer received a blow on the thorax, spit blood, and complained of a severe pain in the front of the chest. The Physician consulted attributed the hæmoptysis to the blow he had received. This, however, was a complete error, illustrating the fact that the sources of error are so numerous in Medicine that the observer must always think twice before pronouncing an opinion. This man, after receiving the blow, while slaking his thirst, had swallowed a leech, which fixed itself behind the tonsil, and gave rise to the discharge of blood. It could only be detached by drawing in fumes of tobacco by the mouth.—*L'Union Méd.*, No. 95.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A Brighton Chemist will see his request answered by anticipation.

The article in the *Dublin Express* shall be noticed next week.

A Student.—We have no doubt that British University degrees in Medicine and Surgery, if registered, would be recognised as qualifications for Government Medical situations. We do not think that the diplomas of the Colleges of Physicians and Surgeons add any *legal* value to the preceding.

The *Journal of Gas-Lighting, Water Supply, and Sanitary Improvement*, published by King, 11, Bolt-court, contains a good account of all the subjects indicated by the title. We are indebted to it for a report of the meeting of the Medical Officers of Health.

In the *Edinburgh Veterinary Review*, July, 1864, published at Edinburgh, by Maclachlan and Stewart, will be found papers on the Identity of the Pleuropneumonia in Cattle with the Measles in the Human Subject.

Ophthalmologist.—We do not think that the reputation of any professional work can be benefited by a review in *Lloyd's Weekly Newspaper*. But it would be manifestly unjust to class the notice of the work sent us with the filthy and obscene advertisements of the wretches who make that paper the channel through which they impose on the public.

Justitia.—We are by no means convinced of the benefits likely to accrue to the community from the operations of the Society for the Protection of Women, but we are quite certain that the practice of issuing advertisements, commented on in our last issue, is monstrous and wrong in the extreme. With regard to the sister movement, the "Female Medical," we know that there has been a good deal of "nasty twaddle" circulating amongst its promoters under the pretence of high morality and anxiety for the purity of the sex. We have private and reliable information on the matter. We repeat what we said last week, that "with some minds a smack of lechery is a wonderful stimulant to move them in the cause of public morality."

Corrigendum.—Professor Hughes Bennett is desirous of rectifying an omission in our report of his speech in the discussion on the sewage question at the Bath Meeting of the British Association. In reference to the Military Hospitals at Naples, he said "that *the latrines* presented a dirty condition and effluvium which he could not attempt to describe." He adds that these institutions generally, as far as cleanliness is concerned, exhibited a favourable contrast to the condition of the General Hospital. In neither of them, however, was there any amount of typhoid fever.

In Mr. Gaskoin's letter on "Flint Weapons," in our last impression, p. 429, *for* "copper (bronze?) axes" *read* "copper and bronze axes."

The Indian Medical Service.

*** The following letter was forwarded to us by two of the staff of Guy's Hospital at the request of the writer :—

"August 27.

"My dear Mr. —— or Mr. ——,—Kindly give the following explanation to the students concerning Sir Charles Wood's late vaunted Medical Warrant, so that they may not come out here under false pretences; I mean the last one, sanctioned in Sir Charles Wood's despatch, dated May 16, 1864, and in which he states that Medical officers are to have the same rate of pay as military officers of corresponding rank; but, as if to give the lie direct to this, he lays down a scale of pay herewith enclosed.

"The order reads very fair, but on inquiry we have fouud out that we are only to have the net pay of officers (military) of corresponding rank; the great superiority of their pay is made up by what are called Indian allowances. Formerly Medical officers used to get allowances, which by this last Warrant are all swept away.

"In my own case, as an Assistant-Surgeon of ten years' service, my pay is now £39 4s. 9d. By the old Warrant, £52 10s. 6d. per month; so I am a loser of £13 5s. 10d. a month, or, correctly speaking, I should be a loser by that much if I was to give up my present civil appointment and go back to regimental duty.

"If not taxing your kindness too much, will you, after showing this to the students, send it to the Editor of some Medical paper?

"I need not tell you, after perusing this, that the Indian Medical officers are perfectly furious, but, having no friends in Parliament, they are perfectly helpless.

"Believe me yours very truly, an old Guyite,
"* * *"

"*Pay per Month of Military and Medical Officers doing Duty with Regiments in India.*

	Per Month.		Per Month.
Surgeons-Major of 20 years' service (ranking with Lieut.-Colonels)	£84 15 6	Lieut.-Col.	£142 15 6
Surgeons of 15 years' service (ranking with Majors)	£67 15 0	Major	£91 1 11
Assistant-Surgeons of 6 years' service and upwards (ranking with Captains)	£39 4 9	Captain	£60 8 0½
Assistant-Surgeons under 6 years' service (ranking with Lieutenants)	£28 13 0	Lieutenant	£32 12 0

"About one-third of the above scale of pay is cut off monthly if you are married, and one-fourth if single, for military, Medical, mess, and band funds, income-tax, and stamps."

The "Dublin Medical Press" on the Army Medical Department.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I am an Irishman, and I possess considerable experience of the Army Medical Department—quite sufficient to justify me in giving an opinion regarding it.

In common with many others, I deeply regret the course pursued by certain portions of the Dublin Medical press, as most injurious to the cause of the Army Medical officer, and most shortsighted and false to the true interests of the Medical Profession. In an article in the *Dublin Medical Press* of October 12, on the "Demerits of the Army Medical Service," the writer would have us believe that the grievances, of which the Army Medical officers have been so long complaining (and which the English Medical press have so thoroughly exposed), have a very slight foundation to rest upon, and that whatever they are they can only be redressed by earnest and persistent remonstrance through the public press and the House of Commons. Now, Sir, the whole Army Medical Department knows and feels that neither the Horse Guards nor the War Office will yield an iota to earnest and persistent remonstrance, so long as the ranks of the Medical service can be recruited anyhow or anywhere. When the unfortunate Irish student has passed ten years in the rank of an Assistant-Surgeon, and, having taken his part in wars and foreign service, has been sent—like the late lamented Dr. Milroy—to a future pestilence in Bermuda or elsewhere, depend upon it his eyes will be open enough to the reality of his position, and he will be able to decide whether the statements of the Army Medical officers and the English Medical press or those of the Dublin Medical press have been most worthy of credence.

That long periods of foreign service in unhealthy climates, in a subordinate rank, and on small pay, uncertain position, onerous and responsible duties, a very probable loss of health, and a small amount of leave will be the portion of a good many men now at Netley is the opinion of

October, 1864. A Surgeon.

The Griffin Testimonial Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The following subscriptions have been further received on behalf of the above fund:—John Ward, Esq., Perristone, £1 1s.; G. W. Bagg, Esq., Southam, 5s.; J. Blackshaw, Esq., Stockport, £1 1s.; Osborne Johnson, Esq., Newark, 10s. 6d.; W. W. Pearce, Esq., Ashby-de-la-Zouch, 10s.; R. Kerswill, Esq., St. Germans, 10s. 6d.; A. G. Roper, Esq., Croydon, £1 1s.; G. W. Pretty, Esq., Hoxne, 10s.; Dr. Plumbe, Maidenhead, 10s.; J. Westell, Esq., Maidenhead, £1; L. Wooldridge, Esq., Whitechurch, 5s.; T. Plowman, Esq., Langport, 5s. 6d.; Dr. Wm. Rayner, Stockport, £1 1s.; G. Terry, Esq., Frome, 5s.; E. Cockey, Esq., Frome, 5s. Amount previously announced, £80 9s. Received at the *Lancet* Office, £5 13s.

I am, &c. Robert Fowler, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, October 19.

Criminal Abortion.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Having read your remarks on this case, allow me to correct an error that you have fallen into with respect to the evidence given at the inquest by Mr. Thomas Stowell, M.R.C.S., and not, as you evidently suppose, a chemist and druggist. As the particulars have been given, your readers are in possession of the facts, and it is therefore unnecessary that I should again refer to them, further than to say that neither Messrs. Garratt, Johnson, nor Stowell are members of the Pharmaceutical Society, and consequently the Society has no influence over them, nor should it be charged with special duties beyond its cognizance. I am afraid the sins of omission and commission of the chemists and druggists are quite enough without having to bear a burden that does not belong to them; but are the Medical men quite free from blame? Do they never trespass on the province of the druggist? I think you will admit that some of them do; then let us endeavour mutually to keep the proper line of demarcation, and the best way to accomplish such an end, on behalf of the chemists and druggists, will be the educational means offered by the Pharmaceutical Society. The field of labour is wide enough for the professor and his fellow worker, the druggist; then let us endeavour, by mutual forbearance and co-operation, to aid each other, instead of doing—as is too frequently the case—the opposite, and thereby weakening the confidence of the public in both. I am, &c.

Brighton. A Member of the P.S.

Indian Medical Service.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—As I perceive that an erroneous impression prevails at "home" that the position as regards pay and promotion of Medical officers in India has been greatly improved by the so-called "New Medical Warrent," may I request you to publish the following short statement of my case, and sincerely do I hope that it may be the means of preventing some young Professional brother from falling into the trap out of which, to my sorrow, I find it now too late to extricate myself.

I am an Assistant-Surgeon in the Indian Medical service, and of about five years' service. It fell to my lot to take Medical charge of a native infantry regiment on the 16th June last, one day after the "New Warrant" was published. Now, the old rate of pay for this charge was, in English money, £42 2s. 3d. per mensem; but by the very liberal provisions of the recent Warrant my pay has been reduced to £33 10s., or, in other words, after continuous service for five years in an unhealthy tropical climate, I find that the value of my services has, in the eye of Government, depreciated to the extent of £108 yearly! I receive that amount less per annum now than I did three months after my arrival in India, for performing exactly the same duties. Before leaving the subject of pay, I would just contrast my position with that of a young subaltern doing duty with my regiment. He is under two years' service; I am above five. He is under 20 years of age; I shall too soon be 30. He is considered by Government entitled to a staff salary of £10 per mensem, in addition to his pay; my duties are not considered to entitle me to any staff salary. Our pay is exactly the same; but his deductions on account of fund subscriptions are £3 12s. per mensem less than mine; consequently, his nett pay is £32 8s., my nett pay is £28 18s. only. I will not say a word on the comparative importance of our respective duties, but the fact is patent that this young officer is infinitely better off than I am; and at an age, too,

when I was working hard to qualify myself to enter the Profession. Surely no Profession is so well entitled as ours to the designation of "liberal."

As regards promotion, a slight increase of pay in the higher ranks of the service had the effect—which I suppose was anticipated by Sir C. Wood—of inducing a large number of Surgeon-Majors to continue in the service, and thus of retarding indefinitely promotion in the junior grades. I am now five years in the service, and if I get promotion by the time I am eighteen years in it, I shall consider myself fortunate.

In conclusion, permit me to say how grateful we all feel in India for the able support given us by yourself and the rest of the Medical press in endeavouring to get just recognition of our services. I am, &c.

August 26. FIDES FRACTA.

THE NEW MAN'S DREAM.

I'd been in town a little while,
My scalpels were yet new,
When one dark morn the guv'nor wrote
A very hasty questioning note,
And said "What do you do?"

Dissecting-room I did not know,
Methought 'twas time I did:
The matter soon I well revolved,
And quite as soon, I well resolved
To do as I'd been bid.

I vow 'twas dark as pitch that day;
So thick a mist o'erspread,
As through the streets you groped a way,
'Twas more like midnight than midday,
Beckoning men to bed.

And midday lamps I passed—all lit,
And reached the College door;
And soon I found myself in place,
Fast cutting some one of my race
For the untold good of more.

A candle at the table head
Gave there a ghastly light,
Another on the dead man's breast
Answered me by far the best
(Of "uppers" I'd the "right").

I laboured long that misty day,
Nor laboured I in vain;
The guv'nor's note had come that morn,
That eve one went from his first-born,
To bring peace back again.

The letter gone—off to my chum
I haste the night to spend.
I was a first-year's man, you see,
And all was fresh and new to me,
So was it to my friend.

Yet that night in his rooms we stayed,
Said I "This work must end!"
Of proper things a score I planned,
On hearing which my friend looked bland.
Cried he, "We'll try to mend."

But it was late when in my door
I turned the useful key,
And hastened to my lonely bed,
Remembering what my guv'nor said,
About the busy bee.

A restless night! upon my couch
I tossed till morning grey;
When pity from the drowsy god
Gave me the chance of a short nod,
Just with the break of day.

But oh! that I had tossed still more,
Had tossed to toss again!
I dreamt a dream of fearful dreams,
That bathed me in perspiring streams,
And racked my restless brain.

I stand in chains, I know not where,
'Mid odours not the best!
I try to move—I cannot move—
For bonds around my limbs are wove;
A dead weight on my breast!

Darkness, darkness everywhere,
Everywhere a chill;
Everywhere a dampness cold,
Everywhere a clammy mould,
The air with horrors fill.

Above my head a murkiness
Impenetrably high!
Below my feet the depths profound
Drop deeply down—and know no bound;
Beneath no earth—above no sky!

I am upon a pinnacle
High—but ignobly grand—
Whereof th' foundation-stone doth lie
Beyond the ken of human eye—
On such I seem to stand.

And through the air come murmurs,
Then mocking laughter loud;
I stand and hear, but cannot see,
While others move, strong chains hold me,
Fast-fettered in my shroud!

But soon a ghastly light begins
To shed around dull rays;
And then a sight burst on my eyes,
That horror's pangs on horrors rise,
As on the scene I gaze!

I stand within a spacious hall,
The central spot hold I,
The murky depths of darkness gone,
I see I stand on ground alone;
(The roof conceals the sky).

Around the hall are stretchers ranged—
A horrible array;
For each one bears the form of man,
Headless or limbless—worn or wan—
Masses of pallid clay!

A lamp at every table foot;
At every head a light;
Another on each ghastly chest
Strikes horror to the laden breast
Of me, too luckless wight!

What tongue in truthful words can tell,
What pen the scene pourtray!
Around the dead fierce beings throng,
All shapes and sizes, weak and strong,
In terrible array?

A murky darkness seems to be,
The numerous groups between,
Around a ghostly shadow reigns—
Amid the beams the dull light wanes—
'Tis horrible, I ween!

Each little group itself a world,
The dead, the prize to win!
Each for himself in strife for prey;
(The Devil for them all some day,
I think, myself, within).

Some calmly eager in their toil
Do seem to labour long;
Some speak no word, but gloating prey;
Some make their work a pastime gay
With laughter and with song.

But horrid knives they each one bear,
And hew the dead at will;
I fear them all, I fear them all,
I tremble lest on me they fall,
And with their knives me kill.

From group to group there passes on
A form methinks I know;
He serveth every one and all,
He cometh at their beck and call,
With step that's ever slow.

Now stands he by some horrid group
And seizes on his spoils!
Now passes on, but craveth more,
And as he adds to his fell store,
My heart within recoils.

His grizzly beard hangs lowly down,
His hair is matted thick;
But hair, tho' thick, can never hide
The fearful grin of mouth so wide
That makes me feel so sick.

Of head so large (my pen again
Is sated with its food)
I cannot tell; nor of his hair,
Nor eyes, of which he had a pair,
Both shot with streaks of blood!

A scraper in his hand he held;
And ever in his train
Of fiery flavours th' essence left,
That, wafted, me of breath bereft,
And made me writhe with pain.

He trims a light at times, and seems
A Mephistopheles;
And gazing o'er his form I see
What strikes more dread of him in me—
A dangling bunch of keys!

I may not turn—I see him come—
Through light and shade he hies!
I wish to stay, I cannot stay,
For now he beckons me away
To where a dead man lies!

He puts a knife within my hand,
"The upper right," he says;
The dim light sees it pierce the flesh
That, horror! quivers with each gash
Before my trembling gaze.

The body rises on its couch,
It opens its dull eyes
To gaze on me—I shrinking quake,
I try to yell, but only shake,
Abortive are my cries!

The dead man shows the fatal arm,
"The cause of all my woe,"
And while in shreds drops off the skin
From every finger pale and thin,
He speaks in accents slow:

And now round us the demons throng,
From all parts of the hall!
Their hands uncouth with dripping gore,
My mind 'gin fill with mystic lore,
I fear, I fear them all!

"The tale I tell you soon will own
Is dreadful to be told;
But I must tell my fearful tale,
I must this mortal man assail,
For he in sin is old.

"Well, to this place the porter here
Me rattled o'er the stones,
My uppers were quite free from fat,
You might have learnt your muscles pat,
And surface marks of bones.

"My upper right belonged to *him*,
To well dissect he failed;
He's left me here to rot unblest,
And of this arm and dexter breast
Has not himself availed.

"My ghost should visit him, but then
He has a ghost likewise:
His punishment on you depends,
I leave it in the hands of friends,
But this I will advise.

"He is now dead and here below,
His flesh wants nought forsooth;
And science loves with death to dwell,
So seize at once she might as well
This well-developed youth!

"His muscles are as good as mine,
The porter here doth say."
He ceasing, falls: the porter nods
A nod which me no good forbodes,
Then yells the whole array:

"His muscles will most splendid be,
Tho' shaky are his nerves!"
And then with many a savage glance,
Together round my form they dance,
In closer-coming curves.

Fast-fettered still I cannot run,
My foes I cannot face!
The light is in its socket flaring,
Each dim-lit face on me is glaring,
Its devilish grimace!

Nearer, near! onward now they come!
Their scalpels o'er me hang!
I see the blows I cannot shun—
Oh, chains, give way! one effort—one!
And,——out of bed I bang!

Liverpool, October 1. PEARSON BRANTETH.

COMMUNICATIONS have been received from—

Mr. B. LUMLEY; Dr. J. WHITEHEAD; Dr. C. BUCKLEY; Mr. W. J. BENNETT; Dr. J. W. GILLESPIE; ROYAL MEDICAL AND CHIRURGICAL SOCIETY; FIDES FRACTA; Mr. G. GASKOIN; Mr. A. T. NORTON; Dr. TUCKER; JUSTITIA; PATHOLOGICAL SOCIETY OF LONDON; METROPOLITAN FREE HOSPITAL; Dr. H. MACCORMAC; APOTHECARIES' HALL; Mr. JAMES BRUCE; A BRIGHTON CHEMIST; Mr. THOMAS H. WORGER; Mr. HICKFORD; Dr. CHARLES KIDD; Mr. EDWARD COCK; AN OLD GUYITE; A SURGEON; Dr. HUGHES BENNETT; Dr. GAIRDNER; Dr. JOHN H. BLOUNT; Mr. S. WHITFORD; Mr. F. D. FLETCHER; Dr. MORRIS JONES; Dr. W. ALEXANDER; Dr. STEPHENS; Mr. ROBERT DONALDSON; Mr. R. SUMNER; Mr. ROWLAND SMITH; Mr. F. MINETT; Dr. ROBERT FOWLER; A MEMBER OF THE P. S.; H. H.; OBSTETRICAL SOCIETY OF LONDON; ROYAL COLLEGE OF PHYSICIANS; Dr. E. E. DAY.

BOOKS RECEIVED.

Ophthalmic Hospital Reports. Vol. IV. Part 2.

*** There are several very interesting papers in this number of the Reports. Mr. Bowman contributes one (to be continued) "On Needle Operations in Cases of Detached Retina," and Mr. Rogers translates an essay by Professor Von Graefe on the same subject. The object of the operation is, in the words of Mr. Bowman, "to open a permanent communication inwards from the sub-retinal space, under the idea of allowing the effused fluid to escape into the vitreous chamber, rather than to spread further between the retina and choroid, thereby further severing their organic connexion." The idea is a bold one, and has, we believe, somewhat flustered some of the more elderly ophthalmologists; but the high Professional position of its proposers entitles it to careful consideration, more especially as the eyes submitted to the operation are, as a rule, otherwise incurable. Mr. Bowman uses two fine needles, which he introduces separately, and then, by crossing their points, as in the ordinary case of tearing up an opaque capsule, lacerates the detached retina to the required extent. Von Graefe punctures the retina with a cutting needle with two very sharp edges. The results arrived at by each of the operators have been the same. In no case have any bad consequences followed; in some cases very decided improvement has occurred. In some the improvement has been very slight; in others there has been no improvement whatever. The operation is still on its trial. Mr. Critchett relates a case of congenital nuclear cataract treated by iridesis, with some modifications calculated to draw the iris over the opaque nucleus, leaving the clear marginal part alone exposed. An ingenious and successful operation. Mr. Pridgin Teale describes a method of removing soft cataracts by suction by means of the mouth, through the medium of the "suction-curette," which he has invented for the purpose. He has operated successfully in three cases. Interesting papers by Messrs. Hulke, Lawson, Hutchinson, and others complete a very successful number.

Berliner Klinische Wochenschrift. Nos. 1 to 16.

*** A new periodical, the *Weekly Clinical Journal*, has been started in Berlin, of which we have had the pleasure of seeing the first numbers. Its aim is, by placing on record the experience of the leading men of the Berlin School and others, to bridge over the gulf between those who concentrate their energies on single lines of inquiry and those who give to Medical science, as a whole, its practical application; and from the mode in which its design is carried out it seems likely to render good service to the cause of practical Medicine. Among the papers contained in it is a report from Frerichs on Diseases of the Spinal Cord; from Traube on Diphtheritic and other Affections of the Larynx; from Von Gräfe on Paralysis of the Motor Nerves of the Eye. All who are interested in any particular class of cases would find it useful to consult its pages, from which nothing that is practical appears to be excluded.

Letter addressed to the Poor-law Board. By R. Griffin, J.P., M.R.C.S.

*** We all know the points mainly insisted upon by Mr. Griffin. No doubt the Poor-law Board consider him a very troublesome man, for they have discovered that he has too much of the bull-dog about him to be shaken off very readily. However, it seems that he considers "further agitation for the present, at least, is useless."

Practical Observations on Diphtheria and Erysipelas. By Charles Bell, M.D. London: John Churchill and Sons.

*** This pamphlet is written mainly to advocate the use of the muriated tincture of iron in these affections.

Accidents to Volunteers. A Lecture delivered to the City of Oxford Companies of the Oxfordshire Rifle Volunteers. By E. L. Hussey, Ensign.

*** The author of this pamphlet is one of the Surgeons of the Radcliffe Infirmary. The advice he gives to his brethren in arms is on the whole judicious.

Etude Clinique sur Divers Symptômes Spinaux observes dans la Fièvre Typhoïde. Par le Dr. E. Tritz. Paris: Delahaye. 1864.

*** The simple fact that typhoid fever has been mistaken, among other things, for spinal or cerebro-spinal meningitis, is sufficient warranty for the author's attempt to give a complete description of those symptoms in the course of the former disease which are referable to the spinal cord.

Remarks on Syphilis and its Treatment. By Henry Veale, M.D., Assistant-Surgeon, R.A. Edinburgh: Oliver and Boyd. 1864.

*** This being the work of an army Surgeon deserves careful study. His opinions on the use of cauterants, on the conservative treatment of buboes, or indurated chancre, and on the use of mercury, are all worth reading.

The Journal of Mental Science. July, 1864. London: John Churchill and Sons.

*** Appended to this number is the English version of "A Catechism on the Necessity and Possibility of a Radical Reform in the Treatment of Insanity," by the author of "The Gheel Question."

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 15, 1864.

BIRTHS.

Births of Boys, 1020; Girls, 1052; Total, 2072.
Average of 10 corresponding weeks, 1854-63, 1682·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	708	647	1355
Average of the ten years 1854-63	549·6	526·1	1075·7
Average corrected to increased population..	..	..	1183
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa
West ..	463,388	1	8	15	2	4	6	7
North ..	618,210	3	10	19	3	6	17	7
Central ..	378,058	1	6	12	4	3	10	4
East ..	571,158	..	13	16	2	3	22	4
South ..	773,175	5	10	26	1	6	28	11
Total ..	2,803,989	10	47	88	12	22	83	33

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·017 in.
Mean temperature	50·3
Highest point of thermometer	60·8
Lowest point of thermometer	37·7
Mean dew-point temperature	42·3
General direction of wind	N. & N.W.
Whole amount of rain in the week	0·00 in.

APPOINTMENTS FOR THE WEEK.

October 22. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

24. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

25. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

26. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

27. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

28. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

HOOPER'S
WATER BEDS AND CUSHIONS,
(obtained the only Prize Medal, 1862).

USED BY
THE ROYAL FAMILY
AND ALL
CLASSES OF INVALIDS.

ALSO IN
H.M. ARMY AND NAVY,
AND THE
INDIAN PRESIDENCIES.

Full Length Water Mattress.
In sending an order the width of the Bedstead should be stated.

Three-quarter Size Water Mattress.

Half Size Water Mattress.

WILLIAM HOOPER, Operative Chemist, 7, Pall-mall East, and 55, Grosvenor-street, London.

HUBBUCK'S PURE OXIDE OF ZINC.
See Pharmaceutical Journal of May 1, 1856.

Sold Wholesale in Stamped Boxes of 14 lbs. each, by the following London Druggists :—

Messrs. Baiss, Brothers, and Co.
,, Barron, Harvey, and Co.
,, Burgoyne and Burbidges.
,, Cox, Gould, and Co.
,, Geo. Curling and Co.

Messrs. Drew, Barron, and Co.
,, Evans, Lescher, and Evans.
,, Samuel Foulger and Sons.
,, Hearon, McCulloch, and Squire.
,, Herrings and Co.

Messrs. Hodgkinson, Luckombe, and King.
,, Hodgkinsons, Tonge, and Stead.
,, Langtons, Scott, and Co.
,, Preston and Sons.
,, Wright, Francis, and Co.

NATURAL MINERAL WATERS OF VICHY,
Efficacious in Stomach, Liver, and Renal Diseases; Gout, Rheumatism, Diabetes, &c.

Also, the celebrated OREZZA MINERAL WATER, containing Iron, and which is extensively prescribed as an invaluable Tonic.
VICHY PASTILLES, the best Digestive Lozenges; and VICHY SALTS for Baths. Also, other French and German Natural Mineral Waters.
VICHY WATERS COMPANY (only Depôt in Great Britain), 27, MARGARET-STREET, REGENT-STREET, LONDON, W.

BARTH'S OXYGEN WATER holds free Oxygen in solution. It gently stimulates the functional action of the stomach and secretory organs, and is a very useful beverage. Wentworth Scott's Analysis gives as contents of a bottle—"Nearly half an imperial pint of pure distilled water, and about 13·5 cubic inches, or 4·6 grains of gaseous oxygen; equivalent to that contained in 21·4 grains of chlorate of potash." 4s. per dozen.
OXYGENATED WATER COMPANY (LIMITED), 36, LONG-ACRE.

Dinneford's Pure Fluid Magnesia,
now Perfect in Purity and Strength.
"Mr. Dinneford's solution may fairly be taken as a type of what the preparation ought to be."—Pharmaceutical Journal, May, 1846.
This excellent remedy, in addition to its extensive sale amongst the public, is now also very largely used in DISPENSING: for which the best form is in the stone jars (half-gallon, 5s. 6d.; gallon, 9s. 6d.), specially adapted for the use of Medical Men and Chemists. To be had from the Manufacturers.
DINNEFORD and CO., Chemists, 172, New Bond-street, London; and all Wholesale Druggists and Patent Medicine Houses.

H. Silverlock's Medical Label
WAREHOUSE, Letter-press, Copper-plate, and Lithographic Printing Offices, Wardrobe-terrace, Doctors'-commons, London, E.C.
DISPENSING LABELS, for the use of Surgeons.
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A Set of LABELS in accordance with the BRITISH PHARMACOPŒIA now ready.

BROWN AND POLSON'S
Patent Corn Flour.
Packets, 8d.
For Pure Jelly,
it retains its solidity longer than the highest priced and best Arrowroot.
For Children's Diet,
it requires simply to be boiled with milk; and to thicken Beef-tea, Sauces, Soups, &c., it is found to be invaluable

Liquor Folii Ricini, or Fluid Extract of the Palma Christi Plant, for increasing the Secretion of Milk in Suckling Women.
Mr. GREENISH solicits the attention of the Profession to the above preparation, which is now in great demand.
Dose: One teaspoonful, three times a-day.
Prepared by THOMAS GREENISH, Chemist, 20, New-street, Dorset-sq.

ORIGINAL LECTURES.

COURSE OF

LECTURES ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D., F.R.C.P.,
Professor in University College, and Assistant-Physician to University College Hospital.

Lecture VII.

PHOSPHORIC ACID, AND PHOSPHATES IN RICKETS, DISEASES OF THE BRAIN, SPINAL CORD, BLADDER, AND OTHER AFFECTIONS; PHOSPHATIC GRAVEL AND CALCULI, THEIR DIAGNOSIS AND TREATMENT.

(Continued from page 406.)

Physiology.

As already said, phosphoric acid seems to play a most important part in the animal economy, for it not only enters very largely into the composition of the bones and teeth, but is likewise found in the blood, nerves, brain, and muscles. The quantity of phosphoric acid daily excreted with the urine by a healthy adult amounts to about 3·22 grammes (50 grains). Or, according to Parkes, 0·336 grain per lb. of bodily weight.

All the phosphoric acid found in the urine cannot be said to come from the metamorphosis of the osseous, nervous, and muscular tissues, as a large proportion is the direct product of our food. Bread, beef, and potatoes are exceedingly rich in phosphates.

½ lb of	beef	contains on an average about	30	grains.
,,	bread	,,	32	,,
,,	potatoes	,,	10	,,

Fatty, saccharine, and starchy foods contain, on the other hand, comparatively little. The more, therefore, we indulge in bread, beef, and potatoes the more phosphates are eliminated with the urine.(b) Even the very fæces, after the greater part of their phosphates have been absorbed during their passage along the digestive canal, still contain 10, 20, or 40 per cent., the amount varying according to the kind and quantity of the food and drink.

In the urine of a small but well-made, healthy female child, aged 17 months, I found on the average of two days 0·832 gramme (12·896 grains) of phosphoric acid in the twenty-four hours' urine, and calculating the amount for every pound of the child's weight (21 lbs.), it gives 0·04 gramme (0·62 grain) per lb., nearly double what the adult passes. This result was certainly contrary to what I anticipated, but I have little doubt it arose from the child being fed on food rich in phosphates (milk, beef, and bread), and its appetite being also remarkably good.

On another occasion I analysed the urine of an infant aged six months, which received no food beyond its mother's milk, and its urine contained the merest traces of phosphoric acid, not sufficient to be worth a quantitative analysis. This child was teething at that time.

Old people's urine in general contains an abundance of phosphates. This sample of urine from a man aged 70 gives, as you perceive, a very copious deposit of earthy phosphates when it is rendered alkaline with a few drops of ammonia.

The more fluids we drink (*cæteris paribus*) the more phosphates (of the food) are dissolved and taken into the circulation, and the greater is the amount eliminated with the urine. Phosphates never entirely disappear from urine, even after prolonged fasting, so it is perfectly evident that the quantity passed under such circumstances must represent the amount furnished by the disintegration of the tissues, more particularly of the nervous and osseous, which are by far the richest in these ingredients.

I must here warn you against falling into the common error of supposing that whenever there is a spontaneous deposit of phosphates in fresh urine, there must necessarily be an excessive elimination, for exactly the contrary may be the case. If, for example, the urine is from any cause alkaline, as was before shown, the earthy phosphates being insoluble in alkaline solutions, they are immediately thrown down. On the other hand, should the urine chance to be abnormally acid, there may be an excessive elimination both of alkaline and earthy phosphates, and yet no precipitate be visible. An excessive elimination has on this account often escaped detection. In fact, there is no possible means of ascertaining the amount of phosphates in the urine except by a quantitative analysis, and this is the more unfortunate, seeing that their quantity, in many cases, furnishes a valuable clue to diagnosis, as well as an important guide to treatment.

As it occasionally happens that a spontaneous deposit of phosphates falls down after a patient has taken a dose of sulphate of magnesia, this circumstance must never be forgotten in cases where we are guiding our treatment by the results of our analysis.

There is still another point to be borne in mind—namely, that many of the drinking waters in different parts of England contain a large quantity of lime, and that persons who have been perfectly free from phosphatic urine in one district may be suddenly attacked with it on going to reside in another where the above-mentioned condition of water exists. This occurs, of course, only in those in whom there is a predisposition to phosphatic affections, either in the shape of gravel or stone.

On examining urinary deposits under the microscope, one occasionally meets with a specimen containing crystals of both uric acid and triple phosphates. At first sight this appears very extraordinary, as the one substance is only found in acid and the other in alkaline solutions. In all these instances, however, the urine is stale, and the simple explanation of finding the two deposits in the same specimen is, that the crystals of uric acid were formed when the urine was fresh and acid, while those of the phosphates appeared later, when decomposition had rendered the secretion alkaline. By boiling such a specimen of urine, the crystals of uric acid disappear in consequence of being transformed into the urate of ammonia; whereas the phosphates remain undissolved.

Phosphates and oxalates are occasionally found associated together.

Pathology.

Like all other urinary ingredients, the amount of phosphoric acid eliminated by the urine undergoes a marked change in disease; and this, too, irrespective of the influence of a change in diet, which is admitted to be a factor of much importance, seeing that, as before mentioned, certain kinds of food furnish to the system twice, thrice, or even four times as much phosphoric acid as others. The diminution in the elimination of phosphoric acid which takes place in many febrile and inflammatory affections may, no doubt, be in several cases chiefly due to the low diet. In some few, however, it is even much less than can be so accounted for.

Vogel, in a case of pneumonia, found the amount of phosphoric acid reduced during eight days to an average of 1·417 grammes (22·69 grains), less than half the normal amount. On the other hand, it has been ascertained that in inflammatory diseases of the nervous system, notwithstanding the low diet on which the patient may be placed, there is an actual increase, instead of a diminution, in the amount of phosphoric acid excreted. This has been noticed to occur both in the idiopathic and traumatic forms of inflammatory action. Dr. Bence Jones found an excessive increase of phosphates in a case of phrenitis; while in a case of paralysis following upon injury to the head that was in University College Hospital under the care of my colleague, Mr. Erichsen, I found an equally enormous excess of phosphates. A few days after admission, the patient eliminated no less than 8·749 grammes (135·609 grains) of phosphoric acid in twenty-four hours, and this, too, at a time when he was taking very little food, and that little poor in phosphates. The urine was at the same period strongly alkaline, and gave on standing a copious spontaneous deposit of earthy phosphates. Gradually, as the patient recovered from the effects of the injury, which was chiefly in the neighbourhood of the fourth ventricle (as diagnosed from the presence of sugar in the urine), the phosphoric acid daily diminished, notwithstanding that his food was more abundant, and of a kind richer in phosphates.

As this case is exceedingly important, I shall here give the

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—Ed. *Med. Times and Gaz.*

(b) After feeding a number of white rats for some weeks on nothing but bread and milk, their urine became so rich in phosphates that wherever a drop fell it left a white crust of beautifully-formed prismatic crystals.

result of the analyses, some of which were made by my former pupil, Dr. Pringle:—

Twenty-four Hours' Urine.

Date.	Quantity of Urine.		Reaction.	Deposit.	Phosphoric Acid.		—
	c. c.	ozs.			grms.	grs.	
July 18	952	30·7	Alkaline.	Copious phosphatic.	..	..	..
,, 20	1000	32·2	Do.	Do.	..	..	..
,, 21	2187	70·5	Do.	Copious deposit of mucus and phosphates.	8·749	135·609	..
,, 22	1875	60·5	Do.	Do.	5·020	77·810	..
,, 25	1955	63·0	Do.	Less abundant.	3·357	51·033	Alkaline: 1·119 grms. 17·344 grs. Earthy: 2·238 grms. 34·689 grs.
,, 28	1000	32·2	Do.	Do.	..	..	..
Oct. 15	915	29·5	Acid.	None.	4·57	70·835	..
CONVALESCENT.							
Oct. 20	1375	44·3	Acid.	None.	4·12	63·860	..
Dec. 3	974	31·4	Do.	Do.	2·95	45·725	..

This is an unusually instructive case, both for the reasons already given, and because, while normal urine contains about four times more alkaline than earthy phosphates, their relationship, on the day note was taken of it, was entirely reversed, the amount of the earthy phosphates being double that of the alkaline. The case is still further interesting, from the fact that, after the man had recovered from the effects of the injury, the amount of excreted phosphates actually fell below the normal standard, making it appear as if the body, in order to compensate for the previous loss it had sustained, was replenishing itself with an excess of phosphoric acid from the food. Hassall relates the case of a woman, aged 54, labouring under partial paralysis of the leg, whose urine contained such an amount of triple phosphates that it was thought to be purulent.

This excessive elimination of phosphates in cases of paralysis is exceedingly difficult to remedy, more especially when the paralysis is due to disease in the spinal cord. It being the cause, not the effect we have to combat; for just as albuminuria is but one of the signs of Bright's disease, so is the excess of phosphates in the urine only one of the signs of the severe nerve-lesion, which must, of course, be treated according to the special requirements of the case. One hint, however, I may venture to give regarding the treatment of these cases, namely, that wherever there is an absence of inflammatory symptoms, and the paralysis appears due to a degeneration or mal-nutrition of the nerve tissue, one of the most successful lines of treatment is to restore to the system the phosphoric acid it has lost. In such cases, phosphoric acid often proves of even more signal service when combined with small doses of strychnine, which, as is well known, is one of the best nervine tonics in the Pharmacopœia.

Where phosphoric acid is taken internally, either in a free or in a combined state with soda, it reappears in the urine in the form of phosphate of potash (Böcker). So that, if at any time we wish to diminish the amount of potash and increase the quantity of soda in the system, all that is required is to give phosphate of soda.

In mania, Dr. Sutherland concludes from the results of several analyses that were made for him by Dr. Beale, that the phosphates in the urine are increased during the acute paroxysm, and diminished during the subsequent state of exhaustion. He thinks, also, that there is a diminution of the phosphates in the urine in acute dementia, as well as in the third stage of paralysis of the insane.

In cases of delirium tremens, Dr. Bence Jones found the phosphoric acid diminished in the urine.

On some rare occasions the urine has been observed to be phosphorescent at the moment of emission, the falling drops being luminous in the dark like those of phosphorescent sea water. The cause of this appearance is as yet unknown. These cases generally occur in winter.

In diseases of the bladder the urine is often observed, at the moment of its emission, to be loaded with crystals of the ammoniaco-magnesian phosphates; a circumstance which has not unnaturally given rise to the false impression that in all such cases the phosphates are in excess. Whereas it occasionally happens that in some of these very cases, instead of the elimination of the phosphates from the system being excessive, it is actually below the normal standard. The explanation of this fact has already been given when speaking of the physiological relations of phosphoric acid. It will be remembered it was then pointed out that the earthy phosphates are always precipitated in alkaline liquids, whether they chance to be in small or large quantity. Hence the appearance of a deposit of phosphates in alkaline urine freshly emitted from a diseased bladder is no criterion of their absolute quantity. Be this, however, as it may, the great point of practical importance remains the same—namely, that all such cases merit close attention, and that the best energies of the Physician must be directed to preventing a deposition of the phosphates taking place during the urine's sojourn in the bladder. This point we shall have occasion to recur to when treating of the utility of benzoic acid and opium in the alkaline urine of vesical disease.

In Bright's disease and the various other forms of albuminuria, the phosphates, like most of the urinary salts, undergo a considerable diminution on account of the disease of the kidneys preventing their elimination.

In gout they are also said to be diminished.

In cases of rickets the phosphates in the urine, especially the phosphate of lime, are greatly increased (Lehmann, Neubauer, and myself)—a fact which may be turned to most useful account in practice.

Some Physicians have erroneously imagined that as there is an excess of phosphates in the urine in cases of rickets, there can be no lack of them in the system; whereas it is exactly the reverse, the excess in the urine being obtained from the bones, which gradually become softer and softer as the phosphate of lime is drained from them. In order to compensate for this loss, therefore, we ought to give to the child bone earth (superphosphate of lime). The dose of this substance for a child of three or four years old is five grains three times a-day. As the salt is very insoluble, I, like many others, have had it mixed with various substances, milk, cod liver oil, glycerine, mucilage, etc., without, however, succeeding in obtaining a good mixture. Indeed, the only true solutions that I have obtained were made by dissolving bone-earth in phosphoric acid, the solution being afterwards rendered clear by the addition of a drop or two of sulphuric acid. They contained five grains of phosphate of lime to the drachm of syrup. These "syrups of phosphate of lime" are at first colourless, as well as clear, but gradually after some weeks they become of a rich sherry wine colour in consequence of the gradual action of the acid upon the syrup. There is one great objection to their use, however—namely, that they are so acid that many children refuse to take them.

It is better, therefore, in the majority of cases to content oneself with giving the finely powdered bone-earth, either in a mixture along with cod-liver oil, or in milk, without any attempt at artificial solution, trusting entirely to the dissolving powers of the digestive secretions for its solution and absorption.

This plan of treatment cannot be too widely known, for it is no exaggeration to say that of the numerous cases of rickets I have treated with the superphosphate of lime, I do not at the present moment recollect a single instance in which it did harm; while, on the other hand, I remember many that were benefited, and several that might be said to have been actually cured, by it. The word cured is here used advisedly, for I have had children of from two to three years of age brought to me at the Dispensary and at the Hospital who could neither stand nor walk, although they had already been under the usual routine of treatment, and these same children after six weeks' administration of the superphosphate of lime have walked into the waiting-room, with no other assistance than that of their parent's hand.

It would be wrong, perhaps, to attribute the entire benefit to the superphosphate of lime, but there can be little doubt that the other means were only auxiliary, and that to the superphosphate is chiefly due the successful results.

The circumstance which had the greatest effect in inducing me to give in this way bone earth was my having noticed that the peasant women in the villages round Giessen give their children lime along with their milk. On asking why they did so, the answer invariably was, "to make their legs straight"—a point of no mean importance in that country, where it is not the length, but the breadth of the female garments which constitute their chief beauty, neither petticoats nor dress being under any circumstances permitted to reach below the knee. Whether or no the handsomely-formed limbs of the fair sex in the valley of the Lahn and its neighbourhood ought to be attributed to the judicious maternal administration of lime may be a matter of opinion,

but nevertheless, be that as it may, the two facts here related remain undeniable.

To children of the upper class there is fortunately another mode of supplying their bones, muscles, and nerves with phosphates—namely, by giving to them bread raised with "Brotopian" instead of cream of tartar. This substitute (an American preparation) makes bread exactly like that made with cream of tartar, and it has the additional advantage of containing nothing but what is to be found in beef-steak, corn, wheat, and other cereals. It is also said to have the still further advantage of making the cakes, biscuits, or bread more palatable, so that children eat them without hesitation.

Mollities ossium is another of those diseases in which the phosphates are greatly diminished in the bones, while at the same time they are increased in the urine (Beale), and there can be but little doubt that the same treatment which has been said to be so useful in rickets will be equally serviceable here. Indeed, wherever there is an excessive elimination of phosphates from the system, without any deposition of them taking place in the urinary passages, the best line of treatment to adopt is to *give more phosphates;* and that, too, for the same reason that if you had to bring to a person a pint of water in a pail with a hole in its bottom, which you had not the means of stopping up, you would put much more than a pint of water into the pail in order to allow for the loss likely to be sustained in the transit.

When the excessive elimination of phosphates, on the other hand, is attended by a deposition of a part of them in the urinary passages, in the form of sand, gravel, or stone, an entirely different line of treatment ought to be adopted.

(To be continued.)

ORIGINAL COMMUNICATIONS.

ON THE

EXISTENCE IN THE HUMAN SUBJECT OF ORGANS UNPROVIDED WITH NERVES, LYMPHATICS, OR CAPILLARIES.

By J. Y. SIMPSON, M.D.,

Professor of Medicine and Midwifery in the University of Edinburgh.

In these days of advanced Human Anatomy, it may seem strange to some minds to aver that there exists a large mass of human structure within which there can be traced no nerves, no lymphatics, and no capillaries, or vasa vasorum. In 1863, I brought this subject before the Royal Society of Edinburgh, but as it has hitherto attracted little attention, I venture to reproduce the observations in the pages of the *Medical Times and Gazette.*

Let me premise by remarking that in the construction of the animal kingdom, Nature always shows herself provident and saving, both in the amount of organic matter which she uses, and in the complexity of the organic structures which she moulds out of that matter. She never employs any superfluous quantity of material, nor any superfluous quality of mechanism. If a low type of structure in an organ is sufficient for the due performance of the given function of that organ, she never resorts to a higher or more complex type. She does not build organs or animals with the higher organic types of nerves, capillaries, lymphatics, etc., when these organs or animals do not require for their function, or for their life, the special physiological action of nerves, capillaries, or lymphatics. She expends no unnecessary workmanship upon the vital machinery which she employs, nor does she ever add to it any unnecessary pieces of organic apparatus.

In the human subject we have, and that too upon a large scale, a striking and remarkable instance of this great general law, though the example I allude to has never heretofore, as far as I know, been presented in this light, by any of our manifold writers on Anatomy and Physiology.

From an early period of utero-gestation in mammalia, the system of the fœtus is organically connected with the system of the mother by the interposition of the placenta and umbilical cord. The remarks which I wish to make upon the type of structure of these interposing organs apply to these organs themselves, as seen in all mammalia. The illustration of the observations which I desire to offer is much more perfect in some of the lower animals—such as the cow, sheep, mare, cat, &c., which have the placenta fœtalis quite distinct throughout from the placenta maternalis—than it is in the human subject, where those two parts are more intimately and organically conjoined. I shall content myself, however, with drawing my evidence principally or entirely, at present, from human anatomy.

The human mother and the human fœtus may be looked upon as in themselves two of the most highly organised beings in existence. Yet during all the latter period of utero-gestation, their two systems are organically tied and united together by structures of the lowest type of zoological organisation. That the structures which connect the mother and child in utero—viz., the umbilical cord and placenta, are of such a low type of organisation as I allude to, the following observations will tend to show.

Let us begin with the type of structure of the umbilical cord.

The rope-like formation constituting the funis umbilicalis is generally stated to consist in the latter periods of pregnancy of the following component parts—viz., 1st. Of an umbilical vein; 2nd. Of two umbilical arteries; 3rd. Of cellular or areolar tissue surrounding these vascular tubes, and containing in its meshes the so-called "gelatine of Wharton;" and 4th. Of a single enclosing sheath, formed by an extension of the amnion.

At an early period of pregnancy, other structures are included in the umbilical cord, as the vitellary and allantoid ducts, and the omphalo-mesenteric vessels; but these are not connected with our inquiry, and nothing, at the most, but very shrivelled remnants of them remain in the fully-developed cord.

In relation to the subject of our present inquiry, it is of more importance to mark the interesting fact, that though by many of our greatest and best anatomists the finest injections have been often thrown into the umbilical vessels, both arteries and veins, no capillaries have ever thus, or otherwise, been traced in any of the component tissues of these tubes. No vasa vasorum have ever been detected in the walls or structures of the umbilical arteries or veins. On this point, one of the latest and most careful anatomists who has written on the "Formation and Circulation of the Human Placenta,"—viz., Professor Schroeder Van der Kolk, of Utrecht, observes as follows:—"That the umbilical cord has no smaller capillaries besides the large umbilical vessels, is universally accepted. Whether this opinion be grounded on a careful examination, I know not; but it appeared to me sufficiently important to make it an object of particular inquiry. By filling with sufficient force the umbilical vessels with very fine injection matter, so that the vasa vasorum, if any be present, must also be filled, I saw, after the cord was dried, moistened with turpentine, and examined under the microscope, that nowhere was there a trace of any vasa vasorum, so that the umbilical cord contains the only example of blood-vessels which receive no vasa vasorum. After an examination for this very purpose, I could as little discover them in umbilical cords in the third month of pregnancy as in others after pregnancy had been perfect."

The statement that the umbilical cord contains in its structure no capillary vessels, nor even any vasa vasorum, requires to be qualified with one remark—viz., that the capillaries and vasa vasorum, which, within the body of the fœtus, extend along the umbilical vessels and abdominal walls up to the umbilical ring, or true fœtal end of the cord, pass there onwards, according to the dissections and injections of Schott and Van der Kolk, for two or three lines; but they do not stretch for any further distance along the track of the cord itself. They exist, in other words, in the short persistent end of the cord, which remains attached after birth to the umbilicus; and which ultimately fills up the umbilical ring; but they are not found in that great mass which forms the deciduous part of the cord, running from the child to the placenta.

The same observation holds true, according to Schott and Valentin, regarding the short extension of the terminal twigs of the nerves of the fœtus, which pass out of the body of the fœtus along with the umbilical vessels through the umbilical ring. Apparently, like the capillaries, they do not pass further than one or two lines beyond that ring. Numerous attempts have been made to trace nerves in the course of the umbilical cord, but no continuous line of nerve-tissue has been detected in its track. In former times Chausser and Baer fancied that they had found nervous fibres running along it. Anatomists generally hold that these supposed nerves were only the deceptive remains of the obliterated vitelline duct or omphalo-mesenteric vessels. At all events, since the microscope has come to add its great and necessary

aid to this inquiry, the search has been diligently renewed, but hitherto in vain. No nervous fibril, nor continuation of fibrils, has been detected by it in this structure.

Several years ago, my nephew, Dr. Alexander Simpson, when writing his thesis "On the Umbilical Cord," set himself assiduously, with the scalpel and microscope, to the investigation of this question of the presence or absence of nerves in the cord. These investigations were kindly overlooked by Professor Goodsir. The result was, that not a trace of a nervous fibril could be detected in this structure. Lately, one of the greatest living authorities in anatomy and histology, Professor Kölliker, of Wurzburg, stated to me that he had also entirely failed in finding any trace whatever of nerve or nerve-tissue in the umbilical cord.

In some observations which I published twelve years ago, on the "Contractility of the Umbilical Vessels,"(a) I attempted to show that we could generally, after the child is born, produce in the umbilical arteries and veins, by the local application of mechanical, chemical, or electrical stimulants, local contractions, which did not again relax. But this form of contractility does not prove, I believe, that nervous fibres exist in the walls of the umbilical arteries and veins; for such local phenomena of contractility occur in the lower animals, where no nerve fibres have been found to exist, as in the Actinia, Medusa, &c. Let me add, that one great exceptional peculiarity in the low type of structure of the umbilical cord is the presence of strong and well-marked contractile muscular fibres in the walls of its vessels; though these fibres are totally unprovided with nerves.

Lymphatics have been alleged to exist in the cord by various authors, as Wrisberg, Schrœger, and Michaelis, and especially by Fohman. The umbilical lymphatics were supposed by Fohman to be capable of being injected by quicksilver; and plates of their appearance, when thus injected, were published by him. But it is now, I believe, universally allowed that these mercurial injections were thrown into the areolæ of the cellular tissue of the cord, and not into lymphatic vessels; and I know of no anatomist of the present day who gives credit to the existence of lymphatics in that structure.

What forms the proper volume of the cord, or, in other words, what forms the material which surrounds the umbilical vessels, and fills up the serous-like sheath of the cord, is usually spoken of as cellular tissue, containing in its delicate meshes a hyaline substance of an albuminoid or mucoid nature, termed the "gelatine of Wharton." This cellular tissue closely resembles ordinary connective tissue, and is composed of nucleated stellate cells or corpuscles.

The external covering of the cord consists of a serous-like blue membrane or sheath, which, after covering the placenta, envelopes the cord from the placenta onwards to the umbilical ring, where, by an abrupt line of division, it meets the white skin of the abdomen of the full-grown fœtus. At birth, the contrast at their line of union of the white opaque skin of the fœtus with the blue semi-transparent covering of the cord is very striking, and gives in itself the impression of a human cutaneous surface connected organically with a structure of a low zoological type.

The umbilical cord, as an organic medium of communication between the fœtus and mother, is merely, as it were, a sheath of sarcoid matter perforated with three tubes for the transmission of the fœtal blood to and from the placenta; but it contains no traceable lymphatics, nor nerves, nor capillaries—not even vasa vasorum. It is skinless, and contained within a sheath of serous membrane. It consists essentially of large nucleated cells formed partly into large and loose cellular tissue containing the gelatine of Wharton, and developed partly into tubal forms, constituting the so-called umbilical arteries and veins.

The same remarks which apply to the type of structure of the umbilical cord apply to the type of structure of the placenta.

Into the maternal surface of the placenta no anatomist has hitherto traced the passage of any nervous branches from the applied surface of the uterus, nor have any nutrient arteries been as yet, at least, shown to pass from the uterus into the maternal substance of the human placenta. But at all events, the fœtal portion, which remains throughout in some animals distinct from the maternal, is assuredly of the same type of structure as the cord with one or two points of difference; for, 1, it contains no gelatine of Wharton; and, 2, its vessels, both arteries and veins, divide and sub-divide, till they reach the very small size in which they appear in the terminal villi; but still neither their coats nor the surrounding tissue contain any capillaries or vasa vasorum, or lymphatics, or nerves.

The enveloping sheath or lining of the terminal villi contains a new arrangement of tissue not seen in the umbilical cord or other parts of the placenta. For the duplicatures of veins and arteries contained in the terminal villi are surrounded, as was first shown by Mr. Goodsir in one of his admirable papers on the Placenta, by a thin layer of nucleated cells, probably, as he suggests, for the functions of nutrition and respiration. This new layer of tissue is apparently derived from the decidua or hypertrophied mucous membrane of the uterus, and, along with the lining membrane of the maternal vascular system of the placental blood-cells, constitutes the maternal portion of the human placenta; but neither nerves nor capillaries have been traced into these structures.

The mode or modes of nourishment and growth of a structure like the umbilical cord and placenta, presenting no capillaries nor vasa vasorum, constitutes an interesting problem in physiology; but my remarks are at present limited to peculiarities in the mere anatomical type of these parts. These anatomical peculiarities may, in conclusion, be summed up in the following

General Inferences.

1. The volume of the umbilical cord and fœtal portion of the placenta is formed of nucleated cellular tissue, traversed by the tubes of the umbilical arteries and vein and their numerous placental subdivisions; and the cord and fœtal surface of the placenta are covered by a sheath of serous or seroid membrane.

2. Into the composition of these parts no capillaries, vasa vasorum, lymphatics, nor nerves are found to enter.

3. Hence, in human anatomy, we have these organs, forming a large mass, weighing on an average about two pounds, presenting a type of structure resembling that of some of the inferior zoophytes. And,

4. The human mother and her child, two of the most highly-organised beings in existence, are thus temporarily united together, during the intra-uterine life of the latter, by structures of the lowest zoological type.

(a) See on "Vital Contractions in the Umbilical Arteries and Veins," in my "Obstetric Memoirs," vol. ii., p. 150.

FURTHER REMARKS ON THE AURICULAR-SYSTOLIC MURMUR.

By W. T. GAIRDNER, M.D.,
Professor of Practice of Physic in the University of Glasgow.

As the subject under discussion between Dr. Ormerod and myself(a) appears both to him and to me to demand not so much new arguments as the accurate observation and plain statement of new facts, I will ask permission to make a further contribution of this kind to the solution of the questions raised in some late numbers of the *Medical Times and Gazette* as regards mitral murmurs, premising only that I am as well assured of Dr. Ormerod's desire to arrive at the truth as I am of his good feeling towards myself personally—a feeling which I shall endeavour to respect and reciprocate, not only because it is agreeable to do so, but because it tends to remove from our scientific differences all those foreign elements, so to speak, which arise from the love of controversy for its own sake.

It will be remembered by the readers of the former communications referred to that the questions at issue are mainly these:—

1. Is the auricular-systolic murmur (as I call it)—*i.e.*, the murmur immediately preceding and ending with the first sound, as heard usually at the apex—a *direct* or a *regurgitant* mitral murmur?

2. Is the murmur described in books as the direct mitral murmur correctly indicated when its rhythm is set down as that of a diastolic murmur—*i.e.*, a murmur coinciding chiefly with the second sound and the well-known rapid diastole of the ventricles; preceding, therefore, the pause or rest of the heart?

To the first of these questions my answer is, that I believe the murmur ending with the first sound, when heard at the apex and of mitral origin, to be invariably a direct murmur, indicative of obstruction, not regurgitation. To the second question I reply that the descriptions referred to are, as I believe, incorrect, or at least incomplete, in so far as they fail

(a) *Medical Times and Gazette*, August 6 and 20, also September 10, 1864.

to indicate the true distinctive position and rhythm of the murmur of mitral obstruction. Observe, however, that I do not deny that the murmur in question sometimes appears to follow the second sound, and is in this sense open to classification as a diastolic murmur; on the contrary, I have fully admitted this, and even illustrated it in a diagram of the murmur ("Clin. Med.," p. 575); but I hold that its essential character as a mitral direct murmur is derived, not from its following the second sound, but from its preceding the first; and also that many or most of the observations, as well as the descriptions, of the murmur referred to have been vitiated by the neglect of this particular. Dr. Ormerod, on the other hand, if I understand him aright, holds that two entirely distinct murmurs can be recognised as occurring in the interval between the second and first sound; in the first place, a direct mitral murmur of obstruction, which, though rare, may be recognised and differentiated as immediately following the second sound, and therefore truly diastolic; and, in addition, a murmur also of mitral origin preceding the first sound, distinct in character and mode of production from the other, and to be regarded in theory as a murmur of regurgitation.

Now it so happens that while this discussion has been in progress, three cases have come under my notice of what I regard as a mitral direct—*i.e.*, an auricular-systolic murmur; and it happens also that these three cases (all of them still under observation) are the only new instances of well-marked cardiac murmurs that have occurred to me during the period of the discussion, during some part of which, however, I have been away from home. It is an odd coincidence, certainly, that these three cases should have come under observation at present, but it serves to show that the materials for studying the question abound; and if I am right in the views I have adopted, the occurrence of these three cases in rapid succession will make it extremely probable that the mitral direct murmur cannot be considered a rare one, as is stated by most of those who believe it to be a diastolic murmur in rhythm. I believe it to be, in fact, one of the commonest of cardiac murmurs, its relations as to frequency with the others being pretty well indicated in a synopsis of twenty cases which occurred to me between November, 1861, and February, 1862 (*Clin. Med.*, p. 607).

I now proceed to a very brief notice of my three cases,—a notice, however, which can be much extended, if need be, from the journals of the Hospital, and to which I invite Dr. Ormerod's attention at present, chiefly with the view of adopting any suggestions he may have to offer as regards the conditions or mode of observation. The cases are all of them in the Glasgow Royal Infirmary, under the eyes and ears of some of our best observers here (a). During session I should not venture to submit them thus generally to the notice of the curious, but at present I have no doubt that due discretion will be observed in approaching the sick and suffering, while at the same time the ends of science may be gained by submitting theories to the test of exact clinical observation.

Case 1.—(Not the first in actual succession, but stated thus for convenience.) Mary O'M., aged 19, admitted September 17, 1864. A case of pure auricular-systolic murmur, extending, however, through the pause, and therefore at times appearing almost to spring from the second sound, increasing afterwards in intensity so as to abut sharply and with emphasis upon the first sound: the murmur not exactly corresponding with the apparent apex of the left ventricle, but still so near it as to leave no doubt, except as regards tricuspid or mitral origin; not audible at base, where the second sound is of exaggerated force and sharpness. A thrill accompanies the murmur, and culminates in a diffused but strong and well-defined impulse; the second sound over the second and third left costal cartilages is accompanied by an indescribable, but well-marked tangible phenomenon of the character of an abrupt snap, easily distinguished from the impulse of the ventricles. There is absolutely no difficulty to a good observer in this case, and the only possible source of confusion is in the differing force of the two cardiac sounds at apex and base. This is so far a difficulty that an unskilled listener, fixing his attention on the loud predominating second sound at the base, and transferring his impressions immediately to the apex, would be certain to suppose the sound there heard so loud and sharp to be the second, whereas it is the first, and is accompanied by the murmur. I do not suppose that in this case the fallacy would mislead Dr. Ormerod, or any one of nearly his experience; but in cases in which the heart's rhythm is less well defined, I believe the same fallacy has often led to confusion in my own observations, as well as in those of others.

Case 2.—James McL., aged 30, admitted September 13, 1864. In this case I noted at the first visit "distinct and protracted auricular-systolic murmur, followed by brief ventricular-systolic, at left apex." I therefore regarded the murmur as being in part mitral direct, and in part regurgitant, the latter element being separated from the former by the first sound. From this opinion I see no reason to recede, viewing it only as an opinion; but two doubts cling to the diagnosis as regards the ventricular-systolic murmur; it is possible it may be a mere prolongation of the first sound, and, therefore, insignificant, and it is possible it may be exocardial. The other murmur is clearly endocardial, very long and rough, extending quite through the pause, and almost beginning at the second sound. The balance of the two sounds at base and apex is disturbed, somewhat as in Case 1, but with the difference, that the second sound is at times scarcely audible at apex, and the first sound there has much of the peculiar sharpness and emphasis which usually distinguishes the second. The heart's action is irregular and feeble; accordingly, it would not be easy to escape from the influence of the fallacy above alluded to but for a fact which fortunately secures the diagnosis of the sounds from all risk of error, viz., the distinct reduplication of the second sound, which can be made out with a little attention even at the apex, as well as at the base and in the great vessels. In this case, however, the murmur might very easily be supposed to be a diastolic murmur, even by a moderately good observer, who did not happen to direct his attention carefully to the guiding indications above referred to. To the carefully disciplined ear, fixing instinctively on these indications, there is no difficulty whatever, with the exception of the doubts above mentioned, as to the existence and character of the ventricular-systolic or (as Dr. Ormerod and I would concur in regarding it) regurgitant murmur.

Before proceeding to Case 3, I would ask Dr. Ormerod to consider and solve for me, if possible, these questions:—When, as I believe occurs in this case, and as certainly has occurred more unequivocally in many other cases under my observation, a murmur at the apex preceding the first sound is immediately followed by the sound, and then by a second murmur, also at the apex (in other words, an auricular-systolic by a ventricular-systolic mitral murmur, as I habitually call them), the two murmurs differing obviously in character as well as in rhythm—how are these facts to be explained upon his theory? If the first of the two murmurs is to be taken as indicating mitral regurgitation, and if, as Dr. Ormerod believes, its abrupt termination is due to the closure of the valve during the action of the ventricle, how explain the second murmur? If the second of the two murmurs be also regarded as a regurgitant murmur, how explain the marked difference of its character and rhythm as contrasted with the first? And, finally, how explain the persistence of the first sound, and its intermediate position between two perfectly distinct murmurs, both signifying regurgitation?

Case 3.—This case is by far the most difficult of the three, and it is difficult chiefly on account of the extreme complexity of the murmurs. I have, however, notes of the case at two distinct periods, at more than a year's interval, and in the second note, made a few days ago, I took pains to set down the facts exactly as in a new case, which, indeed, it was essentially, for I had forgotten everything about the former note, except the mere general result that there was complicated valvular disease of the heart. The two notes thus independently taken can be referred to if necessary, and they correspond with sufficient exactness to give me great confidence in submitting the following very brief synopsis of a careful and detailed observation.

Mary G., aged 17, admitted September 2, 1864. The heart enlarged in all its dimensions; its action extremely rapid and irregular, 140 to 150 beats in the minute. Site of apex beat can hardly be determined, but about two inches below left nipple, a distinct thrill to the finger, corresponding with one of the murmurs presently to be mentioned. From the rapidity and irregularity of the cardiac action, the analysis of the murmurs is more than usually difficult, but after careful and repeated observation it seems certain that there are pre-

(a) Owing to an unexpected delay in the publication of this paper, I am not able to speak with confidence as to a much longer observation of these cases in Hospital, and should, therefore, be much obliged by an immediate communication of any suggestions bearing on the inquiry. One of the cases, indeed, is already withdrawn from observation, as will be stated further on.

sent two closely associated murmurs, A.S. and V.S., audible over the whole of the apex region, the A.S. portion being louder, more blowing in character towards the left apex, and in that position corresponding with the thrill above mentioned. The only position in which both these murmurs, and, at the same time, both the sounds of the heart, can be pretty distinctly heard is from the 3rd to the 4th left cartilage and over the upper part of the left ventricle. The second sound of the heart is extremely indistinct where the murmurs are most distinct, and even over the right ventricle is relatively feeble, acquiring distinctness, however, at the base, and near the 3rd left costal cartilage decidedly predominating over the first sound. At the base and along the sternum there has been repeatedly observed, though often so indistinctly as to lead to some doubt of its true character, a diastolic murmur of the ordinary kind proper to aortic disease, and on at least one occasion during the former residence of patient in the Hospital this murmur was noted as audible in the great vessels. It is now inaudible there, and everywhere very faint, even doubtful, although appreciated by the ear at midsternum and over right ventricle in such a manner as to make the analysis of the mitral murmur there very difficult.

In this case, owing to the tonelessness of the first sound of the heart, and the difficulty of recognising the second sound, except at the base—owing also to the irregularity of the heart's action, I was at one time completely at fault, and had even described the murmur as one following the first sound, *i.e.*, ventricular-systolic and mitral regurgitant. A second observation corrected this error; but on several occasions it has appeared doubtful whether the diastolic murmur heard towards the base is to be regarded as part of the mitral murmur, or one proceeding from the aortic orifice. Another doubt which arose at one time to the mind was whether the whole disease might not be a congenital malformation, as the rheumatic history was at first not apparent, and the patient declared that she had been subject to palpitations as long as she can remember. I now regard the case as one of aortic and mitral disease in combination, and possibly also of disease of the valves of the right side (b); the rheumatic tendency being now made quite evident by a recent attack of acute rheumatism, for which she has been under treatment.

Any one examining this case, or, indeed, the preceding one, in detail, can have no difficulty in understanding how the ear sometimes becomes puzzled in the diagnosis of murmurs, as regards their connexion with the first or the second sound of the heart.

Among the cases noted by Dr. Ormerod, fourteen in number, I find that nine, at least, were complicated cases more or less resembling this one, in which the diastolic murmur observed may probably have been due to aortic regurgitation; and in one (Case 13) which ended fatally this seems to be the only inference fairly deducible from the post-mortem examination. Of the remaining five cases, only one (Case 14) is noted in such a way as to indicate the precautions taken against error, and in this case the ear of the observer seems to have been very much puzzled throughout, insomuch that I can hardly suppose that Dr. Ormerod himself regards it as conclusive. Is it too much to suppose that in the remaining four cases, viz., 4, 5, 9, and 12, some of the numerous fallacies of observation above adverted to may have intervened, and that the murmurs recorded as diastolic may have been either auricular-systolic in rhythm, or due to some other cause than the one supposed, *i.e.*, mitral obstruction?

On my own cases I will make only one other remark at present, viz., that if any one of these three cases should turn out to be other than a case of mitral (or just possibly tricuspid) obstruction, I shall be the first to confess that the whole pathology and diagnosis of the subject, as I have hitherto viewed it, requires reconstruction. According to my past experience, all other cardiac murmurs may occur without positive deformity of the auriculo-ventricular valves; but a well-marked auricular-systolic endocardial murmur is, so far as I have hitherto observed, absolutely pathognomonic of contraction, commonly of the mitral, rarely of the tricuspid, orifice. On this subject in detail I beg to refer to the work on Clinical Medicine already cited in this and the preceding paper.

(b) This case proved fatal while the MS. of the sentence above was in the hands of the printer. On a post-mortem examination, the mitral orifice was found of size only sufficient to admit the thumb, and the edges of the valve roughened with vegetations; similar vegetation on the free edges of the aortic valves, which were somewhat deformed and incompetent; tricuspid orifice just admitting two fingers, and evidently contracted, but without much shortening of the chordeæ tendineæ, or roughness on the edges of the opening. Pulmonic valves normal. The heart is still in my possession.

ON SYPHILIS.

By Dr. F. C. FAYE,

Professor in the University of Norway, Physician-in-Chief to the Lying-in Institution and the Children's Hospital in Christiania.

[Abridged from the original by WILLIAM DANIEL MOORE, M.D. Dub., M.R.I.A., Honorary Member of the Norwegian Medical Society, etc.]

At the meeting of Scandinavian Naturalists held in Copenhagen in 1860, it was resolved that syphilis, as a subject of general interest, should be placed upon the order of the day for discussion at the next meeting in Stockholm. The meeting in question took place in the Swedish capital in July, 1863, and it was the intention of Professor Faye to have brought forward on that occasion the views which, in his opinion, were deducible from the most recent observations in various quarters. His address, in which he proposed to consider the question whether mercury is to be looked upon as an indispensable agent in the treatment of syphilis, or whether it is to be rejected as a curative means," was, for want of time, not brought forward before his departure from Stockholm; but, being anxious to elicit a general expression of opinion among the members of the Profession in the three Scandinavian kingdoms, he has embodied his views in a paper published at Copenhagen, in the numbers of the *Hospitals-Tidende*, for December 9 and 16, 1863. Of this paper, emanating from so high an authority upon the subject of which it treats, I shall endeavour briefly to lay the leading features before the readers of the *Medical Times and Gazette*.

In determining the comparative merits of a remedy or of a mode of treatment in the disease in question, it is of importance in the first place to be agreed as to what is, properly speaking, to be understood by a radical cure of syphilis? The tests most relied on in deciding on the efficacy of treatment in effecting such a cure are, supposing all manifest signs of disease to have disappeared, the relative number of relapses which occur after apparent cure; and next, how far the posterity of the person treated enter the world healthy, and continue healthy during the first months or first years, as at a later period other and fresh causes may come into consideration. With respect to the number of relapses, syphilisation may, according to the published statistics, claim to be more advantageous than the other modes of treatment with or without mercury. But in admitting this, it is necessary to remark that we are still ignorant how the comparison will stand after the lapse of time, for it will be remembered that some years ago syphilisation held out hopes of a still more favourable result, it having been said that no relapses at all had been observed. But it appears from the reports that tertiary symptoms are now met with, and it is with special reference to the cases of relapse which may still be latent, that the second test above mentioned of the real or radical efficacy of a remedy becomes valuable.

The advocates of syphilisation at first entertained the hope that syphilised women, having undergone a change similar to that effected in persons inoculated with variola or vaccine, would bring healthy children into the world. This hope was, however, doomed to disappointment. It was found, in fact, that women in whom all morbid phenomena had disappeared nevertheless gave birth to syphilitic children, and that a woman who had not had manifest signs of syphilis, and had not been subjected to treatment, but who gave birth to syphilitic children, after a course of syphilisation, adopted with a view to remove the latent dyscrasia, still produced an infected child. In many of these cases it was proved that the father was entirely innocent. Hence it would appear that this mode of treatment, properly speaking, only makes syphilis latent for an indefinite period, and that it affords no security for the health of posterity.

As to the mercurial treatment, we know absolutely that many children in all countries are, after it, born healthy and continue healthy, while, on the other hand, a great many have perished. It has been found, too, that a child conceived after treatment has come healthy into the world, although the dyscrasia has at a later period manifested itself in a subsequent child. This result seems to show that the remedy has, at least for a time, succeeded in overcoming the poison in the ovaries or testicles, so that the ovum has been healthy during conception. Undoubtedly it is established by facts that even persons with evident signs of syphilis have produced healthy children, but such cases are rare exceptions, while, on the other hand, it is certain that in families treated with mercury whole series of healthy children have been met with.

The state of our knowledge as to the effects upon posterity

of the non-mercurial Medical treatment of syphilis is still very defective. Professor von Bärensprung had in preparation a report upon this subject, which would no doubt have been extremely valuable; but it appears that the Professor is now suffering from a disease which incapacitates him for work. In the Lying-in Institution in Christiania notes have been kept, since 1846, of all the dyscratic children born of mothers who have suffered from syphilis, and been treated in one or other mode. Since syphilisation has been employed there, eleven unmarried syphilised women have sought admission, and all the children born of these women have either shown signs of syphilitic infection at birth, or have subsequently become syphilitic. All are dead. Of the syphilitic women treated by derivation in Dr. Hjorth's division, four, likewise unmarried, have been delivered in the institution; and of these, one gave birth to a dead child, while the other three brought forth children without signs of any dyscrasia, and it was found that the weight and nutrition of these children even exceeded the usual proportion. Of these children, one continued healthy and thriving at the age of two years, while the other two were equally healthy at the ages of seven and nine months respectively.

A third test of how far the syphilitic dyscrasia has been removed from the system has been suggested, namely, accurately to determine the state of the internal organs in individuals who have died of other diseases, but have suffered from syphilis, or in whom the evident symptoms had disappeared after treatment. Many cases are on record in which, in persons treated for syphilis with mercury, the internal organs have all been found in a healthy state. We have not as yet before us sufficient data to enable us to arrive at any positive conclusions as to the condition of the internal organs after treatment by syphilisation and derivation. Some scattered observations brought by Mr. E. Winge before the meeting of naturalists in Stockholm in 1863 would tend to show that syphilisation had not been able to extinguish the dyscrasia, and the same is true of derivation.

The author next proceeds to review practically the several modes of treating syphilis which have from time to time prevailed, and prefaces his observations by reminding his readers, that "whether we be unicists or duallists as to the origin of the chancrous poison, it must certainly be looked upon as decided, that there is a species of chancre, which behaves quite as a local sore, and by which the system therefore is not affected, and that such chancres, which can usually be recognised, ought to be treated as purely local affections." But as to infecting chancres a question arises whether it is more advisable to treat them actively from the beginning, with a view to prevent, or at least to mitigate, the constitutional symptoms; or to await the general effects of the infection before proceeding to any specific treatment. The author appears inclined to believe that the Practitioner may in many cases venture to treat syphilis by the so-called blood-purifying methods, without adopting any specific treatment whatever. Among the remedies belonging to this class are diaphoretics, decoctions, diet cures, water cures, derivatives, aperients, very small bleedings combined with full diet, mineral waters, iodide of potassium, iodide of ammonium, etc.

Professor Faye next passes to the consideration of the alleged recent increase of syphilis, which has by some been attributed to the neglect of early treatment, and to the want of the observance of due precautions, especially in the practice of syphilisation. It is, moreover, unfortunately, now no longer doubtful that syphilis may be propagated in vaccination, and that this has actually occurred more frequently than has been supposed.

Everything considered, it is quite natural that very many Physicians should still be advocates for the use of mercury, notwithstanding the imperfections of that as well as of so many other therapeutic methods, for experience has shown that this remedy is capable of, to a certain degree, neutralising more rapidly than other means, the effects of the syphilitic poison, so that at least the danger of a propagation of infection is considerably diminished, inasmuch as the morbid phenomena which subsequently arise in many patients, although disastrous to the parties immediately concerned, are far from being attended with the same danger to others; and this is especially true of many of the so-called tertiary symptoms. In the next place, because this remedy seems, when properly used in small doses, to be more efficacious than others in preventing the certain transmission of the poison to posterity, to which object, among others, Dr. Whitehead, of Manchester, has particularly directed attention, and has endeavoured by facts to establish his position. In Norway, where Radesyge (which, as is well known, is considered to be of syphilitic origin) has for many years prevailed, and has been successfully combated in great part with mercury, as well as in Jylland, where a peculiar syphiloid has existed, facts might readily be collected in illustration of this point. Lastly, mercury is recommended on account of its efficacy in many obscure and masked forms of a remote syphilitic origin, in which other means have failed. Many striking instances of this nature might be brought forward, quite sufficient to justify the opinion which has been expressed, that "if mercury be not a specific against syphilis, there is no such specific."

In infancy mercury appears to act well. The metamorphosis of tissue is active in the child, and the remedy will, when it neutralises the poison, be again with greater ease eliminated from the system, especially if this change be promoted by a suitable diet. Experience, too, has shown that persons who have in infancy been cured with mercury have, in after life, proved to be so free from the dyscrasia that they have become parents of healthy children. The importance of pushing the study of all remedies which may tend to counteract so great an evil as latent syphilis, will appear from considering the influence the latter has in spreading the disease, and also upon the health of posterity. If we suppose that latently syphilitic individuals—and such all may reasonably be considered who, although apparently cured, beget syphilitic children,—in connexion get a soft chancre or even a slighter local affection, experience seems to indicate that such originally local sores may, from the juices of the system, become mixed with infecting matter, and may transmit actual syphilis to other individuals, just as it has been shown that vaccine vesicles may, in the latently syphilitic, become infecting syphilitic ulcers.

In the tertiary and quaternary forms of syphilis Professor Faye advocates the external employment of mercury in very small quantities, for example, by means of the calomel fumigations so much recommended by Messrs. Parker and H. Lee, as well as in the form of salve—best prepared with glyce ineplasma—an advantage of this method being that other strengthening, nourishing, and alterative agents may at the same time be employed. "In the Children's Hospital I have," he says, "in some patients with localised tubercular nodes with deep unhealthy sores and affections of the bones, who have in vain or without any permanent effect been treated with other means, tried these calomel fumigations, any action upon the lungs being prevented by a close covering. In this manner the fumigations may be continued for an almost unlimited time, and the effect is, of course, milder and more gradual than if, as has been recommended in England, the vapours be at the same time inhaled. The glycerine salve I have employed in small portions externally upon the skin, or, following the English, as small suppositories in the rectum."

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

TUMOUR AT THE BASE OF THE BRAIN, EXTENDING INTO THE THIRD AND RIGHT LATERAL VENTRICLES — AMAUROSIS — PROTRUSION OF THE EYEBALLS — ALBUMINURIA — EPILEPTIC CONVULSIONS.

Ann M., aged 25, a single woman, who had resided at Woolwich, was admitted, under Dr. Habershon's care, into Guy's Hospital, July 27, 1864. She had never menstruated, and an experienced obstetrician believed that she had no uterus. For six years she had suffered from headache, with pain in the back and vomiting, and three years later dimness of sight, with distorted vision, came on. For this a seton had been introduced in the neck at the Moorfields Eye Infirmary; but it did not afford any relief. During the succeeding twelve months sight was entirely lost.

On admission into Guy's she was a stout young woman, pale, and with general slight anasarca. She was able to hear distinctly, and spoke rationally and well. There was complete loss of sight, and the eyeballs were very prominent; the pupils were dilated and almost fixed, and on telling her to

look to the nose or outwards the globe was scarcely moved. The orbiculares palpebrarum acted equally, and the two sides of the face were generally equal; but occasionally the right side of the face was spasmodically contracted, and then pain was produced on the same side of the face. Sometimes there was diminished power of the left arm and left leg, also accompanied with pain on the same side; still there was no persistent hemiplegia. There was no numbness of the face, and the tongue was protruded naturally. The lips and the tongue were both pallid. There was no enlargement of the thyroid gland, nor of the lymphatic glands of the neck. There was slight anasarca, and the urine was albuminous. She complained of severe pain in the head, especially at the vertex, with nausea and thirst. The bowels were generally constipated. It was found that the olfactory nerves were paralysed, the sense of smell being lost; but there was neither ozæna nor discharge from the nose. She was ordered effervescing mixture every four hours, and as a purge colocynth with henbane.

July 29.—Since admission there had been no relief to the severe pain in the head, but greater weakness, and the urine was passed involuntarily.

August 1.—Iodide of potassium, gr. iij.; carbonate of magnesia, gr. x.; infusion of gentian, ʒj., three times a-day.

31st.—During the month there had been no perceptible improvement in the general symptoms, but the pain in the head was rather less severe.

September 9.—The bromide of potassium was given in the compound gentian mixture.

20th.—Severe epileptic fits came on, and she became drowsy and scarcely sensible. The bowels were tolerably open, but the discharges were involuntary. Pulse compressible. A blister was applied to the nape of the neck, and the acetate of ammonia prescribed.

23rd.—The patient rather more sensible, and there had been no recurrence of the fits for several days. Still she was prostrate, and the pulse was very compressible. Wine was prescribed.

28th.—She had less pain in the head, but prostrate and helpless. The eyes were closed, but she replied rationally to questions, and there was no local paralysis of the face or extremities. The motions were involuntary.

30th.—The pulse could scarcely be felt, and there was some difficulty in feeding her, the fluids being imperfectly retained in the mouth.

On October 1, after one or two deep sighs, she died unexpectedly.

Autopsy, Sixty-six Hours after Death.—The body was well developed, or rather inordinately fat, but feminine in all appearances. On attempting to remove the brain from the calvaria, it was found connected with the pituitary body by a new growth. This peduncle, about the size of an ordinary lead pencil, was cut through, leaving a portion of the tumour in the base of the skull and the remainder in the brain. On regarding the base of the brain, this new growth, occupying the infundibulum, was seen to be merely the extreme portion of the tumour, which was directly observed protruding by it, covered with brain structure. On opening the brain from above, a large tumour was found lying loose in the right ventricle, its only attachment being where it reached the surface of the brain at its third ventricle or infundibulum, and here it was only held to the pia mater by slight areolar tissue. The tumour was very large and oval, much the shape and size of a goose's egg. When cut through, it was found to be half solid and half cystic. The cyst contained reddish serum. The new growth was soft and vascular, resembling cancer or brain-substance. It occupied half of the right ventricle—the anterior half; and flattened out the thalamus and corpus striatum. By its pressure downwards it had flattened the olfactory and optic nerves. On examining the base of the skull, the pituitary body was seen to be affected by the same malignant disease; in fact, it was continuous, and formed part of the tumour. On removing this, the bone on each side was found to be absorbed, and the growth extended into the sphenoidal sinuses on either side; the finger could be easily passed into all these sinuses, and the growth removed. The calvaria was much thinned, being in parts diaphanous, and in others rough and prickly from minute projections. It appeared as if the growth had commenced in the pituitary body, and proceeded downwards into the sinuses of the sphenoid, and at some time passed by the infundibulum into the lateral ventricle, and there expanded into a large tumour. The microscope showed it to be cancer—oval nuclei in various shaped cells. There was no secondary deposit in any internal organ. Inflamed and granular products were found in the tubuli of the kidneys.

The following sketch of the microscopical appearance is kindly supplied to us by Dr. Habershon:—

Cells from the growth in the brain.

Nuclei from the growth at its lower part.

The above case is an instance of the clinical fact observed by some that when amaurosis occurs with hemiplegia, the hemiplegia is generally on the left. But the post-mortem examination shows lesions too wide to make the case of any value for or against the inference that [cerebral] vision is seated in the right hemisphere. As to the mere clinical fact that amaurosis occurs much more frequently with hemiplegia on the left than with hemiplegia on the right, there is, according to some, little doubt that these facts are not enough to establish any inference, but are enough to render further investigation desirable.

BIRMINGHAM GENERAL HOSPITAL.

CASES OF PEMPHIGUS APPARENTLY ORIGINATING IN DISEASE OF THE CUTANEOUS NERVES—WITH REMARKS.

(Under the care of Dr. RUSSELL.)

The nervous system presides over all the organic functions; it has a direct influence over the blood-vessels, regulating the amount of blood which they convey, and the processes to which they minister. "It is, therefore, a fact that the perverted state of the nervous system gives rise to a great variety of diseases, not only of a general, but also of a local nature."

This remark of Bernard's receives a wider significance as experiment places in a clearer light the influence which is exerted by the nervous system upon the blood-vessels, and through them upon the nutrition and upon the functions of particular organs. The result of the clearer views at present entertained upon this subject has been to render it highly probable that many local diseases involving manifest structural change in the tissues affected are, in their essence, neuroses, commencing in disordered innervation of the part; the local circulation and nutritive changes in the tissues being affected only in the second place.

The following examples of a not uncommon skin complaint appear to afford an illustration of the preceding statement. It will be observed that the leading features in the cases are the following: the nature of the disease itself, vascular determination followed by effusion of fibrinous fluid;—the occurrence of the malady in distinct paroxysms;—the sequence observed in the phenomena; marked nervous disturbance in the particular spot about to become the seat of the eruption taking the lead, and remaining limited to the spot; and in the second case the presence of a cause operating directly upon the nervous system through the mind; finally, in the first and most characteristic case, in which the disease was almost united to the constitution, a remarkable tendency to perspiration, and peculiar habitual turgescence of the face. The nervous phenomena, though very marked in the first case, will be found more highly developed in those which follow.

It is well known that similar nervous phenomena are connected with shingles, another disease, consisting of very simple elements. In this disease they assume a very distinctly neuralgic character, and the correspondence between the seat of the pain and the subsequent changes is often most strikingly precise. Urticaria, too, may probably be included in the same analogy.

I may be permitted to recall the principal physiological facts relating to the function of the organic nervous system, which seem to have a bearing upon the present subject. The experiments on the cervical spinal cord, to demonstrate the influence of the sympathetic branches in regulating the condition of the blood-vessels, are well known, and it only remains to add that similar experiments upon the dorsal region of the cord are stated by Brown-Séquard to be attended with similar results in the parts supplied by the corresponding sympathetic branches. Among the results of the experiments, however, it concerns the present case to mention specifically that evident increase in secreted products, as of tears, palpebral mucus, and perspirations and eruptions upon the skin, have resulted from paralysis of the sympathetic branches; also that, under peculiar conditions, especially of depressed constitutional vigour, the altered state of the local circulation, induced by dividing the sympathetic branches to particular organs, has passed into that morbid condition termed inflammation; for example, secretion of pus from the conjunctiva, distension of the pericardial vessels, and exudation upon the membrane, acute peritonitis, diarrhœa, and dysentery, with their usual anatomical lesions, have resulted from injuries to the corresponding sympathetic branches in certain states of health. Instances of this kind are quoted by Brown-Séquard, Claude Bernard, Dr. Ogle, and others.

Generalising from these and other observations, and speaking at the time of the cervical sympathetic, Dr. Brown-Séquard observes that all the circumstances, whatever they may be, which cause an increase in the quantity of blood passing in the blood-vessels of the head in a given time, induce almost all, if not all, the phenomena following section of the cervical sympathetic. To take a parallel case induced by disease, two cases of unilateral sweating have been reported by Dr. Gairdner ("Clinical Medicine," 558) in cases of aneurism, wherein, from the contracted state of the pupil, there was reason to believe that the cervical sympathetic was compressed and paralysed.

It must, however, be added, that experiment has proved the flow of blood through particular organs to be modified through the medium of other than the sympathetic branches distributed to the vessels. In the case of the salivary glands, for example, Bernard increased the local circulation and augmented the salivary secretion by exciting the branch given to the gland from the facial nerve, which, therefore, he terms the motor nerve of the gland. In what precise manner the changes are effected in this and like cases is at present in dispute. Whilst Bernard advocates active dilatation of the vessels, Brown-Séquard believes the impression excited to be of a purely vital character, summoning the blood to the organ.

But it is more closely connected with the case now in hand to observe that a reflex as well as a direct influence can be exerted upon the blood vessels, through precisely the same mechanism as prevails in ordinary reflex muscular action; that, in fact, as pointed out by Bernard, the process of secretion itself is a most striking illustration of this reflex action upon vessels, and depends mainly upon it. Thus, when a tube was inserted into the parotid duct, Bernard found that after division of the centripetal nerve, the gustatory branch of the fifth, sapid substances no longer excited the secretion of saliva, when introduced into the mouth, but that by galvanising the central extremity of the divided nerve, "thus acting directly on the nervous centre, you will produce a similar secretion to what is observed under ordinary circumstances."

Similar illustrations of the reflex action which is concerned in secretion is afforded in the case of the eye, where the ophthalmic division of the fifth is the excitor to the motor branches of the lachrymal gland. This reflex action in secretion obeys the same laws with reflex action in other cases. Thus, when the fifth nerve is divided, "and can no longer convey impressions to the nervous centres, to be thence reflected, the irritation of the conjunctiva produces no closure of the eye, the mechanical irritation of the nose excites no sneezing, that of the tongue no flowing of saliva; and although tears and saliva may flow naturally, their afflux is not increased by the mechanical, chemical, or other stimuli, to the indirect or reflected influence of which it is liable in the perfect state of this nerve." (Kirke's Physiology, 5th Edit., 485.)

In the same connection, Brown-Séquard refers to the effect produced by irritation of the mucous membrane of the stomach, through the presence of food, in increasing the secretion of saliva, and also to excitement of the nerves of taste, "producing an abundant reflex secretion of gastric juice."

To what extent this reflex action is concerned in governing the process of nutrition itself, is an important question, especially in view of the effects upon the nutrition of the organs to which the fifth nerve is distributed, resulting from section of that nerve.

In seeking an explanation of the method by which the reflex influence is brought to bear upon secretion, the proof is conclusive that the change is effected by increasing the activity of the local circulation, through the instrumentality of the nerves. Apart from the general law that the function of an organ is active in proportion to the freedom of its blood supply, the proof is afforded by Bernard's elaborate observations upon the motor nerves of the salivary glands and of the stomach; he found that when secretion was excited by stimulating the motor nerve of the salivary glands, the venous blood issuing from the active gland was of arterial redness, and issued *per saltum*, as from the mouth of a divided artery; whilst in the case of the mucous membrane of the stomach, the determination of blood to that membrane whilst secretion is active, becomes matter of direct observation in the florid hue by which it is overspread.

In transferring the phenomena of reflex nervous action upon blood-vessels, from the domain of health to that of disease, Brown-Séquard observes — "There are certain centripetal nerves which normally can produce certain secretions by a reflex action, which others cannot; but a morbid condition of a nerve or of a nervous centre is able to render almost any nerve capable of producing almost any secretion."

This reflex action upon organic nerves has even been adduced by Bernard to account for the general disorder which results from local disease. Having injected fine sand into the femoral artery of a dog, acute pain was produced, "and powerful reaction soon took place;" "let the posterior roots [of the spinal nerves distributed to the lower extremity] be divided, and all general symptoms will at once disappear . . . . and symptoms of a purely local character are the only phenomena observed." It is well known that the same doctrine assumes great importance in the modern and most rational explanation of epileptic phenomena.

Analogy renders it probable that a disordered condition of the cutaneous nerves was the first of the series of phenomena in the cases to be now adduced. Many striking illustrations of a parallel kind in disease are quoted by Brown-Séquard from M. Notta, derived from cases of facial neuralgia. Thus, M. Notta found that, of 128 cases of neuralgia of the trigeminal nerve, the eye was congested 34 times, and that in most of these cases the nerve attacked was the supraorbital. Similarly, lachrymation has been noted as an effect of neuralgia of the fifth nerve 61 times out of 128 cases, and it is added that it was chiefly in neuralgia of the supraorbital branch that this phenomenon was produced. These observations have since been much extended in the October number of the *Archives Générales* for 1863, and have included neuralgia in other organs of the body (a).

Case 1.—M. A. P., aged 23, single, following no employment. She has been subject to recurring attacks of Pemphigus for the last ten years, some of the attacks continuing for three months, others being of shorter duration. She refers the commencement of her disease to sudden suspension of her first menstruation in consequence of getting her feet wet. On this occasion the function was arrested for a period of two years. It has since been performed at the usual intervals, though the discharge has never attained its normal amount. The eruption showed itself on the day after the arrest of the discharge, and in less than a fortnight her body "was covered with large blebs of water, which was scalding hot." Since that time she has been going from one institution to another, but has never received permanent relief. Last Christmas her entire body was covered with the eruption, and at her admission into this Hospital, on June 3 of the present year, she was just recovering from a similar attack. She gives the following description of the series of phenomena which characterise

(a) Since writing the preceding remarks, the following case, illustrating M. Notta's observation, has presented itself among the out-patients:— A young man, aged 26, complains of pain seated at the back of the left eyeball, affecting also the left frontal region. The pain occurs in paroxysms, each attack commencing about half-past ten a.m., and lasting till about one; he is free from it during the afternoon. As the pain comes on, the eyeball "goes very dark, quite of an orange colour," and at the same time lachrymation commences, the tears even dropping from his nose; both the congestion and the lachrymation continue with the pain, and leave as that ceases. He has had this complaint for eight months; the attacks began at first at four a.m., and gradually changed to the hour mentioned above. The pupils are perfectly natural; nothing abnormal was seen by my friend Mr. Bartleet in the retina when viewed by aid of the ophthalmoscope. Vision is quite unimpaired.

her complaint; in every instance the sequence has been precisely alike. The first symptom which presents itself is itching, with "fearful" pain, burning or aching, strictly limited to the particular spot to be affected. The spot becomes so tender that she cannot endure contact with her clothes. When the eruption is to cover her body, the pain affects each particular spot on which a bulla afterwards developes itself. She has been kept awake by the pain for a fortnight at a time. The pain when it first appears is entirely without any objective phenomenon, but after an interval, varying from a few minutes to an hour, a small red, elevated spot appears, and in a few minutes afterwards she observes a small vesicle upon its highest point; the vesicle enlarges, and sometimes in a few hours, sometimes in a day, it has been converted into a "bleb." As effusion occurs, the pain in the particular spot lessens, and does not return unless the clear fluid becomes purulent. Each bulla is surrounded by a red blush, which is more intense when pus appears, and is then attended with some swelling. Her description of these phenomena is singularly precise, and undergoes no alteration under severe cross-questioning. From the period when she became subject to her present complaint (she is very positive in limiting her statement to this epoch) she has been liable to very severe and troublesome inodorous perspiration; the sweat bursts out in all parts of her body as she lies still, often without any provocation; it is sometimes sufficient in amount to wet her clothes. Any nervous excitement occasions the perspiration immediately; it will break out in the coldest weather of winter; she is unable to sit near a fire on account of it, and has often to abstain from warm tea. The perspiration affects all parts of her body, but especially her hands and feet. She is also very subject to flushing of her face, and during her residence in the Hospital her face presented a vivid redness in irregular patches, exactly resembling that observed in a neighbouring patient suffering from disease of the fifth cervical vertebra, which had occasioned paralysis of all the parts below. The redness is accompanied by a sense of heat, and to my hand the temperature of the face is sensibly elevated. Her pupils are perfectly natural. All the functions of her body are performed quite naturally. Nothing in her previous history, nor in the history of her family, is worthy of note. Her urine is free from sugar and from albumen.

Case 2.—In this case the nervous phenomena assumed great prominence, and have been throughout the leading phenomena in the history. H. M., aged 70, a baker. This patient has been the subject of great and prolonged anxiety for the last four years; he has been robbed of his property, and has been lowered from a comfortable position in life to one of much pecuniary embarrassment. He enlarges much on his sufferings, and bursts into tears when spoken to on the subject. He has suffered from Pemphigus for three months, affecting all parts of his body, except his face and legs. The eruption was preceded by very intense itching for some days before its appearance. In some parts of his body the itching was present for a fortnight or more before any visible change took place in his skin. This itching was sufficient to disturb his rest: its severity is rendered very evident, not only by his acts, but also by the reddened and thickened state of the skin, apparently occasioned by the constant application of his nails. During the first week of his residence in the Hospital he spent his entire time in sitting upright in bed, either without any covering or protected only by a sheet, scratching perpetually the affected parts. He disturbed the patients during the night; and the constant excitement to which he was subjected ended at last in an attack of mild delirium. The bullæ were very thickly scattered, especially over the thigh. There was a general redness and some thickening of the skin, which presents in parts the appearance of lichen; whether produced by the constant irritation of scratching or by an admixture with that complaint, I am not able to ascertain; but it ought to be stated that a year before his present complaint he suffered for a short time from an eruption of a totally different kind. At the time of my writing these notes, a fresh crop of bullæ has made its appearance, and the itching, which had previously subsided, has returned with nearly its former severity. He has not observed any very marked tendency to perspiration, though of late he has perspired more freely than usual. He is in other respects very hale and hearty; and there is nothing worthy of special remark in his previous history. I succeeded in giving relief by freely brushing the limbs and trunk with a solution of nitrate of silver, suggested to me by Dr. Anderson.

Case 3.—My friend—our House-Physician—Dr. Anderson, has furnished me with the following note of a case of pemphigus which occurred under his observation:—D. B. A., aged 16, was seized early in the morning with itching and uneasiness over the instep of the right foot. For several days previously he had been a little out of health, but only sufficiently so to confine him to the house. In the forenoon of the same day the irritation increased so much that the patient's friends thought he must have received some injury to the foot. The woollen stocking was rejected as intolerable, and subsequently even a light cotton one could not be borne; relief was only obtained after a time by keeping the limb raised upon a high, soft cushion, and dusting the now red and apparently inflamed surface with flour and bismuth. Late in the same evening there commenced, and next morning there was feebly developed, an eruption of the characteristic bullæ of pemphigus.

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Medical Times and Gazette.

SATURDAY, OCTOBER 29.

MODERN SYPHILOGRAPHERS.

Modern syphilographers have one evidence at least that they are on the right track. They have cleared up mysteries and settled controversies which hung like a fog over the early history of the disease, and have enlarged our theories, so that they embrace a greater number of facts.

One matter in dispute was, Were venereal diseases known to the ancients, or known before the year 1494? And to this we are now able to reply, that some venereal diseases were known, but that that which has received the emphatic name of *the pox* was not so known.

Consider gonorrhœa first. There is nothing *specific* in this any more than in any other suppuration of a mucous membrane. It may be produced by a hundred causes, and however produced may spread by contagion. If we had no historical evidence we might believe it to have existed at every time and place where promiscuous intercourse of many men with one woman was permitted. Certain it is, that it was known in the middle ages in England under the name of *burning*, *brenning*, *arsura*, etc.

It can equally be proved that ulcers, buboes, heats, excoriations, etc., arising from foul intercourse were known in the middle ages, for they were described by John of Gaddesden and others in the fourteenth century.

Besides, our forefathers were far wiser in their generation than some persons are inclined to believe. On the one hand, they did not attempt to suppress fornication; on the other, they did not allow loose women to parade the streets, to put temptation in the way of the unwary, and sow disease broadcast. They shut up their loose women in *stews* or *brothels*, and made them submit to regulations, amongst which one was, that every woman be examined once a week by a Surgeon "to see if she had contracted any disease by her whoring; and, if so, she was to be shut up till cured, in order that the youth who might visit her might not catch her distemper."

No doubt, then, contagious discharges and ulcers existed in early times; and we are probably justified in identifying these ulcers with the *soft*, or *suppurating or non-infecting* sore of modern writers. But we cannot, as was well observed thirty years ago by Mr. Bacot, identify any of the mediæval venereal affections with the *pox;* for there is no account given by the early writers of *constitutional*—that is, of unmistakeably syphilitic—symptoms.

Equally indisputable is it that at the end of the fifteenth century, 1494-6, about the time when Columbus returned from America, and when King Charles VIII. of France was besieging Naples, there sprung up a new disease, of which the leading sign was, not mere ulcers locally, but an universal infection of the body. As Dr. Wilks,(a) whom we are glad to find in the first rank of modern syphilographers, says, It is not the sore—the primary sore, as it called—which constitutes the pox, any more than the bite of a dog is hydrophobia. The name *secondary* is a misnomer, when applied to the symptoms of constitutional syphilis. They are the disease, and without them the patient is not poxed.

The symptoms which astonished the world at the close of the fifteenth century were no mere local ulcers or discharges, but pustules on the scalp and other parts of the body, ulcers in the throat, odious nocturnal pains, and nodes on the bones; and there can be no doubt but that a prevalence of such symptoms was as new then, at least, as a prevalence of diphtheria was to us ten years ago.

We have no hypothesis as to the origin of syphilis. It may have existed amongst some tribes, African or American, since the days of Noah. But our knowledge of it as a historical fact dates from the last ten years of the fifteenth century.

That it was a disease new to the European population of that day is shown by the traces of its spread, by the confession of Physicians, the consternation of governments, and even by the popular names it received. Just as we talk of Irish fever, Asiatic cholera, Egyptian ophthalmia, and Boulogne sorethroat, so did the French call it the disease of Naples; the Dutch the disease of the Spaniards (who then held the Low Countries); the Turks called it the Frank, *i.e.* Christian, disease; and the Persians the Turkish disease. The English and Scots naturally enough called it the French pox.

The rapidity of its spread might seem astonishing to anyone who did not consider the repeated movements of troops and of travellers, religious and political, from Italy to the ends of the earth, and the uncleanly customs of the age. At any rate, the Parliament of Paris so early as 1496 had issued orders that all persons infected with the grossa variola, or great pox, were to go to a house at St. Germain les Prez and remain till they were cured; and the most distinct evidences of its importation into Scotland, even so far north as Aberdeen, in 1497, have been discovered by Dr. Simpson(b), whom we claim as another eminent syphilographer. The Scotch called it "*the infirmity cumm out of Franche and strang partis*," "*the syknesse of Napilis*," the "*Grandgore*," and the French or Spanish pox. Dr. Simpson states, with rather more severity than is needful, the fact that some of the Catholic clergy of that day were reputed to be poxed. He may set against this the tradition that Cromwell's saintly covenanting soldiers left behind them an hereditary pox in the villages of Dumfriesshire(c).

But this leads us to another point on which modern syphilographers have thrown the greatest light.

If there be one fact more clear than another in early writers, it is that the pox, as a whole, is contagious; not merely the ulcer (the *primary* sore as it has been called), by which the disease first shows itself, but all sores. Fracastorius, writing in 1555, speaks of children taking it from the breast of an infected parent or nurse. Antonius Gallus, in 1540, tells of a midwife who was infected in delivering a diseased woman. Bishop Torella, in 1521, speaks of a boy who contracted it from a brother with whom he slept. Montanus, in 1553, says it is dangerous to put on the apparel of the infected. Amatus Lusitanus, in 1552, gives the case of a man who thought himself cured, and married. His wife brought him two healthy children; but the third child was diseased, and she had an ulcer on her lip. So the child was put out to be suckled by a nurse, "who soon afterwards was contaminated by the child's sucking of her; the nurse infecting her husband besides two other children of her neighbours to whom she had ignorantly offered her breast in the same manner as to the first. These gave the taint to their parents, and thus nine several persons became diseased with this lues in one month's time."(d)

(Does not this read as if it were taken from Mons. Diday?) Fallopius, in 1540, says that syphilis may be contracted on the lips by kissing or sucking, on the nipples by giving suck to an infected infant, and by an infant who sucks a distempered nurse. Botallus, 1565, gives a case of sore on the lip caught by drinking after an infected person. Erasmus, a literary man of the world, writing about 1520, speaks of it as a new disease, and mentions the various modes of propagation of it. He says it were better to let your beard grow down to your knees than to have it trimmed by a barber who, after dressing a patient with the pox, might infect you with his fingers or scissors; and on this ground he says that no man ought to be barber and Surgeon too. The German innkeepers, too, he complained, put guest after guest into the same bed, although the sheets were not washed twice a-year, and thus the disease might be got.

Whatever evidence can be obtained from antiquity points to the contagiousness of *all* syphilitic sores, to the infection of the fœtus in utero, of sucklings and nurses, and to the possibility of innocent persons catching the disease from clothes, sheets, cups, etc. This opinion was universally held, till the appearance of the most mischievous Medical book that ever was written, John Hunter's celebrated "Treatise on the Venereal," published in 1786. The great reputation of Hunter as a physiologist and as the author of the immortal museum, caused English Practitioners to accept the doctrines of this book, than which none that ever was printed contains such unwarranted deductions. We cannot define modern syphilography better than by saying that it signifies the total refutation of Hunter's doctrines.

Hunter may always be trusted as an observer of facts simply; his honesty and accuracy are unimpeachable; but he never could resist the temptation of erecting "laws" and "doctrines" out of the inferences which he drew from the smallest possible number of instances. Of this sort were his dogma that morbid actions, *i.e.*, different states of disease, cannot exist together in the same body:—that the venereal poison is innocuous unless combined with the skin; that syphilis cannot be communicated by the blood, nor yet by the semen, nor by the discharge from the ulcers of constitutional syphilis; that the fœtus in utero cannot be infected; that a sucking child cannot infect its nurse, nor a nurse the child, and that secondary ulcers produce no enlargement of lymphatic glands; and that the transplantation of a tooth could not transplant syphilis along with it. He was always ready to explain away adverse facts, and never was at a loss for preposterous hypotheses. He assumed, for example, that syphilitic disease, arising under conditions hostile to his theories, was not syphilis; "that new diseases are arising up every day, very like the venereal in some respects, though not in all;" that "undescribed diseases resembling the venereal are very common." Hence he was the real parent of that monstrous term *pseudo-syphilis*—a term really applied to all cases of syphilis which did not answer to a purely arbitrary standard of his own. These are errors peculiarly his own, which arose

(a) Guy's Hosp. Rep., third series, vol. ix.

(b) *Trans.* Epidem. Soc., Vol. I, part II, p. 144, published by Hardwicke, Piccadilly, 1864.

(c) Benjamin Bell on Gonorrhœa, Vol. 1, introduction.

(d) Quoted in Daniel Turner's "Aphrodisiacus."

from his wish to build up doctrine when he should have been collecting facts. Besides, he accepted and endorsed the popular notion of the identity of gonorrhœa and syphilis, of which more hereafter.

Although, however, English Surgeons bowed themselves before the great Surgical idol, and accepted his doctrines, as Curll did the Hebrew faith, because they could not understand them, the truth was not quite extinct elsewhere. Edinburgh was a focus of sound syphilography. Benjamin Bell, whose treatise on Gonorrhœa and the Venereal is as simple and rational as Hunter's is pretentious and complicated, upheld the doctrine of the contagiousness of constitutional syphilis. It was opposed, point blank, by Ricord(e), but upheld by Diday, accepted and verified by Henry Lee, and approved by Dr. Jeffery Marston, whose contributions we regard as among the most valuable of living syphilographers. The experience of the army Surgeon is in Dr. Marston(f) combined happily with other qualifications which render his Contributions to the History of Syphilis some of the most important of the day. He generalises fairly, and has no exclusive doctrine which compels him to shut out or to explain away half the facts he has observed; and he has the faculty of seeing things as they are in nature, and not merely as they are described in books, and he has availed himself of his great opportunities of collecting and classifying the numerous classes of exceptional cases, which at present cannot be brought under any law.

In a remarkable passage in the 46th volume of the Medico-Chirurgical *Transactions*, Dr. Marston traces the return of Surgeons in the nineteenth century to the belief held in the sixteenth century of the contagiousness of secondary syphilis, without which the early history would be an enigma. Thus we bring that early syphilis, which otherwise seems so inexplicable, into the calm order of every-day facts. They who denied the contagiousness of constitutional syphilis were like the convulsionary geologists—obliged to assume an "exceptional acute epidemic condition" of syphilis in 1500, over and above the ordinary contagion which we admit in 1864. Wallace, whose work on the Venereal deserves to rank with Bell's, Waller of Prague, Langlebert, Rollet, Fournier, Diday, whose work has been published by the New Sydenham Society, have all contributed to brush away the cobwebs which Hunter's too speculative mind wove over the subject, and have brought us back to the observed facts of three centuries ago.

Diday's work on Infantile Syphilis is an elaborate proof of the genuineness of the cases we have cited from Amatus Lusitanus and Fallopius; and if we turn to Mr. Henry Lee's, we find cases which are the repetitions of those of Torella and Botallus, such as the old woman syphilised by kissing her granddaughter—a child by its nursemaid; and a young woman from using a spoon after an infected fellow-servant.(g)

Kind reader! when we began this sketch we wished to do justice to English syphilographers, and thought we could finish it in three columns. Our matter far exceeds this measure. Here we must pause for the present. But we must take an early opportunity of briefly sketching the history of the disentanglement of gonorrhœa and syphilis, which is really due to Edinburgh; of the separation of syphilis into infecting and non-infecting, in which Mr. H. Lee's labours are eminent; of the use and abuse of mercury—and of the *nonconformable* cases which Dr. Marston has so ably catalogued. Ere we conclude now, we take the opportunity of recommending Dr. Freeman J. Bumstead's work on Venereal Diseases as a remarkably clear and full systematic treatise on the whole subject.(h)

Professor Owen. — On Monday this gentleman delivered the last of his course of lectures at Birmingham "On the Classification, Geographical Distribution, and Geological Relations of the Class Mammalia." The lectures have been throughout well attended.

(e) "Traité Pratique des Maladies Vénériennes." Paris, 1838.
(f) Medico-Chirurgical *Transactions*, vols. 45 and 46.
(g) "Lectures on Syphilitic Inoculation," etc., p. 260, etc.
(h) Published by Blanchard and Lea, Philadelphia. 1864.

EXTENSION OF UNIVERSITY EDUCATION.

The editorial article in our last Students' Number, entitled "Is Medicine a Profession for a Gentleman to Follow?" has afforded one of the leading Dublin newspapers a text for some very pertinent and well-weighed remarks on the present social position of Medical men. Agreeing with us that the Doctor in the abstract does not enjoy the same social status as the barrister, the parson, or the officer in the Army or Navy, our contemporary opens and discusses the question, "What is it that thus lowers our social prestige?"

The *Daily Express* sees a reason for this in the low standard of general—*i.e.*, of extra-professional—education prevailing amongst us. Medical men, it observes, are sprung for the most part from the middle classes; consequently, if they are to be admitted on terms of equality into the best society, "something more is wanted than the mere possession of professional knowledge, and this something is supplied by a cultivated intellect and polished manner. High education is accepted as the equivalent for high rank." To raise the standard of extra-professional education, it "would make a University degree a passport to the Profession, as it is a passport to the professions of the Church and Law. Not that we consider that every patient would die, like the sick man in Gil Blas, because his Medical attendant was ignorant of Greek; but a varied education liberalises and expands the mind, elevates the possessor in the social scale, and even in a utilitarian point of view renders him a more useful member of society." The *Daily Express* then passes a high eulogium upon the Universities of Oxford and Dublin as "the only Universities which maintain the old educational qualification, and insist that the graduate in Medicine must have been previously a graduate in Arts." In certain respects, however, it claims a superiority for Dublin, especially in the more reasonable expenditure both in time and money which it requires for its Medical degrees, the said expenditure at Oxford being very properly denounced as tending "to place an embargo on poverty and a premium on wealth." On the general question of University education, its advantages and difficulties to Medical students, we wish to make a few comments, and shall illustrate them by reference to the case of Oxford.

The advantages which such a University as Oxford offers to students willing and able to profit by them are indisputably of high value. Some of these are peculiar to it as a University, some of them not. The only advantages of the former class, we presume, are—(1) the stamp of its degrees, which always carries with it a certain prestige, and helps a man on in the world by bettering his social position; (2) its incentives to, and substantial rewards for learning, in the shape of scholarships and fellowships—the value of such prizes as these (and, let us add, at Oxford, the iniquity of keeping them out of the reach of poor students who cannot afford the expense of collegiate residence) speaks for itself. But a University offers certain other advantages which, though not confined to it exclusively, are to be had there in greatest perfection. These appear to us to be, (3) association with gentlemen, which gives the student opportunities of making useful friends, of measuring himself in work, in talk, and in play with his equals and coevals, and thus by rubbing off his sharp corners and teaching him his proper level, makes him in the end a more agreeable, probably more useful, member of society. This, however, is an advantage which the very poor student has in great measure to forego. His circle of acquaintance will necessarily be very limited; amusements and entertainments he cannot afford; and, unless he compensate this loss of liberalising society by attaining high intellectual culture, it will have been hardly worth his while coming to the University. This brings us to consider (4) the consummation of all, that highly prized "liberal education" which a University is expected to confer, and the low standard of which (the *Daily Express* so justly observes) among Medical men tends to lower them in public

esteem. A liberal education generally implies a fair acquaintance with the history, languages, and writings of some nations other than one's own—especially those of ancient Greece and Rome—together with a certain amount of metaphysical and mathematical knowledge, and now-a-days at least a smattering of one or more of the inductive sciences. Such in the main is the course of study prescribed at Oxford, and the education of the student who is able and willing to make the best of it richly deserves the epithet "liberal."

But this again is a result which a very large proportion of those who graduate at Oxford fail to attain. *Some* doubtless secure it, and in after life turn it to right good account. These are the students of good capacities and good previous education, who read steadily and with profit, and pass their examinations with credit; and still more those who compete for honours. But the number of these is comparatively small; and we have good authority for saying that the great majority of men who go to Oxford are men of only mediocre capacities and attainments—men who read with little or no lasting profit to themselves, and do little more than just shave through their examinations, and that too often by means of a demoralising system of cram. To acknowledge such men to be liberally educated, in the higher and legitimate sense of the words, is impossible. Their academic residence has very possibly given them gentlemanly tastes and a polished exterior; but to dignify with the epithet of "liberal" either the amount of knowledge they have gained or the mental discipline they have gone through is simply to degrade that honourable term. The world, it is true, gives them *credit* for being liberally educated (thanks to the prestige of the B.A. after their names, not to their own deserts); but they have scarcely any higher claim to the title than the ordinary run of youths of 17 or 18 who have been fairly taught at a good public school. It is a well-known fact that, while the Oxford Pass-Examinations rigidly exact a certain standard of learning, this standard is by no means a high one—not much higher than a well-taught youth on leaving his public school can reach with but too little additional work. And here comes the question—Is it worth while for youths of the kind we have been describing (*i.e.*, youths mediocre in their industry, aims, capacities, and attainments) to go to an University like Oxford? It is a question on which there is by no means unanimity of opinion. For our own part, we do not see what good they gain commensurate with the time and money they spend, nor what right they have to the social benefit of a University degree (if they get it at all) when they have failed to grasp those higher educational advantages which constitute its essential value. In the case of intending Medical students (of this same mediocre sort), with the prospect of a difficult Profession before them, an Oxford education seems to us quite out of the question. The best thing for these, as well as for those who, though competent to reap, are unable to afford the advantages of an University training, is to get the best education they can at a good public school. Indeed, the Medical man who has obtained this, and has the manners and feelings of a gentleman, will never have to complain of his social standing.

THE WEEK.

THE "DIRTY QUACKS" AND AN ENLIGHTENED PRESS.

Whilst a man is on his trial, English fair play demands that no attempt shall be made to prejudge his case. We will, therefore, not say one word as to the man Wray, *alias* Henery, who, with an alleged accomplice (as appears by a report in another column), has been apprehended and held to bail on the charge of attempting to extort money from a military officer. Let us merely again direct attention to what we said in a late leading article on the wholesale corruption with which the rising generation is threatened by the devices of the "Dirty Quacks." Almost every channel of intelligence is poisoned by these wretches. As we have again and again said, the newspaper press, the self-boasted instrument of freedom, enlightenment, and morality, is the veriest tool of the "Dirty Quacks." Except *The Times*, *Saturday Review*, and *Guardian*, there are few, even of the professedly religious papers, that do not contain columns of filthy advertisements. And these are cunningly devised to answer two nefarious purposes. To the young, ardent, curious boy or girl they pique the imagination, already too prurient, and offer an insight into the mysteries of the sexual relations; whilst to the hypochondriac they offer dismal visions of decay and imbecility, and fill them with fears lest the common phenomena of manhood should be precursors of impotence. For the idle saunterer along the streets, anatomical museums are provided in which licentious imagination can gloat over the details of the dissecting-room. A letter from Dr. Blount shows that no man can be sure that even his daughters may not receive by post a pamphlet in which all the mysteries of love and marriage are either described or set forth in the table of contents of some work whose title is enclosed. All this is to tempt or terrify the readers to consult the "Dirty Quack," who, when once the victim is ensnared, fastens on him like a leech, and drains his pocket under threats of exposure.

Doubtless much of this series of crimes might be put down by the application of existing laws, and the remainder ought to be met by a special enactment, distinctly making it an offence to circulate publications such as those of the "Dirty Quacks." But how is the Legislature to be moved when the whole press is corrupt? The Tory and decorous *Standard*, the energetic and liberal *Star*, the *Telegraph*, the favourite of cheap eating-houses—all the press, in fact, in town and country, acts as a pander to these meanest and vilest of quacks, and suffer their readers' minds to be polluted with incessant exhibitions of libidinous and disgusting advertisements.

One thing, however, we, as a Profession, can do. We can banish from our own houses all newspapers which admit these advertisements, and we can advise our patients to do the same. Hospital and charitable committees can also be moved, and be taught that it is disgraceful to allow advertisements of anything charitable, or generous, or religious to appear in newspapers under the control, direct or indirect, of the Dirty Quacks.

BAKEHOUSES REGULATION ACT.

The parish authorities of St. Mary, Islington, have taken the initiative in prosecuting bakers under this act for permitting their bakehouses to be used as sleeping places by their workpeople. Nine summonses have up to the present time been taken out and eight convictions obtained. The importance of this lies in its having been held by the magistrate at the Clerkenwell Police-court that the sleeping in the bakehouse is an infringement of the 5th section of the Act, which provides that "no place on the same level with a bakehouse and forming part of the same building shall be used as a sleeping place unless it be constructed as follows: that is to say, unless it is effectually separated from the bakehouse by a partition extending from the floor to the ceiling; and unless there be an external glazed window of at least nine superficial feet in area, of which at least four and a-half superficial feet are made to open for ventilation. At the suggestion of the Medical Officer of Health, Dr. Ballard, the Vestry of the parish appointed a special inspector to visit the bakehouses at night. The parish of Hackney we hear are about to make a similar appointment. It is to be hoped that a movement thus commenced will be carried on by other parishes. The editor of the *Bakers' Record*, a newspaper circulating in the trade, maintains that "night work" is unnecessary, and regards this section of the Act as an endeavour to abolish the present wretched system by a side wind. He trusts "that the movement now being made in the trade will cause its members to wake up to serious thought and action, to get rid of a system at once contrary to nature, humanity, and self-respect."

VACCINATION *v.* SYPHILIS.

M. Lukomski thinks that he is badly treated by the Profession on the Continent—in vulgar parlance, he clearly is of opinion that he is being "snubbed." He is evidently an enthusiastic gentleman. Not that he is blameworthy on this account, for this would be a poor world were there no enthusiasts in it. Our enthusiasts are the very people who revolutionise public sentiment. All we can say is that M. Lukomski must take heart, and if his discovery is worth anything, all the Academies of Medicine, that are or ever will be, will not succeed in extinguishing his new light. But our readers may, perhaps, ask, who is M. Lukomski? and what grand discovery does he claim to have made? We will tell them. M. Lukomski is a Captain of the Corps of Foresters in the Russian service, and his discovery is as old as 1858, and is this, namely, that vaccination is a remedy for syphilis, and up to a certain point prophylactic against syphilis. The Physico-Medical Society of Moscow devoted eight sittings to the discussion of M. Lukomski's discovery, and then, much to the disgust of M. Lukomski, came to the resolution that, although reiterated vaccination exhibits some influence over the disappearance of "secondary accidents," in other respects it has no influence at all, and they finally determined that they would not submit the discovery to the test of experiment. The *Revue Médicale* of last April contains M. Lukomski's statement, *ex parte*, in the form of letters to the editor of that journal.

LUNACY.—THE LAW ON THE SUBJECT OF RECEIVING SINGLE PATIENTS.

We call the attention of our readers to the following advertisement, which has been lately issued by the Commissioners in Lunacy. It is of the greatest importance that it should be known that any Medical man who receives an insane patient, be he lunatic, idiot, or of unsound mind, into his house for profit (unless he be a committee appointed by the Lord Chancellor) without the same form of order and Medical certificates as are required for the admission of patients into a licensed house, is liable to prosecution for a misdemeanour. We have reason to believe that this enactment is either unknown to, or overlooked by, many Medical men. The case of Mr. Wilkins, of Ealing, who was lately tried and convicted at the Central Criminal Court for contravening it, proves that the Commissioners are determined not to connive at its neglect. We believe that, on the whole, the law in question is a just and necessary protection to the public, and our Profession will best consult its own interests by yielding to it implicit obedience:—

"Office of Commissioners in Lunacy, 19, Whitehall-
"place, October 10, 1864.

"The Commissioners in Lunacy having reason to believe that many persons of unsound mind are illegally received or taken charge of, and that the law relating to insane persons not in asylums or licensed houses, but under individual care as 'single patients,' is extensively violated, desire to draw the attention of Medical Practitioners and others to the provisions of the 8th and 9th Victoria, cap. 100, sec. 90, as amended by the 8th Section of 16 and 17 Vict., cap. 96.

"By these enactments no person (unless he derives no profit from the charge, or be a committee appointed by the Lord Chancellor) can receive one patient in any unlicensed house, neither can any person take care or charge of any one patient as a lunatic or alleged lunatic without the same form of order and Medical certificates as are required upon the admission of a patient into a licensed house (copies of which are to be sent to the Commissioners in Lunacy, together with other particulars), which are fully stated in printed instructions, to be obtained on application at the office of the Commissioners, 19, Whitehall-place.

"By the first-mentioned Act, every person neglecting to comply with the requirements of the statute is liable to prosecution for a misdemeanour.

"By the interpretation clause the word 'lunatic' is declared to mean 'Every insane person, and every person being an idiot or lunatic, or of unsound mind.'

"According to the law, as laid down by the judges of the superior courts, the provisions and penalties of the Act apply to all cases of insane persons taken or retained under care or charge in unlicensed houses, whether or not they were of unsound mind when first received.

"The Commissioners will feel it their duty in cases of violation of the law hereafter brought under their notice to proceed by indictment against the offending parties.

"By order of the Board,
"W. C. Spring Rice, Secretary."

THE DEATH FROM ALLEGED VIOLENCE IN THE GREEN-PARK.

The particulars of the case of George King, a gas inspector, who recently died from the effects of injuries in the Westminster Hospital, are of great importance, not only in a Medico-legal point of view, but because they directly affect the character of one of our large Metropolitan Hospitals. We therefore draw attention to the evidence already given before the Coroner's court, which has been a second time adjourned for the purpose of obtaining further information. In the present stage of the inquiry we abstain from comment:—

"On the afternoon of September 30 the deceased man parted in Piccadilly from a man in the employ of the Gas Company to go home across the Green Park. It was then 4 o'clock. He was then sober, but complained that he was 'queer' from the effect of blowing down gas-pipes. At twenty minutes to 5 o'clock he was found by a police-officer lying on the grass in the park. He rose as the officer approached, but fell heavily, and appeared to be at the point of death. He was therefore carried to St. George's Hospital, where the House-Surgeons considered him to be insensible from drink, and upon his recovering a little he was taken away to the police-station in King-street, Parliament-street, and locked up, as he could not give his address. The next morning he was bailed out and taken by his friends—one of whom remarked, 'There has been foul play here,'—to Westminster Hospital, where he was stripped and examined. Numerous bruises, apparently from kicks and blows, were found on his head, face, hands, arms, abdomen, back, and chest, while the skin had been knocked or kicked from his legs in some places. His skull was dreadfully fractured, and a sinus was ruptured. He died on the following Wednesday. The remarkable part of the case, however, was that the Resident Medical Officer and House-Surgeon of St. George's Hospital stated that they saw no injuries on the deceased's head or hands (they did not examine his body) when he was brought in by the police. A witness named Holland, however, said that he noticed a bruise on the head, and it was stated that it was very dark in the Hospital. The House-Surgeons of that Hospital suggested that the injuries might have been self-inflicted, by falls over furniture, etc., at the police-station. This the police denied, and it, indeed, hardly seemed possible, but the Inspectors went further, and said that the deceased appeared to have no injuries when he was bailed out on the Saturday morning. Mrs. King's evidence disposed of this suggestion, for she proved that she said to the police at the moment, 'You have murdered my husband while he was in your hands.'

"The cell in the police-station was inspected by the Coroner's jury. It was a small room ten feet long by six feet wide. A fixed bench two feet in width ran round two sides of it in such a manner as to render the space of the floor available for walking or falling violently upon very small indeed. All the edges of the bench were planed off, and there was hardly an angle in the cell upon which a person could fall so as to hurt himself. The floor was asphalted and covered thickly with sawdust. It was remarked by a juror that if a man desired to commit suicide by dashing himself about in such a cell he could not possibly do so.

"A Mr. John Matthews deposed that on September 30 he was going across the Green Park, between 4 and 5 o'clock in the afternoon, when just past the gate, near Stafford House, he saw a man on the gravel path endeavouring to rise. In endeavouring to rise the man fell back again on his side. He seemed to strike his forehead against the ground. He rose immediately, staggered back, and fell on the back of his head. It was a most fearful fall, and he lay as if dead. He ran forward and lifted him up, and sent a boy for assistance. A policeman came and the deceased was lifted on the grass wholly insensible. A gentleman smelt his breath, and said he had not been drinking. He had not staggered like a drunken man, but like a person giddy, or in a fit. The witness observed that there was

a bruise on the forehead, and an injury at the back of the head. He would not be surprised to hear that the dreadful fall had fractured the deceased's skull. He did not fall against the railings. The railings were a yard away from him. He might have fallen against them before the witness saw him. The noise of the fall was a dull heavy one. There was no sound of crashing, etc."

Several witnesses proved that the deceased was not intoxicated on the afternoon in question, but that he complained of being "queer" from the effects of gas, and it was shown that partial insensibility was not an unfrequent result of inhaling an atmosphere containing it. It was proved that the man's head and hand were dreadfully bruised when he was bailed out at the police-station, and that he was shivering and insensible. He received no injury in the transit from the police-station to the Westminster Hospital. The following was the evidence given at the adjourned inquest by the Resident Medical Officers of St. George's and the Westminster Hospitals. It will be seen that the accounts given by these gentlemen are apparently quite irreconcileable:—

"Mr. Jones, Medical officer of St. George's Hospital, recalled, said that he had seen the police cell in question. It was in a better state than he expected to find it. He would say that it was possible that the deceased might have received the injuries in the cell, but it was not probable. He had examined the deceased when he was brought into the Hospital on the Friday night, and saw no bruises. There was ample light, and at a subsequent period the gas was alight. He was still of opinion that there was no lesion of the brain when deceased was brought in. The eyes were sensitive to light. The skull might have received the fracture from the fall mentioned, but the rupture of the sinus was an enormous one, and that could not have taken place or the blood have issued from it at that time. He did live afterwards for five days with the rupture, but he was then wholly unconscious. He had heard Cazely's (a gas inspector) statement as to the effects of gas, but in that case and in others known to witness insensibility took place at the instant. The deceased remained conscious for a long time. The witness treated deceased for intoxication, but did not use the stomach pump. He could not say whether the fall was or was not the cause of death."

"Mr. St. Aubyn Hawken, House-Surgeon to the Westminster Hospital, said that the fall spoken of was one that might have produced a fracture of the skull, but he was led to suppose that it did not on account of the peculiar spot from which the deceased's fracture commenced. It began midway between the occipital protuberance and the ear, that was to say in a hollow; if the fall on the back of the head had done the mischief, the fracture would have been produced elsewhere. No blow struck on any other part of the head would produce a fracture in the spot mentioned. There were fourteen distinct and separate bruises on the head externally—three on the forehead, seven on the top of the head, and four at the back of the head, one of the latter being behind the left ear. All had been inflicted within a few hours of the time of witness's first seeing him. He could not tell the exact number of hours, but the bruises were just getting dark in colour. The blow behind the ear had produced the fracture of the skull and the rupture of the sinus; but the clot of blood could not have formed on the brain when Mr. Jones saw the deceased, or he must have noticed the symptoms. Consequently, witness was led to believe that the rupture of the sinus was only completed after reaction had set in. The deceased had experienced reaction before leaving St. George's, for he partly roused himself up, and witness believed that if the fissure of the skull then existed the blood would instantly have flowed from the rupture, which was not the case. It was utterly impossible that the deceased could have inflicted the injuries on himself in the police-station. Falling down the flight of steps into the park could not have produced the injuries on the deceased.

"Mr. Freeman, House-Surgeon at St. George's Hospital, said that he examined the deceased when he was brought in from the Green-park, and there were no bruises or grazing on his head. He agreed entirely with Mr. Hawken as to the time at which the rupture of the sinus must have occurred.

"Mr. Matthews, recalled, said that in the park he noticed a bruise and also a graze on deceased's forehead and head.

"Mr. Freeman said that he would state positively that there were none that he could find. If there were as many as stated by Mr. Hawken he must have seen them. His impression was that deceased was suffering from the effects of intoxication.

"The coroner said that the case was far from being cleared up. The Medical evidence especially had rendered it impossible to arrive at any conclusion, and he should therefore adjourn for further evidence."

MILITARY SURGERY IN THE CONFEDERATE STATES.

The very able and interesting letters which our own Correspondent sends us from the army that is besieging Richmond have given our readers a good insight into the Medical history of one of the parties in this frightful struggle. The third edition of Dr. Chisolm's "Manual of Military Surgery,"(a) which has just reached us, shows us how they fare on the other side. This work is printed on paper at least as good as that on which most periodicals are printed on the other side of the Atlantic, and is illustrated with twenty-six useful lithographic plates, representing the most frequent Surgical operations, and some of those handy apparatus which the American Surgeons have devised for fractures. The summary which it gives of Military Surgery is very clear and concise; but we need scarcely say that even more interesting than any Surgery can be are the glimpses it gives of the inner life of that heroic nation, which, rightly or wrongly, is engaged in a death struggle for independence. As we said in noticing the first edition, there is an absence of levity and of braggadocio, and an air of sobriety and thoughtfulness which bespeaks the favour of the English reader. There is no attempt to underrate the gravity of the national circumstances, or to hide any of their misfortunes or defects. "After three years of bitter experience," says Dr. Chisolm, "we are only now learning the art of war;" and to this art all the available male population is serving its apprenticeship. In most countries, as Dr. Chisolm confesses, the recruiting department endeavours to select fit men; but in the Confederate States the instructions are to "allow no one capable of performing any duty to escape, rather than to select men for their physical perfection." Entire districts have thus given up their available male population—the only men left behind being the old, decrepid, maimed, and diseased. But, as Dr. Chisolm plainly shows us, this system does not work well: "many totally unfit for military duty are forced into the ranks." Hence they go to the Hospitals, and there they are a burden and expense to their country, which they would have served far more effectually if allowed to have continued labouring in their usual agricultural or mechanical occupations. All Dr. Chisolm's observations show that the best soldiers are those who enter military service by choice, and not by compulsion. One point which seems strange to an Englishman is the greater value set upon *town* than on *country* recruits; but it really is the fact that the country recruits who have never had the *measles* are prostrated by it to a degree hardly credible to us, and, after it, fall victims in large numbers to pneumonia and phthisis. But, after having run the gauntlet of this and some other camp diseases during the first few months, the soldier reaps the benefit of a life in the fresh air. "The physical improvement is surprising which the gloved members of high life exhibit after even a few weeks' campaign even in the worst weather." Soldiers who have lived for months without tents, sleeping under trees, exposed to dews and rains," find themselves suffering from colds and catarrhal affections only when they are permitted under furlough, to enjoy a long-wished-for visit to their families, with the now doubtful comfort of a close room and soft bed." Much the better are they, too, when labour is added to exposure. This, says Dr. Chisolm, was shown amongst the troops protecting the batteries in the neighbourhood of Charleston harbour before the taking of Fort Sumter. Clerks, merchants, and professional men, many of them of

(a) A Manual of Military Surgery for the Use of Surgeons in the Confederate States' Army. By J. Julian Chisolm, M.D. Columbia: Evans and Cogswell. 1864.

delicate frames and frail constitutions, obeyed the call to arms, and exposed themselves upon sandy islands directly upon the beach, where they were badly housed, irregularly fed, and miserably watered. Their duties were with pick and shovel, to throw up redoubts, establish batteries, and mount heavy ordnance during the day, and to keep guard by night, sleeping when off duty on the wet sand. Spite of the exposure, the sanitary condition of these troops was excellent, and many of delicate frame returned in two months sturdy, robust men, and some of them twenty-five pounds the heavier. Dr. Chisolm pleads loudly for *work* for soldiers. He says that when detained near Manassas the health and *morale* of the army would have been augmented by the toil of road making, more especially as those roads would have enabled supplies to have been more regularly brought to the front. Often, he says, in the army of Virginia an order to erect works dispelled an epidemic of *ennui* and home sickness, and brought back health and gaiety to the camp. *When they have good clothing*, says Dr. Chisolm, the Confederates enjoy better health in the *bivouac* than under tents. But how is this clothing to be had? Dr. Chisolm says deliberately that "it was only by a general appropriation of clothing found on battle fields that many of our soldiers were made comfortable." In like manner he does not conceal the deficiency of articles of food. The Government allowances to the troops of meat, biscuit, vegetables, whiskey, tea, coffee, are most liberal; but alas! they are like the liberal allowance of an Irish nobleman to his son: they exist on paper, but are not given, for the very obvious reason that they are not to be had. The rations are, in fact, beef or bacon and flour; and on these, says Dr. Chisolm, the hardy Confederate veterans preserve a robust health. Altogether the frank and truthful exposition of Confederate camp life given by the author tells very much in his favour. He exhibits some evidences, too, of improvement. The volunteers are more amenable to discipline, and are not dirty as they once were. Certainly if any nation struggling for existence wants to know how to wage a great war on very slender means, it may get many a hint from Dr. Chisolm.

FROM ABROAD.—THE HORSE-FLESH CONFERENCE IN PARIS—MAINTENANCE OF PROFESSIONAL DIGNITY IN BELGIUM—NEW DISCUSSION ON HOSPITAL HYGIENICS.

Meetings, Conferences, and Congresses always abound at this time of the year, and one has recently been held at the Paris Acclimatisation Garden for the purpose of promoting the greater consumption of horse-flesh as an article of diet. All those who partook of the banquet provided pronounced the dishes of equine delicacies to be first rate. It seems, however, that the practice of eating this description of meat is not making very satisfactory progress, and M. Decroix, upon whom the mantle of Isodore Geoffrey St. Hilaire seems to have fallen, has put forth an appeal to the public, in which all the arguments in favour of horse-flesh diet are strongly stated. In the first place, he says that the resemblance between meat derived from the ox and that from the horse is so complete, that for the last year he has been in the habit of substituting the one for the other without any of the guests at his table recognising the difference. It must be remembered, however, that he is speaking of the ox used as a brute of burden, and not the juicy beast that adorns British tables, and whose predominance is in little danger. Putting aside the exaggerations of the promoters of this movement, there can be no doubt that the poor, who at present get little or no meat of any kind, would derive advantage from a plentiful supply of horse-flesh, and the expediency of its introduction among ourselves may be well entertained. It is an object of large consumption in Prussia and other parts of Germany; and as far as the experiment has been tried at Paris, the poor have eagerly availed themselves of the opportunities offered them for procuring it. Three times the amount of horse-flesh may be procured for the same money as ordinary meat, and thus a more nutritious diet furnished to the indigent; while it is to be hoped that the spectacle of soldiers starving on the field of battle when killed and wounded horses are to be had in abundance will not be repeated. The source of supply, under ordinary circumstances, M. Decroix regards as sufficiently abundant, and is found in horses which are unfitted for service by age, viciousness, accident, etc., the value of which is not more upon an average than from 20 to 30 francs each; and when the prejudice against this food has been overcome, not only will the number of horses devoted to its supply be much greater, but many will be also sold at higher prices for slaughtering before they are exhausted by age or disease. It is also a matter of importance to the proprietors of horses that their money value should be raised. France and Algeria possess about 4,000,000 horses, asses, and mules (the flesh of the mule being pronounced by competent *gastronomes* as better than that of the horse, while itself is excelled by that of the ass), representing 600,000,000 kilogrammes of meat, which, at ½ franc per kilo., gives 300,000,000 francs!

We have often had occasion to observe that among the Continental Practitioners there is a greater sensitiveness as to the maintenance of Professional dignity than among ourselves. A new instance of this has just occurred at Brussels. It seems that some mutual societies have been formed there for the purpose of obtaining Medical attendance at reduced prices, and that they have freely advertised their projects in the newspapers. In this country we should probably content ourselves with silent disapproval of the procedure, but the Brussels Practitioners think differently, and at a meeting of the Medical Society of that city a protest was recorded to this effect: "The Society of the Medical and Natural Sciences of Brussels, justly moved and deeply afflicted at seeing advertisements in the newspapers of mutual societies having for their object the obtaining Medical and pharmaceutical services at reduced charges, protests with all its might against the foundation of any such associations, which it regards as equally adverse to the honour and dignity of the Medical Profession and the interests of their patients; and declares its intention of maintaining in its full and entire signification the resolution which was passed in 1845, to the effect that 'the Society considers as highly blameable any Professional man who places himself at the disposition of provident associations having for their object a mercantile speculation.'" The *Presse Médicale Belge* warmly approves of this protest, declaring that "our noble Profession must not be defiled by associations of this kind, and merchants must not be allowed to penetrate into the temple. We do hope, therefore, that those Practitioners who have been misled into joining these associations will not hesitate, now apprised of their tendency, to repudiate them and explain their procedures." We fear that similar societies would be viewed with more calmness on this side of the Channel, accustomed as we are to the infinitesimal payments of clubs and friendly societies.

The proposed erection of the new Hôtel-Dieu at Paris has given rise to a new discussion on Hospital hygienics. One which took place upon this subject, a year or two since, at the Academy of Medicine, our readers will remember led to no practical result, the older members of that body doing their best to neutralise the *exposé* of the manifold defects of the Paris Hospitals which was then made. It having become known, however, that it was determined to erect a vast Hospital capable of containing 800 beds on the site of the Hôtel-Dieu, several members of the Paris Surgical Society have determined to do their best to prevent the perpetration of what they regard as a monstrous folly and most mischievous procedure. To this end they have opened a discussion, and have invited the members of the Hospital Medical Society to join them in the consideration of the subject. Advantage has already resulted from their action in the matter, as it is now said that the Administration has reconsidered it, and has determined that the new Hospital shall not, at all events, contain more

than 600 beds, and possibly only 400. M. Trélat opened the discussion, and he laid down as his fundamental proposition that a Hospital, above all things, must be well ventilated and well lighted—that is, it should be so disposed that every part of its structure may be freely exposed to the external air. That it is not enough to construct spacious wards, and force air into them by apparatus, however ingenious, is shown by the experience of the Lariboisière, where, notwithstanding the large space allowed each patient, and the elaborate ventilation provided, the highest mortality prevails of any Hospital in Paris. The various buildings of which a Hospital consists should all be accessible to air and light, and even the changes of season and atmospheric agitation. Wings, or any form of attached buildings which prevent this, are mischievous. The Hospital should be small, so as to contain from 200 to 350 beds at the most; and, if the locality requires it, such constructions should be multiplied, at sufficient distances from each other to offer no obstruction to natural ventilation. In such a Hospital the amount of space for each patient should be from 50 to 60 cubic metres; while if, as first proposed, the new Hôtel-Dieu is to contain 800 beds, there will be but 23 cubic metres! To the objection that small Hospitals are more expensive to construct than large ones, M. Trélat opposes the fact that at the Lariboisière the expenses mounted up to the enormous sum of 17,000 francs per bed, and would reach, in the projected Hôtel-Dieu, even 30,000 francs per bed! The ventilation alone at the Lariboisière cost 600,000 francs, and the baths at the St. Louis a still higher sum.

M. Lefort, so well known to many of our readers during his investigation of the London Hospitals, delivered a discourse characterised by consummate ability, but an account of this we reserve for next week.

NOTE ON THE POSITION OF THE LEAD AND WATER QUESTION.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

An observation in the Medical History of Birmingham (*Medical Times and Gazette* of October 15, page 419) on the effect of saline substances in water in preventing the oxidation of lead, has given rise to inquiries as to the exact position of the lead and water question. In the following remarks the principal facts on the question are briefly embodied:—

Until recently the popular creed, professional as well as public, on this subject has been that,—

1. Pure or soft waters alone act (a) on lead, and do so in proportion to their purity or softness.

2. A minute proportion of certain neutral salts in water prevents its action on lead.

3. Hence hard or impure waters do not act on lead, and may be safely stored in leaden cisterns and conveyed through leaden pipes.

In 1858, however, Dr. Lauder Lindsay, of Perth, laid before the British Association (b) the records of a series of experiments and observations made by him on this important subject during the previous year. His main or general results were tabulated in the following series of propositions (c)—viz., that,—

1. Under certain circumstances pure or soft waters *do not* act on lead.

This was well illustrated by the results of the inquiry instituted in 1854-5 by the Town Council of Glasgow, in connexion with the proposed water supply to that city from Loch Katrine. This inquiry cost £5000, and was of the most extensive kind and exhaustive character. It proved *inter alia* that Loch Katrine and other equally pure or soft waters (containing under 2 or 2¼ grs. per gallon of solid matter, with a hardness of 0·6 to 0·8 of Clark's scale) exerted, under given circumstances, no deleterious action on lead. (d)

2. Hard or impure waters, sometimes containing abundance of the very salts which are generally supposed to be most preservative or protective, *do act* on lead, and with the same rapidity and efficiency as pure or soft waters. This was illustrated by the destruction of lead cisterns, through the erosive action of hard water, in the Murray Royal Institution (an Hospital or retreat for the insane of the middle classes), near Perth, of which Dr. Lindsay is the Physician. This early destruction of lead first directed his attention to the subject (e).

3. We are in possession of no satisfactory information anent the causes of the varying action, under different circumstances, of waters on lead; information, that is, which is of any practical use in assisting either in predicating or preventing lead-erosion or lead-contamination.

4. *Experimentation on the small scale*, and for short periods, is most fallacious, and frequently dangerous in regard to the practical conclusions thence to be drawn.

5. Contamination of water, both hard and soft, impure and pure, by lead is, in all parts of the kingdom, and under every variety of circumstances, the cause or source of various obscure diseases of man (and also, doubtless, of the lower animals), of the nature especially of dyspepsia and colic. This proposition was abundantly proved by cases of minor diseases induced by lead-contamination of various of the hard or impure waters of London.

6. So uncertain is the action of water on lead, so impossible is it to predicate the nature or extent of that action under the varying mechanical and chemical conditions of water supply of houses and towns, so difficult is it to prevent the possible dangers, so numerous and excellent are the substitutes (f) that may be provided for lead in the construction of cisterns and pipes, that it is desirable henceforth to *abolish the use of lead as a material for the conveyance or storage of water.*

This *practical* proposition, to which all the others converge or lead, is now being adopted and acted upon by all our most competent and eminent authorities.

The Royal Victoria Military Hospital at Netley, which ought to be the embodiment of all modern progress and discovery in sanitary science and hygiene in their applications to the construction of human dwellings, uses *no lead* in its water cisterns or pipes. A writer in *Good Words* (g) says of this Hospital, "The *water supply* has been carefully attended to, and to prevent the possibility of patients suffering from *lead contamination*, not an atom of that metal has been used in the construction either of the pipes or cisterns. The former are made of block *tin*, and cost £9000. It would be well for the health of the community if in our private houses similar precautions were used.

The Commissioners in Lunacy for Scotland in their regulations anent the construction of lunatic asylums, remark in regard to water supply (h): "It is of the utmost importance that there should be a constant and ample supply of *good water, of which a careful analysis should be made, with a view to determine the proper materials for pipes and reservoirs*, and also in order to ascertain its fitness for the purposes of drinking and washing." The reporters add: "*Lead is an objectionable material for pipes and reservoirs as adulterating the water.*" Dr. Hassall, the "Analytical Commissioner" of the *Lancet*, and the author of the well-known standard work on "Food and its Adulterations," says:—"From the number of samples of water I have received containing lead, I am induced to believe that that metal is more frequently introduced into the system in this way than is commonly suspected. Indeed, so many well-ascertained cases of *lead poisoning*, arising from the use of water contaminated with it, have occurred that I am of opinion that the *use of lead for the storage and conveyance of water ought*

(a) When not otherwise specially explained, this action on lead refers only to that which, by virtue of its nature or extent, renders drinking or cooking waters dangerous or deleterious to men.

(b) Chemical Section—Leeds Meeting, September 24, 1858.

(c) These will be found given in his paper "On the Action of Hard Waters upon Lead," in the *Edinburgh New Philosophical Journal* for April, 1859.

(d) Papers on the "Glasgow Water Works," read before the Institution of Engineers in Scotland, Session 1863-4, by Jas. M. Gole, C.E., and Engineer to the said Works. Glasgow, 1864. P. 22.

(e) *Vide* the published Medical Reports of said Institution for the years 1859 (p. 36) and 1860 (p. 14).

(f) The substitutes in question are of very various kinds. Those most commonly used seem to be—for piping—iron or lead tubes, protected by various innocuous compositions, metallic or otherwise. In the great brewing establishment of Messrs. Allsopp and Sons, at Burton-on-Trent, enamelled pipes have been laid throughout their premises. These are iron tubes, enamelled under the patents of Mr. Paris. The enamel, or fused glass, is applied both externally and internally, so that the iron is completely encased; it is incorporated with the metal while it is nearly at a white heat. The same enamel may be applied as a coating for the surface of vessels used for culinary or domestic purposes.—*Builder*, April, 1860.

(g) Article on the Victoria Hospital, *Good Words*, December, 1863, p. 883.

(h) "First Annual Report [1859]:" Appendix C., No. 1, section 6, and No. 2, section 30, pp. 115 and 118.

to be entirely discarded, especially in the cases of small towns and single houses."(i)

Again, the late Dr. Dundas Thomson, President of the Metropolitan Association of Medical Officers of Health, who had for many years given, as a chemist, great attention to the subject of water supply, and than whom, on such a subject, there are no more competent authorities, remarks:—"*It is impossible too strongly to condemn the use of lead pipes and cisterns. They should never be used for conducting and retaining water for drinking and culinary purposes. It is difficult to understand the origin of the employment of a poisonous metal for domestic use.* But its disuse must depend upon the substitution of the builder or iron pipe fitter for the plumber, who has too long monopolised the manufacture of this noxious form of cistern."(k)

The Americans apparently attribute a greater value to this subject than we do, having devoted a goodly volume to the now bulky evidence *pro* and *con*. (l)

In 1859-60 the great lead and water question was the subject of much public discussion in the columns of the *Times*. The result was a general feeling that the public safety lay in the *abolition of lead in the construction of cisterns and pipes for water supply*,—some writers going so far as to recommend a *prohibition by Government* of such use of lead. (m)

PROGRESS OF MEDICAL SCIENCE.

INSUFFLATION A REMEDY FOR INTUSSUSCEPTION.

Dr. David Greig, of Dundee (*Edinburgh Med. Journal*, Oct.) relates four cases of inflammatory intussusception in infants which were cured by insufflation—the nozzle of a bellows was introduced into the rectum, and air thrown in until marked abdominal distension was prodnced. He says that air entered readily, even when injections of liquid were immediately rejected. All the operations appear to have been done on the second day. The cases recorded appear to have been true cases of intussusception of that type which usually proves fatal. The paper is one which we commend to the study of our readers. Dr. Greig truly says that "the remedy is always at hand, even in the poorest cottage, no matter how far away from town. Its application is so simple as to require no direction for its use."

OVARIOTOMY.

In the *Glasgow Medical Journal* for October Dr. C. Clay gives a table showing the results of all his abdominal operations for the last twenty-two years, that is, from 1842 to 1864. The table is worthy to be extracted:—

Cases from 1842 to 1864.	Numbers.	Recoveries.	Deaths.
Ovarian extirpation . . .	110	76	34
Cæsarian section	1	0	1
Entire removal of uterus and appendages (being fibroid) through the parietes abdominales . .	3	1	2
Cutting down upon ovarian tumours (in cases of almost universal adhesions) to reduce their bulk from within and setting up ulceration where removal was impossible .	4	4	0
Cysts tapped and injected with tincture of iodine . . .	6	4	Two filled again.
	124	85	37

The Refugee Poles in Paris.—With a generosity that does high credit to the French Government, M. Duruy, the liberal Minister of Public Instruction, has issued a circular to the rectors of the various Universities, informing them of the resolution which had been come to to admit the young Poles, who, in consequence of recent events, have been compelled to seek a refuge in France, to pursue their studies in any of the Faculties throughout the empire, exempt from all charges.

(i) On "Unsuspected Sources of Lead Poisoning," *Lancet*, April 7, 1860.
(k) On the Proper Sources of Waters for Domestic Supply, *Transactions* of the National Association for the Promotion of Social Science, 1862, p. 615.
(l) "Collection of Reports [Condensed] and Opinions of Chemists in regard to the Use of Lead Pipe for Service Pipe in the Distribution of Water for the Supply of Cities." New York. 8vo, cloth, pp. 343, 9s. London: Trübner and Co. 1859.
(m) *Times*, October 1, 1859.

REVIEWS.

Entozoa: an Introduction to the Study of Helminthology, with Reference more particularly to the Internal Parasites of Man. By T. Spencer Cobbold, M.D., F.R.S., Lecturer on Comparative Anatomy at the Middlesex Hospital. London Groombridge and Sons. 1864. Pp. 480.

In every science it is advantageous to have, every now and then, a fresh starting place. This is gained whenever some competent person gathers together, as into a focus, the results of his own labours and those of his contemporaries and predecessors, marking out, as on a map, with broad outlines the truths which are firmly established, exposing the errors which time has demonstrated, and pointing out how they were fallen into, distinguishing those points of doctrine which demand more extended investigation, and indicating the paths by which it is probable that future inquirers will meet with the most certain success.

Dr. Cobbold has furnished us with such a fresh starting place in the science which he especially cultivates—that of Helminthology; for although his book by no means claims to be an exhaustive treatise, it nevertheless enables the student of Helminthology to comprehend the precise position which that science now occupies. Dr. Cobbold's book is one which will leave its mark in this branch of Medical knowledge for many years yet to come.

The first part of the book is devoted to systematic Helminthology. Notwithstanding the variety in character presented by the entozoa, which has led some observers to distribute these animals in accordance with their special characters among others of a different habitat, yet Dr. Cobbold thinks that the advantages of retaining the entozoa as a distinct group more than counterbalances those of adherence to a plan apparently more orthodox. The most remarkable character which they possess, and that which appears to have determined him in the propriety of thus grouping them together is the physiological character of a tendency to roam. "Migration is the very soul of their prosperity, change of residence the *sine quâ non* of their existence, whilst a blockade in the interior prolonged beyond the proper period terminates only in cretification and death." The following scheme represents his classification of them:—

Helmintha (Class)	Sterelmintha (Sub-class I.)	Turbellaria. (Ord. 1.)
		Trematoda. (Ord. 2.)
	Cœlelmintha (Sub-class II.)	Nematoda. (Ord. 3.)
	Anenterelmintha (Sub-class III.)	Acanthocephala. (Ord. 4.)
		Cestoda. (Ord. 5.)

Each of these orders of animals furnishes Dr. Cobbold with the subject for a separate chapter, in which he discusses the aspect, distribution, number and arrangement, development and general structure of the animals composing it, while the more important genera obtain from him a special consideration. A study of this part of the book is an essential preliminary to that of Part II., wherein the author enters upon what to us, as Medical Practitioners, is the most important and interesting portion of the volume. Part II. relates to special helminthology. It is "an outline of the anatomical peculiarities, origin, mode of development, and propagation of the entozoa infesting man; with a particular account of the injurious effects they produce, including a brief notice of the remedies employed in Medical practice." To this part, then, we shall devote the remainder of this review.

Dr. Cobbold enumerates thirty-one animals which at one period or another of their existence take up their abode in the body of man, as unwelcome guests with an unwilling host—tenants which are often most difficult by any process to dislodge, and who sometimes are so pertinaceous as to remain until death crumbles down the residence they have selected about their very ears. The following is his list of human entozoa; but in giving it, we must premise that to those who have not closely followed the progress of helminthology, there may be a little difficulty in recognising some old and familiar acquaintances under the designations which they now carry. In all instances, however, the student of the volume will find that Dr. Cobbold furnishes him with the *aliases* under which these troublesome creatures have at different times passed in

society. "1. *Fasciola hepatica*, Linnæus. 2. *Distoma lanceolatum*, Mehlis. 3. *Distoma ophthalmobium*, Diesing. 4. *Distoma crassum*, Busk. 5. *Distoma heterophyes*, Siebold. 6. *Bilharzia hæmatobia*, Cobbold. 7. *Tetrastoma renale*, Delle Chiaje. 8. *Hexathyridium pinguicola*, Treutler. 9. *Hexathyridium venarum*, Treutler. 10. *Tænia solium*, Linnæus. 11. *Tænia mediocanellata*, Küchenmeister. 12. *Tænia acanthotrias*, Weinland. 13. *Tænia flavopuncta*, Weinland. 14. *Tænia nana*, Von Siebold. 15. *Tænia elliptica*, Batsch. 16. *Tænia marginata*, Batsch. 17. *Tænia echinococcus*, Von Siebold. 18. *Bothriocephalus latex*, Bremser. 19. *Bothriocephalus cordatus*, Leuckart. 20. *Ascaris lumbricoides*, Linnæus. 21. *Ascaris mystax*, Rudolphi. 22. *Trichocephalus dispar*, Rudolphi. 23. *Filiaria lentis*, Diesing. 24. *Filiaria trachealis*, Cobbold. 25. *Trichina spiralis*, Owen. 26. *Strongylus bronchialis*, Cobbold. 27. *Eustrongylus gigas*, Diesing. 28. *Sclerostoma duodenale*, Cobbold. 29. *Oxyuris vermicularis*, Bremser. 30. *Dracunculus medinensis*, Cobbold. 31. *Dracunculus Loa*, Cobbold." A tolerably long list, happily for Englishmen not all found amongst them, or such of them as stay at home, but considering that our countrymen are almost as much given to roaming as these vagabonds, they are all of interest to us.

Let us glance at what Dr. Cobbold has to say about some of them. The first of the list is the *Fasciola hepatica*, better known by some of our readers possibly under the name of *Distoma hepaticum*, or liver fluke, a parasite which commits most serious ravages amongst our flocks, especially in wet pastures. The importance of this animal to us, however, does not lie simply in this, but in the fact that the fasciola hepatica sometimes finds its way into man. An instance of this occurence was met with by Professor Partridge, and is mentioned by Dr. Budd in the second edition of his valuable work "On Diseases of the Liver." In this case the worm was found in the gall-bladder. Others have discovered it beneath the skin. Dr. Cobbold thinks it may gain access to us either by being swallowed in the larvæ condition upon fresh uncooked vegetables or salads which have been watered with the contents of weedy ponds and stagnant ditches, or by exposure of the naked skin to the surface of moist grass or herbage whereon the larvæ or their molluscous "hosts" abound. (Dr. Cobbold uses the term "host" to designate the animal in which the entozoon is for the time a "guest.") The *tænia solium*, as every one now knows, originates in man from swallowing the beast in a premature form in which it exists in pork as the *cysticercus cellulosæ*, or measle. The mature animal as it is met with in the human intestine is not uncommonly described as having a mouth and digestive canal. Repeated demonstrations have proved this view to be erroneous, what has been thus described being the water-vascular system of the animal. "The entire series of joints, from the head downwards, are traversed by a set of vascular canals, which are doubled in the region of the head. These constitute the so-called aquiferous system. It is usually described as consisting of two main channels, one passing down on either side of the worm, and both being connected by transverse vessels, which occur singly at one end of every joint." The following is Dr. Cobbold's account of the development of this tænia:—"After the proglottis [segment of the mature tænia] (which, it must be borne in mind, is furnished with male and female reproductive organs,) has undergone impregnation by contact with another proglottis, there results from this the formation of eggs within it, which eggs, whilst still within the body of the parent, develope into embryos, the latter still retaining the egg coverings. At this time the proglottis is about to undergo a passive migration, and having detached itself from the *strobila* [the colonial or tapeworm condition of the animal being thus designated], it is soon expelled from the bowel of the host, thus finding its way into some cesspool, or it may be into the open fields. The proglottides move about for a time, but the growth of the multitude of embryos within their interior causes the proglottis sooner or later to burst, and the embryos thus become dispersed; some are thus conveyed down drains and sewers, others are lodged by the roadsides, in ditches, and waste places, whilst great quantities are scattered far and wide by winds or insects in every conceivable direction. Each embryo is furnished with a special boring apparatus, having at its anterior end three pairs of hooks; the entire group of embryos of any single proglottis is consequently called 'the six-hooked brood.' After a while, by accident, as it were, a pig coming in the way of these embryos or of the proglottides is liable to swallow them along with matters taken in as food. The embryos, immediately on their being transferred to the digestive canal of the pig, escape the egg shells, and bore their way through the living tissues of the animal, and having lodged themselves in the fatty parts of the flesh, they there rest to await their further transformation or destiny. The animal thus infested becomes measled, its flesh constituting the so-called measled pork. In this situation the embryos drop their hooks or boring apparatus, and become transformed into *cysticercus cellulosæ*. A portion of this measled meat being eaten by ourselves, either in a raw or imperfectly cooked condition, transfers the cysticercus to our own alimentary canal, in which locality the cysticercus attaches itself to the wall of the human intestine, and, having secured a good anchorage, begins to grow at the lower or caudal extremity, producing numerous joints or buds to form the strobila or tapeworm colony."—P. 220. After describing briefly the symptoms produced by the presence of the worm in the bowels, the author proceeds:—"Distressing as some of the above-described phenomena are, the injurious effects they produce were as nothing compared with the calamities which follow the deposition and growth of the tapeworm larvæ within our bodies—at least when these so-called cysticerci take up their abode in our more important vital organs. Fortunately, the latter contingency is of comparatively recent occurrence, and yet it is probable that at least 100 cases have come to light where the *cysticercus cellulosæ* has caused death by its development within the human brain."—P. 224. The statistics of tapeworms are interesting. "The relative abundance of tapeworm in the human body is in consonance with the habits of the people, but at present our statistical data are rather meagre. Herr Wauruch, of Vienna, states that of 3864 persons treated in the space of twenty years at an Hospital of that city, 206 were affected with tænia. Of these latter, 71 were males and 135 females. The oldest individual affected was a man of 54, the youngest being a girl of $3\frac{1}{2}$ years of age. Most were persons between 15 and 40 years of age. Persons most concerned with animal provisions were those observed to be chiefly attacked; for of the 206 patients 1 was a man and 52 were women cooks, several were butchers, and 11 were eaters of large quantities of meat. Among predisposing causes, the principal were (considered to be) a habitation in a damp neighbourhood and the use of injured aliments, as bad bread, flour, butter, potatoes, etc., but particularly *bad mutton*, pork, and water. "These facts," adds Dr. Cobbold, "are particularly interesting, and their value is not a little enhanced by the circumstance that they were culled at a time long antecedent to our recent helminthological discoveries."—P. 232. The *tænia mediocanellata* would appear, from Dr. Cobbold's observations, to be as frequently met with in the human intestine as the tænia solium. Leuckart has shown that the "measles," or cysticerci which produce them, are to be found in the muscles and organs of cattle, and he has shown by experiment that man becomes infested with this second form of tapeworm by eating imperfectly cooked veal and beef which is thus affected. "Out of 13 tapeworms in Krabbe's possession, no less than 7 belonged to the former species (*mediocanellata*). This agrees with my own experience, for on looking over our museum specimens at the Middlesex Hospital I was surprised to find at least half the worms referable to *T. mediocanellata*. Leuckart also, to whom I showed a selected series, cleared up my doubts as to one or two fragments. Moreover, Dr. Aitken finds this species more abundant amongst the soldiers stationed at Fort Pitt than the so-called common tapeworm. Finally, it has become conspicuously evident that the hookless tapeworm is as abundant in this country as the *tænia solium*. One may even go so far as to state that, admitting occasional exceptions, the hooked worm infests the poor and the hookless worm the rich. This circumstance accords with the fact that the lower classes subsist chiefly upon pork, whilst the wealthier prefer mutton, veal, and roast beef."—P. 242.

The seventh and eighth chapters are occupied by a most excellent account of the tænia echinococcus, and of the same animal which, in its immature condition, constitutes the varieties of hydatid so commonly found and so fatal when present in the internal organs of man. In the mature—strobila—condition it is a little tapeworm, seldom exceeding the fourth of an inch in length, and developing only four segments, and it inhabits only the dog and wolf. "The eggs, supposed to be about 5000 in number in a full-grown joint, develope in their interior the usual six-hooked embryo. These embryos are introduced into our bodies (and into those of other parasite bearers) by our partaking of water or food into

which the eggs have been carried by accident or otherwise. After arriving within the apparently selected host, the behaviour of the embryo accords at least in the first instance with that of other tapeworm proscolices. With an especial liking for the liver, they bore their way into this organ, or are carried along the circulating current into other organs. In these situations they sooner or later become transformed into simple vesicular, bladder-like bodies, commonly called acephalocysts or hydatids."—P. 257. A most interesting account is then given of the mode of formation and growth of these hydatids, and of the differentiation by means of which there are developed on the endocyst of a maternal hydatid either echinococcus scolices or brood capsules developing in their interior a brood of scolices or ecchinococcus heads or secondary—so-called daughter—bladders. Into this our space will not permit us to enter. We can only commend the description to the study of our readers. That the hydatid disease arises from the tænia of dogs accounts for the great prevalence of the disease in Iceland, and wherever large numbers of dogs are kept. "If this table," (that of Schleisner) says Dr. Cobbold, "be correct, the disease is much more prevalent in women than in men; the explanation of which must be sought for in the difference of the habits of life. No doubt, the water used as drink by the women is constantly obtained from supplies in the immediate neighbourhood of their dwellings, and in localities to which dogs have continual access. Moreover, the women (in Iceland) probably obey more implicitly the dictates of the quacks who supply them with the filthy medicine above mentioned (dogs' urine and fresh dogs' excrement). The comparative rarity of the echinococcus disease amongst sailors is, according to my views, not so much dependent upon the circumstance that the seamen's diet usually consists of salted provisions, as upon the fact that these men can seldom have opportunities of drinking water from localities where dogs abound. Let uncompromising teetotallers beware how they condemn those who had a little wine 'for their stomach's,' or rather for their liver's, sake. It may, indeed, be questioned if the addition of a little alcohol would destroy the six-hooked embryos of *tænia ecchinococcus* whilst still *in ovo;* but, on the other hand, there can be no doubt that water raised to a temperature of 212° Faht. will always ensure the destruction of these parasite larvæ. Boiled water by itself, however, is by no means palatable. The reason why the upper classes so seldom, comparatively speaking, suffer from hydatids may be attributed to the circumstance that those few who drink water take the very proper precaution (?) to see that it is either 'pump' or fresh and spring water—the latter is not absolutely safe—whilst the majority partake of beer or porter, in which (even if the water employed in the brewing process should be impure) no living six-hooked embryos are likely to exist. So far, then, as hydatids are concerned, beer-drinking, on the whole, is preferable to water-drinking; if, however, the so-called Adam's ale is filtered and pure, no evil can possibly result from its moderate imbibition."—P. 284.

The quotations from the work which we have thus selected from its more practical portions will enable the reader to judge in some degree of the quality of the whole volume. The book is beautifully illustrated with 21 coloured plates, comprising 156 separate figures, which, with 82 woodcuts, make a total of 238 illustrations. There is a bibliography attached, which we regard as by no means the least valuable part of the book. It shows the vast literary research which the author has carried out, and certainly astonishes us by its extent. Let us add, finally, that a more handsome volume has never issued from the Medical press of this country. The typography is equal to any that was exhibited at the International Exhibition of 1862; the paper is thick, and the binding plain, but elegant. It is a book which might lie as an ornament upon a Medical man's drawing-room table.

Medical Charities.—The funds of the following Hospitals have been augmented through the liberality of a wealthy merchant of the Jewish persuasion, Mr. Z. A. Jessil, of Savile-row, Burlington-gardens, and Gordon House, Putney, who, in addition to large sums bequeathed to other charities, has left £400 to be equally divided among the North London; the Free, in Devonshire-square; the Jewish, Norwood; and the London Hospital, Whitechapel-road.

At the Quarter Sessions held at Gloucester June 18, the magistrates licensed Sandywell-park Asylum, near Cheltenham, to Dr. W. H. O. Sankey, M.D., *vice* Dr. Samuel Hitch and Mr. J. Yorke Wood.

GENERAL CORRESPONDENCE.

CASE IN WHICH THE GALL-BLADDER WAS WANTING.

Letter from Dr. John Patterson.

[To the Editor of the Medical Times and Gazette.]

Sir,—The following case may interest your readers, and, I think, is worthy of recording:—

On August 25 I was desired by H.B.M.'s Consul to make a post-mortem examination of the body of a man who was reported to have died suddenly the night before at a village a few miles from Cairo. The history of the case is as follows:—The subject, a man about 35 years of age, of full habit of body, and previously of robust health, had during the past three weeks been occasionally subject to paroxysms of difficult breathing resembling attacks of asthma, which passed over in a few minutes, leaving him for a short time quite exhausted. On the evening of his death he had been working harder than usual, unpacking cases, which required him to stoop a good deal. Whilst thus engaged, he was seized with a paroxysm similar to the previous ones, which, however, instead of passing off, as before, increased in violence. His face and neck became livid; froth issued from his mouth and nostrils. He became delirious, and talked wildly for a few minutes; then threw himself backwards in a state of insensibility, and so remained till 11 o'clock p.m., when he died. This is the history as given by his wife. He had been married only two months.

Post-mortem Examination, Sixteen Hours after Death.—Knee, neck, and upper extremities turgid and livid, features drawn as though he had died in great suffering. An external examination of the body showed a considerable difference of the sides of the thorax. The right side bulged out considerably, as high up as the fourth rib, and percussion elicited a dull, flat sound—the left side sufficiently resonant. On opening the body and removing the sternum, the liver was seen lying in what should have been the right cavity of the thorax, pushing before it the diaphragm, as high up as the part above mentioned, corresponding to the dulness on percussion, and on a level with the upper border of the fourth rib. The left lobe extended beyond the epigastric region and over-lapped the stomach. On raising up the liver, for further examination, the gall-bladder was found to be entirely wanting. The most minute examination failed in discovering any trace of it or the duct, or of anything proceeding from the liver to the duodenum to compensate for its absence. There can be no doubt whatever as to this fact, as, from the excessive interest of such an extraordinary departure from the normal state, my colleague and myself made a most careful dissection of the parts. The whole volume of the liver was enormous, at least four times its natural size. The organ was much congested, soft and greasy to the touch, and easily broken down from slight pressure of the fingers, and when cut into there oozed out a large quantity of oily-looking serum; the substance of the liver corresponded in appearance to the enlarged stage of fatty degeneration; the spleen was also much congested, but there was no marked alteration of its structure; the pancreas was in its natural state. The right kidney was very large, fatty, having the appearance of Bright's disease; the left kidney a little larger than natural, and slightly diseased. Stomach and intestines distended with flatus, but otherwise healthy. Lungs greatly congested, gorged with bloody serum; the lower lobe of the right lung quite hepatised; no adhesions. Heart large, soft, and flabby, loaded with fat. Great dilatation of the mitral orifice, which was unusually patent.

The man was stout and well developed, with a decided tendency to adipose deposit. He was not considered a great drinker, and had, to all appearances, enjoyed most perfect health until within a short time of his death. I had myself seen him in Cairo about two weeks before, and then he appeared in good health, having just returned from a long journey from the villages, which involved a good deal of bodily exercise and fatigue.

Perhaps some of your readers may take an interest in this, which appears to me a very unusual, case, and draw from it some curious, if not useful, physiological conclusions.

I am, &c.,

John Patterson, M.D.,
Surgeon, Egyptian Medical Service.

Cairo, Egypt, September 5.

LEGAL INTELLIGENCE.

PROSECUTION OF THE NOTORIOUS "DR. HENERY."

*** The following case being still *sub judice*, we reserve our comments; but we may nevertheless express our strong sense of the obligation which both the public and the Profession owe to Captain Clarke for the moral courage he has shown in taking legal proceedings.

Marylebone Police Court.—On the 14th inst. a summons was applied for by Captain Montague Augustus Clarke, and granted, against Alfred Field Henery and William Anderson, otherwise Wilson, both of 52, Dorset-street, Portman-square, for having conspired by threats and menaces to extort money. This summons was made returnable last Wednesday, when Anderson, or Wilson, alone attended. Henery, who is described in the "Post-office London Directory" as a patent medicine vendor, did not put in an appearance. A second summons was then ordered by Mr. Yardley against Henery.

Mr. Metcalfe, instructed by Mr. Fry, solicitor, of Danes-inn, Strand, appeared to prosecute; Mr. Herring, solicitor, of Stafford-chambers, Stafford-street, Lisson-grove, defended; Sergeant Mulvany, of the Detective Department, Scotland-yard, attended to watch the case on behalf of the Commissioners of Police.

Baldwin, one of the warrant officers of the court, called out the defendants' names, and Wilson only answered. Henery not having answered, Mr. Yardley issued a warrant against him, and sent the officer to see if he could execute it.

Mr. Metcalfe said: I will give just sufficient evidence to justify a remand as against the present defendant. My client some time in August last year was suffering from disease, and, unfortunately for him, he saw one of the advertisements of the so-called Dr. Henery. This person not only puts forward these advertisements, but sends books about, some headed, "Manly Vigour Given," and "Youthful Indiscretion," besides others. We now hear that this man's real name is Wray, and it appears his practice is to send these books to be distributed by post all over the country. My client saw one of these Henery advertisements, and he foolishly consulted him. He received various bottles of medicine, for which he paid £1 1s. each, but he received no benefit, and the medicine was then analysed by the family Physician, and found to be no more than pure water with a little colouring in it. Mr. Metcalfe then stated that other claims had been made upon his client, with threats of exposure, and that they had proved so far successful. He thought that nothing was worse than that persons of the prisoner's class should obtain the mastery of young men, and he expressed a hope that a stop would be put to the system for the benefit of the public at large.

Montague Augustus Clarke, aged about 28, said: I am captain in the 50th Regiment, the depot of which is stationed at Parkhurst. In August, 1863, a book by Dr. Henery was sent to me, and I came to town on the 17th. I went to 52, Dorset-street, and was introduced into a small, dark sort of room. I pointedly asked the man who came in if he was Dr. Henery, and he said he was. I particularly asked him. I have not seen him from that day to this. The defendant now at the bar is not the man. He said he would forward my boxes of medicine. I said I could take them, when he objected to that, and obliged me to give my name and address. I gave him my real address. I asked him how much I was indebted to him, and he said eleven guineas. I asked him what for. He said, "Ten guineas for the medicine, and one guinea for the fee." I can't say whether he said anything about the medicine being expensive. I left the place, and from time to time I wrote to him, and the medicine was sent. After getting through that I sent for some more. I think I sent seven times. I think about February last was the last time I sent. I paid him £85 11s. The first payment was in two £5 notes and two sovereigns, and he gave me the change. The payments were subsequently in these cheques now produced. The last payment made was in April last in a cheque. After that I heard nothing more till June or July, when I received the following letter:—

"Medical Institution, 52, Dorset-street, Portman-square, London, July, 1864.

"No. 3 Private-room, Bugle Hotel, Newport.

"Dear Sir,—Experience has proved that in cases similar to what you are suffering from a personal interview invariably leads to the advantage of a patient, and therefore have requested the bearer, a gentleman of great experience and skill, to see you, as he happens to be in your neighbourhood on a professional visit. "Yours truly,

"A. F. Henery, M.D.
"W. Anderson.

"Captain Clarke, Parkhurst."

It was put into my hands by the ostler from the Bugle Hotel at Newport, Isle of Wight. The prisoner who now stands here I saw upon the 15th of September last. He called upon me at my barracks. His first introduction, as far as I recollect, was that he said he had called on behalf of Mr. Henery. I said I did not want to have anything to do with him. He said, "Are you aware he has a large claim against you?" I said I was not. As we were then talking on the steps of the major's apartments, I said to him, "You had better come to my rooms," where, after some conversation, he said that I had better draw a cheque for £150. I asked him what for, and he said, "To settle Dr. Henery's claim." He afterwards said he would take £100.

Mr. Yardley: State as nearly as you can recollect what you said and what he said.

Prosecutor: I asked him how he made out his claim, and I think he said, "For medicine and advice." He said, "You had better draw a cheque for 100 guineas," and this he repeated about six times. He was longer in my room than I otherwise should have allowed him to be, on account of the rain. I do not like to turn a man out in the wet, and offered to send for a carriage for him. He asked me for a sovereign. I asked him what he wanted it for, and he replied, "For my expenses." I said, "Is that your fee?" He said, "No, my fee is five guineas." I said, "Dr. Henery sent you down, and he must pay you." I ultimately gave him a sovereign, as he said he was only told of the claim the night before, and he had come away in a very great hurry with very little money, and he seemed not to have enough to take him back to town. I asked him for his name, and he said it was of no consequence. I said, "You have the sovereign, and I must have a receipt." This I did more particularly to get his name. The prisoner gave a receipt, and wrote, "Received, on account of expenses, £1," dated September 17, 1864, and signed "H. Wilson." Shortly after this he left me. I said at the time that I should be going to town, and would call at Dorset-street. I wrote to Dr. Henery on the 19th of September, and on the 26th I received this:—

Mr. Yardley: Stop. Let me interpose a question. Was anything said by you to the defendant in September about his former visit to Newport in July?

Prosecutor: I showed him the letter (the one above, dated from the Bugle Hotel). He just looked at it, and I do not think he made any observation. On September 26 I received another letter in the following terms:—

"Medical Institution, 52, Dorset-st., Portman-square.

"Sir,—I regret exceedingly to have to inform you that your letter did not reach me until Saturday night, otherwise it would have received my immediate attention. Nevertheless, I have to remind you that you promised the gentleman who waited upon you at Parkhurst that you would call at Dorset-street. Therefore I do not understand your giving so much trouble in the matter. I have to inform you that my claim for £150 is for Medical advice and medicine. (The letter here states the nature of the disease which the medicine was intended to cure.) If you will satisfy my claim without further trouble, I will give a receipt in full of all demands, or sign any paper that you may choose to draw up, so that you shall not be troubled again by your obedient servant,

"September 26." "A. F. Henery.

Shortly after this another letter was received, in which the Doctor states that he had called at Cox's, the army agents, and found that I had been there on the Saturday. I had been to Cox's before I received the following letter:—

"Warburton's Hotel, Newport, October 5,
"Private Sitting-room, No. 4.

"Sir,—I am here expressly from London to see you, with a view, if possible, to effect a settlement of Dr. Henery's claims, and anticipating your refusal to see me at your quarters is the reason I have penned this, and would recommend you to do so at once, for rely upon it I do not intend journeying here for nothing. Your letter from your solicitor has been received, and I have that and some from yourself with me. Now, supposing I were to inform you application will be made at the War Office, with explanation of case; and if we were to do so, you know what the consequences would

be; or supposing I were to inform you that I expect to be in your neighbourhood in Scotland next week, and that I don't intend leaving here, in the event of your still persisting in your refusal to pay, without making it known in the neighbourhood for what purpose I am here. I am in no hurry, and will allow you time to reflect whether it will be better to pay Dr. Henery's legal and just claim, or submit to exposure of your filthy case.

"I would inform you that I have waited upon one of the head solicitors of Plymouth since I saw you in reference to a claim we had upon his son; and on our explaining what we would do in the event of his not paying us, he soon saw the force of what we stated, and paid us at once. Now, the reason I did not tell you what we intended doing in the event of your not paying when I was here before was because you promised to call in Dorset-street, and relying upon your word as a gentleman was the only reason I did not do so.

"Yours obediently, "H. Wilson."

There was a postscript, which said it was useless for me to say that I was not at my quarters, and that Anderson had seen me there. This letter I forwarded to a relative, and he forwarded it to Mr. Fry, my attorney. To the best of my belief I think it is in the present defendant's handwriting. The handwriting of the receipt he gave me for the sovereign corresponds with it, I think.

A bundle of papers was here put in. Some were receipts, and others were letters from Mr. Henery about the malady.

Mr. Yardley said the receipts and some of the letters seemed to correspond.

Mr. Metcalfe: All I propose now to do is to call a gentleman in whose presence the defendant admitted that the letter addressed from Warburton's Hotel was written by him.

Mr. Edward Charles Ryley said: I reside at Leatherhead. I was in Mr. Fry's office on Monday last when Anderson called. I was speaking to Mr. Fry upon this business, and while there a clerk came in and said a gentleman wished to speak to him. I asked Mr. Fry if he wished me to retire, and he said he did not. Anderson came in and said, "I want to know the reason why Captain Clarke does not settle this bill." Mr. Fry, to the best of my recollection, expressed his surprise at the demand being made after a threatening letter had been sent, upon which defendant said, "I sent the letter by the name of H. Wilson, because I thought if I had sent it in the name of Anderson Captain Clarke would deny me, and not see me." Mr. Fry told him that the amount would not be paid, and he was going to take further proceedings.

Mr. Yardley: This case must be remanded to some convenient day.

At this moment, Baldwin, the summoning officer, entered the court, and said: I have seen Dr. Henery. He is in bed at No. 52, Dorset-street, and he says he is too ill to attend. I have left Osborne (another officer) in charge of him.

Mr. Yardley: Then go and fetch him here upon my warrant at once.

Sergeant White, 16 D, and Sergeant Mulvaney, of the Detective Department, Scotland-yard, to both of whom the Doctor is personally known, also went with Baldwin.

Mr. Yardley: Let this prisoner be removed, and if he wants bail it will be himself in the sum of £500, and two sureties in the sum of £250 each, with proper notice.

He was then removed to the cell.

Some time afterwards Alfred Field Henery was brought in.

Mr. Herring: I appear for Wray (the proper name of the prisoner being Austin Wray). We will say he is Wray.

Mr. Yardley: What does it matter? The only thing is to show that he is the man that the complainant saw.

Anderson was then placed by the side of Henery or Wray, and Captain Clarke's evidence being read over,

Mr. Yardley asked the prosecutor if either of the persons present was the party whom he saw when he went to 52, Dorset-street.

Captain Clarke: That is the one (pointing to Henery). I am certain he said he was Dr. Henery. I want to add that I could not be certain that he was the man until I saw him here, as we were only in the dark room for a minute or two. I may add that I have just been to Dorset-street. When he was taken into custody he had a bundle of papers, and on the top was one which I knew to be in my handwriting.

Sergeant White, 16 D: I went to 52, Dorset-street just now, and found Dr. Henery in bed in a room on the second floor. On seeing him, I knew him as the person trading under the name of Dr. Henery. I said, "You must attend the Court, there is a warrant for your apprehension." He said "I can't, I am too ill." I said, "That is nonsense; I saw you out yesterday." I pulled down the bedclothes, and found he had his drawers on. He got out of bed. Shortly afterwards, and while he was dressing, he said, "Why does he not pay the money? He knows it is a debt, and I have his handwriting to prove it." I said, "Who owes you the money?" and he said "Clarke does." The name had not then been mentioned. I said, "Have you the letter here in which he acknowledges that amount?" He said Mr. Herring had it. He said, "I have a bundle of letters here," and he pulled them from his pocket, and on the outside was a line written, "Mr. Clarke's letters." On the way to the court he opened the bundle, and turned round to the prosecutor and said, "Is your name Clarke?" After receiving an answer he took out a particular letter, which he placed on the top of the bundle, and walked by the side of Mr. Clarke, and said to him, "I have your letters here, and you will be made to pay for this." Then he walked up to me again, and said, "I will not forego this debt, whatever he may do. I am advised by Mr. Herring not to forego it."

Mr. Herring: Was any one present when he said this?

White: Baldwin was present.

Mr. Herring: Is that all that passed?

White: He said it was very foolish of you not to have let him know, and if you had sent word round he would have appeared. He said if the summons had been made in the name of Wray he would have appeared to it. He said he had told you that if the summons was made out in the name of Wray he would have been quite ready. He said that was the only objection he had to appear. I may say that he said you had a complete answer to the case.

Mr. Yardley: I shall now adjourn this case, and require the other defendant (Henery) to find the same bail as Anderson—that is, himself in £500 and two responsible sureties in £250 each for his re-appearance on a future day.

Wednesday, October 26.

The further hearing of the case against William Anderson and Austin Wray, *alias* Henery, for defrauding Captain Clarke, was fixed for this day. When the case was called on, the following certificate was handed to Mr. Yardley:—

"House of Detention, Clerkenwell, E.C., Oct. 26.

"I hereby certify that William Anderson is suffering from a violent attack of delirium tremens, and quite unfit to be moved at present. "W. Smiles, M.D."

The prisoner Henery, *alias* Wray, was then brought in.

Mr. Metcalfe, instructed by Messrs. Fry and Trimmer, solicitors, of 6, Danes-inn, Strand, prosecuted; Mr. Ribton, instructed by Mr. Lewis, jun., of Ely-place, defended Henery; and Mr. Herring, of Stafford Chambers, Stafford-street, Lisson-grove, watched the case for Anderson.

Alexander Thompson, clerk in the London and Westminster Bank, was called to prove that certain cheques were placed to the account of J. O. Wray. Some of these were made payable to order, and were endorsed in the name of Henery. The endorsement was in the handwriting of Wray. Sergeant White, 16 D, was also called to prove that the handwriting on the cheques was Wray's, and that the defendants carried on the business at 52, Dorset-street, Portman-square, under the name of Henery.

Mr. Yardley: You see the client of Mr. Herring is not present, and I think the question of business ought not now to be entered into. It would be as well to reserve that till both are present. Before we go any further, I would ask in what way it is intended that the indictment should be framed. I think the charge ought to be, threatening to extort money by publishing libellous matter.

This form was acquiesced in by both Mr. Metcalfe and Mr. Ribton.

Captain Clarke's evidence was then read over, and Mr. Ribton cross-examined him.

Captain Clarke said: I took the medicine for about four months. I cannot say exactly how many parcels or boxes of medicine I had sent to me, but I think about seven or eight boxes. The first, I think, contained twelve bottles, and always after that there were ten in the box. For the first box I paid ten guineas, and the rest were paid for at the same price. I objected to the price upon one occasion. I had directions given to me as regards my regimen. It was a printed direction enclosed in the first case. I cannot say whether it gave detailed directions about my diet. I went to the defendant's house because I was suffering from indis-

position. He told me about the benefit of cold water bathing, but that was nothing, as I did that every morning. I have seen his book, which recommends bathing every morning. There was something also said as regards exercise, but I am in the habit of taking exercise. When my boxes of medicine ran out I wrote to the defendant for a fresh supply, which was forwarded to me. I continued to take it in the same way till I took further advice. I found myself better at one time. I asked the defendant at one time about gymnastic exercise, but I received no answer.

Mr. Ribton: Did you ever write anything like this:—"I feel very much stronger, but still feel some pain in my shoulder. Please to acknowledge the receipt of this.—10th of October."

Complainant: Is there any order for a fresh box?

Mr. Ribton: Yes, I have one. This is it:—"I beg to enclose a draft for a fresh box. Should any more be necessary, taking into consideration the quantity I have had, will you make some reduction? I feel stronger."

Complainant: That is mine. I had been under his treatment then about two months.

Mr. Ribton: On September 29 last year you wrote again:—"Please forward me some more medicine. I am still improving."

Complainant: No, I don't think I did improve.

Mr. Ribton: Here is another letter, dated in November, which you may perhaps recollect:—"I will feel obliged if you will forward me another box. I think it will be the last, as I feel pretty well and stronger. I have lost the pain in my back. Send me same as before."

Complainant: The medicine seemed to me to differ in taste, but the quantity was the same. I have received letters from Henery from time to time.

The case was again adjourned.

During the hearing of this case the court has been crowded by Medical men.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, October 20, 1864:—

George Jones, 179, Goswell-road, E.C.; George Oliver, Bourne, Lincolnshire; Martindale Cowslade Ward, Markham-square, S.W.; John Dawson, London Hospital; Benjamin Locking, Coltman-street, Hull.

As an Assistant:—

William John Smith, Northampton.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.—Names of Candidates who passed the Major Examination, on October 26, as Pharmaceutical Chemists:—

John Bailey, London; Alfred P. Balkwill, Plymouth; William Davies, London; Richard FitzHugh, Nottingham; Thomas G. Gibbons, Manchester; Marshall Heanley, Peterborough; Evan L. Hickey, London; William Jones, London; Thomas M. Orpe, London; Joseph Sims, Hirwain; Thomas Taylor, Peckham; R. G. Thomas, Merthyr; Henry C. Upjohn, Oxford; Robert F. Young, Gringley-on-Hill.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ALLEN, JOHN W., M.R.C.S. Eng., has been elected Surgeon to the St. John's-wood and Portland-town Provident Dispensary.

BARTLETT, J. J. H., L.R.C.P. Lond., has been appointed Resident Medical Officer to the Kensington Dispensary.

HINDS, J., M.R.C.S. Eng., has been appointed Medical Tutor and Demonstrator at Queen's College, Birmingham.

HODGES, Mr. F. H., has been elected Dispenser and Assistant House-Surgeon to the Cheltenham General Hospital and Dispensary.

MAPLESON, H., M.R.C.S. Eng., has been appointed Medical Officer to the St. James's and St. Anne's General Dispensary, Dean-street, Soho.

NORRIS, RICHARD, M.D. St. And., has been elected Lecturer on Physiology at Queen's College, Birmingham.

WILLIAMS, K. H. BOLD, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Medical Officer and Public Vaccinator for the Creuddyn District of the Conway Union.

DEATHS.

CRAWFORD, DR. WILLIAM, at Stuart-street, Piershill, N.B., on October 15.

DAVIS, EDWARD, M.R.C.S. Eng., at 17, Upper Belgrave-place, Pimlico, S.W., on October 19, aged 61.

MACLEAN, SAMUEL, F.R.C.S.I., at 68, Wimpole-street, Cavendish-square, W., on October 18, aged 46.

MOORE, JOHN, M.D. Glasg., at Newtonshaw, Clackmannanshire, on October 7.

MORGAN, MOSES, L.R.C.P. Edin., at 12, Charlotte-street, Bedford-square, W.C., on October 19, aged 64.

ROBERTS, FRANCIS O., M.R.C.S. Eng., at the Cape of Good Hope, on August 11.

ROBERTSON, ARCHIBALD, M.D. Edin., at the West Mall, Clifton, Bristol, on October 19, aged 74, late Senior Physician, General Infirmary, Northampton.

THOMAS, MORGAN, Inspector-General of Hospitals, at 2, Queen's-terrace, Woolwich-common, on October 22, aged 81.

YELLOW FEVER AT BERMUDA.—The *Montreal Gazette* publishes the following telegram from Halifax, where the news had just arrived from Bermuda:—"Halifax, Oct. 5.—Yellow fever abating at Bermuda, and Medical officers all recovering. Those that can be spared are to return in a few days to Canada. All the effective troops stationed in the islands have been removed to Halifax, a guard and the convalescents remaining."

MEDICAL SOCIETY OF KING'S COLLEGE.—A very large meeting of this Society was held on October 20 for the purpose of hearing a paper by Mr. Richmond, the House Surgeon of King's College Hospital, on the "Treatment of Acute Orchitis by Puncturing the Testicle as lately adopted by Mr. Henry Smith." Mr. Richmond commenced his paper by stating that the treatment in question had been very extensively tried at the Hospital, and with the most satisfactory results; but it had been as severely criticised and condemned as an heroic proceeding, especially by those who had not seen it tried. His object, therefore, was to bring the matter fairly before them, and ascertain what the opinion of the majority of the Society was in regard to it. Mr. Richmond, before proceeding to describe the operation, gave a sketch of the anatomy of the testis and of the pathology of orchitis. He then considered the question as to the cause of the severe pain experienced in this disease, and stated that the generally-received opinion was, that the pain was produced by the tension exerted by the tunica albuginea on the inflamed testis; but he was of opinion that another cause, not generally recognised, existed in the effusion in the tunica vaginalis. Mr. Smith, believing in the first, makes the incision into the substance of the testis: others, and amongst them he (Mr. Richmond), contented themselves with merely making a puncture into the tunica vaginalis. As far as he could see, both plans of treatment were equally successful. The immediate relief to the pain was most striking, and the patient scarcely required any other treatment. It might be supposed that this treatment of puncturing the testicle would be followed by bad results—as hernia of the testis, severe hæmorrhage; but none such had occurred. Mr. Richmond concluded his paper by strongly recommending the plans of treatment spoken of; at the same time, he was of opinion that in many cases simply puncturing the tunica vaginalis would be followed by as good results as the more heroic plan of puncturing the testicle itself.

DINNER AND PRESENTATION AT GATEHOUSE.—A farewell entertainment was given in the Murray Arms Inn to Dr. Richardson, who, during the last ten years, as principal Physician in Gatehouse, has gained a reputation for skill and success far beyond the bounds of the locality. His friends and well-wishers, desirous of testifying their appreciation of his eminent services, invited him to dinner on Tuesday, the 11th inst., Provost M'Kean in the chair, who, after dinner called upon the Rev. John Robertson for the toast of the evening. The rev. gentleman, who, as Dr. Richardson's pastor and intimate friend, had watched his career since his settlement in Gatehouse, said he had met him in private and in the society of all classes; as a friend at the festive board, at the bedside of the dying, and in the squalid abodes of poverty, and he could not speak in too high terms of the nobility of sentiment, the high moral sense, the kindly feeling, and the most distinguished Professional ability which had characterised his whole career; he concluded an eloquent eulogium by proposing health and prosperity to Dr. Richardson, which was honoured with much enthusiasm. The Provost then, in the name of the subscribers, presented the Doctor with a magnificent tea and coffee service (manufactured by Muirhead and Son, Glasgow, at a cost of £64). Dr. Richardson made a suitable reply. H. D. Glover, Esq., of the Bank of Scotland; W. Cairns, Esq., of the Union Bank; R. Gibson, Esq; Dr. Dickson, &c., gave the other toasts, all contributing their meed of praise to the worthy guest.

THE SURGICAL AID SOCIETY.—The second annual meeting of the governors of this really excellent charity was lately held at Radley's Hotel, Bridge-street, Blackfriars. Mr. W. Tresidder, the secretary, read the Report, which called attention to the comprehensive and national character of the Society, which is not limited to any particular locality; and gave a list of the cases relieved during the year, showing that Surgical appliances had been granted in 109 cases of hernia, 92 cases of varus, 14 of prolapsus uteri, 1 disease of shoulder, 2 diseases of spine, 7 diseases of leg, 2 weak knees, 1 respiratory organs, and 4 other diseases, thus affording relief to 98 men, 111 women, and 30 children (being 102 cases more than in the previous year), including persons residing in Dorset, Essex, Gloucestershire, Hants, Kent, Lancashire, Middlesex, Monmouthshire, Norfolk, Somerset, Surrey, and other parts of England, all of whom had expressed the greatest gratitude for the assistance given, and several of whom had testified their thankfulness by afterwards contributing towards the funds. The treasurer's account showed the total receipts for the year were £306 15s., and that there was a balance in hand of £56 19s. 5d. It was then moved and carried that donors of five guineas and upwards, and annual subscribers of half-a-guinea and upwards, should be governors, instead of double that amount being required, as heretofore.

THE VALUE OF MAIZE.—Of all the cereals, says Commander Maury in his interesting little work on "Physical Geography," maize or Indian corn has been the most potent in influencing and facilitating the colonisation and settlement of the New World by the Anglo-Saxon race. Without Indian corn it is difficult to conceive how the continent of North America could have been reclaimed from the wild beast and the savage. Persons accustomed to it, especially those of the labouring classes, prefer the bread of maize to that of any other cereal; it is palatable, wholesome, and nutritious. It may be served in a great variety of shapes, and is eatable as soon as the ear reaches the milky state, which it does in six or eight weeks after planting. Whole divisions of the armies of the Confederate States of America sometimes go on forced marches with nothing in their haversacs but a little *parched corn*—that is, the grains of the ripe ear roasted as the cook roasts the coffee berry. Some varieties of this corn are fit for the table in six weeks after the seed has been put into the ground. This grain has the marvellous power when ripe of housing itself—a power which considering that the pioneers of the wilderness had no barns, made it truly invaluable. It is covered with an outer coating of shrub or thatch, that enables the ear to keep its grains dry in the wettest weather; its stalk is stout and strong, bearing the ear from month to month, and until such time—even though it be the succeeding spring time—as it may suit the convenience of the husbandman to pluck it. And then for making into bread, it requires no leaven; a cake may be made of it and baked in the time that it takes to cook a potato.

A MEDICAL CANDIDATE FOR A SEAT IN PARLIAMENT.—Mr. Mitchell Henry, lately one of the Surgeons of the Middlesex Hospital, has issued an address to the electors of Woodstock. Without any reference to Mr. Henry's political opinions, which his address shows are liberal, we frankly state that it will be a source of great gratification to the Medical Profession to have a representative in Parliament of Mr. Henry's former Professional standing and eminence. We know that Mr. Henry has relinquished all Professional pursuits, but we also know that he still takes an interest in all matters affecting the interests of his old calling, and we have every reason to believe that for its advancement his influence would be exerted to the utmost. Many of our readers will probably be curious to know Mr. Henry's opinions on some of the leading political topics of the day, we therefore print the following extract from his address to the Woodstock electors:—"By hereditary descent, by education, and by natural habit of mind, I am a consistent liberal and a friend to rational progress. My father, the late Mr. Alexander Henry, member for South Lancashire, was well known and tried, when liberal principles were not so popular as they are now, and when they were not disguised under the name of moderate conservatism. For myself, I am independent of all party ties, have leisure to serve you in Parliament, and an ardent desire to advance the good cause. I am in favour of the widest extension of civil and religious liberty; of the abolition of all oaths that fetter men's consciences; and of economy in the State, which alone can be obtained by abstaining from irritating and needless interference in the affairs of foreign countries, whereby England is always kept, as it were, on the brink of war. I am also in favour of an extension of the franchise so as to widen the basis of the Constitution, and thus to act in political life and in the Government of the country on the precept of doing to others that which we would they should do unto us. You yourselves have answered the question as to church rates. I am a sincere member of the Church of England, but confess myself unable to see how the cause of Christianity is to be advanced by compelling men to support an establishment from which they conscientiously dissent. . . . I have not seen any satisfactory proposal for the compromise of the church rate question, and I believe that the total abolition of such rates will do more to strengthen the interest of the Church, by removing from her the odium of persecution, than any other measure whatsoever. If Churchmen really value their Church, they will gladly support her, more efficiently than she has ever yet been supported, when once the burden has fallen where it ought to rest, upon the shoulders of the members of our own communion. Thus, gentlemen, I have laid before you openly and fairly my opinions on some of the chief topics of the day, and I am prepared to answer all your inquiries on the spot. The issue rests with you. The stake is a high one, and worthy of your utmost exertions, for not only one, but the whole people of England are interested in the question whether or not in the case of Woodstock the close borough system and the dictation of ages past shall now receive an effectual blow. It matters comparatively little who becomes your representative, provided the choice is your own, and in this great issue all minor differences should be merged. You may easily find a more able member than I can hope to become, but you will not find one who will serve you with more diligence and singleness of purpose.—I have the honour to be, Gentlemen, your faithful servant, Mitchell Henry. Stratheden House, Hyde-park, London, October 24, 1864."

MEDICAL PROVIDENT FUND.—The first meeting of the Board of Directors of the Medical Provident Fund was held at the Freemasons' Tavern on Thursday, October 20. Present: Dr. Richardson, in the chair; Dr. Armstrong (Gravesend), Dr. J. M. Bryan (Northampton), R. B. Carter, Esq. (Stroud), Dr. Chevallier (Ipswich), John Clay, Esq. (Birmingham), Dr. Collet (Worthing), Edward Daniell, Esq. (Newport Pagnell), Dr. L. E. Desmond (Liverpool), Dr. Falconer (Bath), Dr. Fayrer (Henley-in-Arden), T. Taylor Griffith, Esq. (Wrexham), Dr. Latham (Cambridge), Charles F. J. Lord, Esq. (Hampstead), Thomas Paget, Esq. (Leicester), T. Heckstall Smith, Esq. (St. Mary Cray), Dr. A. P. Stewart (London), Henry Veasey, Esq. (Woburn), Dr. E. Waters (Chester). The Chairman reported that the contributions to the Guarantee Fund amounted to £344 13s., of which £133 18s. had been paid. The money had been placed at interest in the Union Bank. He wished to take the opinion of the meeting as to the application of the Fund. After some discussion it was moved by Mr. Smith, seconded by Mr. Paget, and carried,—"That the preliminary expenses be at present drawn from the Guarantee Fund, to be replaced from the General Fund as the Board of Directors may hereafter decide." Dr. Westall was appointed Honorary Treasurer *pro tempore*, and Dr. Henry Secretary for the ensuing three months. Mr. Paget moved, and Dr. Stewart seconded—"That the following gentlemen constitute an Executive Committee, to draw up rules and regulations for the government of the Provident Fund, and to submit the same for approval and adoption by the Board of Directors:—The Chairman, Dr. Westall, T. H. Smith, Esq., Dr. Armstrong, C. F. J. Lord, Esq., Dr. Falconer, J. Clay, Esq., Dr. Fayrer. The Chairman to convene the members of the Committee, and to have a casting vote. Three to be a quorum." The resolution was carried. It was proposed by Mr. Clay, seconded by Mr. Griffith, and carried—"That the Executive Committee be instructed to print the rules and regulations when determined on, and to circulate the same among the Board of Directors a month previously to their next meeting." The Chairman said that, before the Executive Committee commenced their work, there were certain points on which they ought to be instructed by the whole Board now assembled. He would limit such instructions simply to questions that were of the largest Professional interest; and respecting which he had received most inquiries. He would first take the opinion of the meeting on the point, whether the benefits of the fund should cease at 60 years of age. After a long discussion, the following resolution was proposed by Mr. Paget, seconded by Mr. Fayrer, and carried unanimously—"That the directors, sharing in the general desire to extend the benefits of the

Fund beyond 60 years of age, specially instruct the Executive Committee to examine into this point, with a view to such extension; and to embody their decision in their report." The Chairman then asked for instruction on the point whether the Fund should be applied to cases of disability from accident as well as from disease. Ultimately, the following resolution, proposed by Mr. Daniell, and seconded by Dr. Chevallier, was carried unanimously—"That the Committee be instructed to include accidents in their rules as a part of the benefit scheme." The next subject discussed was the question whether or not the Fund should be confined to members of the British Medical Association, or open to the Profession at large. Mr. Carter moved—"That the directors instruct the Committee to make rules for the admission of members of the Profession generally." Mr. Carter, in moving the resolution, urged that it would be a great injustice to the Profession generally to limit the benefits of the fund to members of the Association. There were many Professional men of small income, who would be most anxious to join the fund, but who could not afford to join the Association also; and some might subscribe to both for a time, and afterwards leave the Association. But it would not be just to ask them to forfeit what they had paid to the fund because they chose no longer to belong to the Association. He further stated that, if the fund had not been started by the Association, it would have been commenced by himself and several other gentlemen with whom he had been in communication; and that although, finding the Association was about to take up the same question, and seeing that it had special facilities for carrying out the scheme, he had deferred to it, he still considered that the plan should embrace in its organisation the Profession at large. Such extension would, he believed, increase the number of subscribers to the fund, and do good rather than harm to the Association. The motion was supported by Mr. Daniell and Mr. Paget, and after considerable discussion the resolution for extension was put and carried unanimously. The next subject discussed had reference to instruction to the Executive Committee in respect to the question whether relief should be granted to members suffering from partial disability from disease or accident. Dr. Latham proposed, Mr. Clay seconded, and it was carried,—"That there be no system of partial relief introduced into the regulations of the Provident Fund." It was next discussed, whether by payment of multiple premiums, members should be allowed to insure so as to secure, during sickness, proportionately increased benefits. Dr. Waters proposed, and Dr. Fayrer seconded,—"That, for the first two years from the commencement of the Society, no member be allowed to subscribe more than will entitle him to receive £2 a week when incapacitated by sickness or accident." After some other votes on matters of minor interest, and the usual vote of thanks, the proceedings closed.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

MEDICAL HISTORY OF ENGLAND.—The Medical History of Lincoln will be continued in our next number.

Cupar Fife.—We agree with our correspondent. We are overwhelmed with original matter—papers expressly sent for our journal. Every week is a struggle as to what shall come in; but we will do our best to fill up the *hiatus* our correspondent points out.

Oxford.—Most Medical men would give a death certificate, partly as an act of charity, using the word in its general sense, and partly as a contribution to the public stock of statistical knowledge; partly, also, as a protection to the public, because in towns and crowded neighbourhoods deaths might be registered when nobody had died, and a death might be registered from natural causes which was really due to violence or poison. A Surgeon, therefore, ought to have a very good reason for refusing a certificate.

Dr. H. S.—The Bills of Mortality were commenced by the Parish Clerks' Company in 1592. They were superseded by the "Tables of Mortality in the Metropolis," issued weekly from the Registrar-General's Office, Somerset House, since July 1, 1837.

Old Mortality.—The remains of Sydenham are interred in the church of St. James's, Piccadilly, with marble tablet erected by the Royal College of Physicians. Dr. John Armstrong is buried in a vault under the communion-table of St. Paul's, Covent-garden.

Erratum.—In our leading article last week, the words *October term* appear by mistake instead of *Acts term*.

Natural v. Supernatural Conjuration.—We thank Professor Anderson for his civility in sending us an invitation to witness his late exhibition of dexterity in untying knots, and doing the various tricks which have made the Brothers Davenport famous. Urgent private affairs prevented our attendance, but we are glad to record the fact that persons who were present were highly gratified by the performance. Moreover, when we have to prescribe for dyspeptic and hypochondriac patients, we always recommend them to pass their evenings in amusements, such as music, the drama, or well-devised feats of dexterity. Such diversions smooth out the wrinkles of the brain, and tickle the ducts of the liver, so that, in our opinion, an evening with Professor Anderson ought to be on the list of a supplementary Materia Medica amongst nervine stimulants and cholagogues. We can assure the Professor that we have not the slightest idea that he is indebted to either ghost or devil for the dexterity which he has acquired by industrious prestidigitation. Our contemporary, the *Lancet*, lately devoted a wearisome page to the performances of the Messrs. Davenport, and seemed not at all clear but that there was something more than human in them. The late revered King George the Third was equally puzzled to conceive how the apple got into the middle of an apple dumpling. Certainly either the Davenports are something more than conjurors, or the *Lancet* something less.

MR. TALLEY AND THE MEDICAL COUNCIL.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your impression of the 15th inst., while commenting upon the recent prosecutions instituted by Mr. Talley, you seemed to put implicit faith in his assertion that he was the organ of the Medical Council, "or was in correspondence with them," etc. I now beg to hand you a letter received from that body in reply to a communication to them by my solicitors, Messrs. Lewis and Lewis, who appeared on my behalf.

I am, &c. WM. ROGERS, M.R.C.S.E.

18, New Burlington-street, Regent-street, W., October 24.

(Copy.)

"General Council of Medical Education and Registration of the United Kingdom, 32, Soho-square, W., October 8, 1864.

"Gentlemen,—With reference to your letter of yesterday, addressed to 'The Medical Council,' I beg to inform you that the Council is not at present sitting.

"I may venture, however, to reply to the inquiries in that letter that the proceedings of Mr. Wm. Talley, in the case to which you have alluded, were not taken at the instance, or with the knowledge of the Medical Council; and that the Council has not given any authority to Mr. Talley, whose name has never been brought before it.

"I am, Gentlemen, your obedient servant,

"(Signed) "FRAS. HAWKINS, Registrar.

"Messrs. Lewis and Lewis."

*** We hope that the Medical Profession will carefully distinguish between Mr. Rogers, the Dentist, of New Burlington-street, who was made the victim of Mr. Talley's mistaken zeal, and the unqualified Practitioners against whom summonses were procured. Mr. Rogers is a Member of the Royal College of Surgeons, and had only neglected to register because he practises as a Dentist, and not as a Surgeon. He has now, however, placed his name on the register. We need scarcely add that any proceedings against him could only have been taken under an egregious error, and were neither sanctioned by law nor justice.

THE SUGAR CONTROVERSY IN CORPULENCY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

"Scribere jussit amor."

SIR,—How comes it that the Turks, who eschew the use of sugar in their coffee, etc., are the most corpulent race? The French assert that "*Le sucre c'est le véritable ami des nerfs.*" The Chinese, who, like the French, use sugar in very large quantities, term it "long life." And yet both the Chinese and the French are a thin race, compared to Englishmen. Sugar promotes the circulation of the blood, and prevents any tendency to putrefaction. A Physician, a friend of mine, who lived almost entirely on "syrup of roses," was entirely cured of his consumption. In the form of jams, syrups, etc., if taken the last thing at night, it is a powerful remedy in diseases of the gravel and stone. Its "disuse" impoverishes the blood, and induces a disease akin to the prurigo senilis.

I believe, on trial, the advocates of the Banting system will derive greater benefit in reducing corpulency by making use of a "decoction of sweet fennel seeds" or "lime water" daily.

I am, &c.,

London, October 13. JAMES BRUCE (late 33rd Regiment).

DIABETES MELLITUS HEREDITARY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your impression of last week is mentioned an instance of the hereditary occurrence of diabetes mellitus, in which a woman and her son were afflicted with that disease, the woman's father and his mother and two of his sisters having died of that complaint. A somewhat similar instance came to my notice last year in a man 39 years of age, who was admitted into the Norfolk and Norwich Hospital suffering from that disorder, and whose brother, sister, and mother had died of it; and a child of his, two years of age, was at that time the subject of diabetes insipidus; this circumstance is not uncommon, for it is now known that the children of diabetic parents are usually affected with diabetes insipidus; but I believe it to be very uncommon for diabetes mellitus to be so intensely hereditary as in the two cases just alluded to.

I am, &c. CHAS. WILLIAMS.

Norfolk and Norwich Hospital, Oct. 24.

THE GRIFFIN TESTIMONIAL FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following subscriptions have been further received on behalf of the above fund:—G. M. Phillips, Esq., Hitchin, 10s. 6d.; G. T. Smeatham, Esq., Great Missenden, 5s.; D. Rice, Esq., Southam, 5s.; Wm. Allison, Esq., East Retford, 10s.; C. P. Mann, Esq., Cosford, 5s. Amount previously announced, £89 9s. 6d.; received at the *Lancet* office, £5 13s.

I am, &c.

ROBERT FOWLER, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, October 26.

The St. Andrews Degree.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I find that your correspondent Mr. David P. Morris has at last retired into his quondam obscurity, and well may we St. Andrews' men rejoice that he thinks he has dragged their Doctor's gown sufficiently in the mire. To be sure his attack upon them is as impotent as it was unprovoked, and I should have been content to treat it with the silence it deserves if there were not other motives for crossing the Forth which have not yet been alluded to.

Before referring to them, however, I would remind Mr. Morris that, in spite of his condescension, we possessed the qualifications in which he rejoices before seeking the status given us at St. Andrews; and starting from this equality with him, there is no doubt we now occupy, socially at least, a position higher than we did before.

It is, moreover, too rich for Mr. Morris to sit in judgment on such men as Alfred S. Taylor and T. H. Tanner, and urge them "to achieve a higher style of diagnosis and apply themselves to investigate the vast *terra incognita* of disease." Has the naked M.R.C.S. caused Mr. Morris so far to outstrip those gentlemen that he should beckon them on to follow in his steps? On the contrary, it would be well for him to copy the bright example set him by these and other graduates of St. Andrews.

But if Mr. Morris would exercise a little more charity towards his Medical brethren he might find other reasons than "bumptiousness" to account for their journey north. I can only speak for myself, but I doubt not many gentlemen were actuated by a feeling like my own. The first idea with me was that it would be well to possess an university diploma, lest at some future time I should wish to practise as a Physician. I may some day be in easy circumstances, and then what would be more natural? We all know that a member of a College of Physicians has no right to sign himself M.D., and to secure this privilege would be necessary if I should ever be able to enjoy the *otium cum dignitate* of consulting practice. Surely there is nothing wrong so far. Well, with this aspiration, I look around and find that, with one exception, the door of every university is closed against a man who has not resided at some one or other of them. Am I, therefore, to be disparaged because I have taken the only degree open to me? The M.D. of London was what I aspired to, but the unyielding secretary soon stifled my hopes by saying that the matriculating examination must be passed before attending the lectures; and who can leave a practice to spend three more sessions in London?

Such a law as this sets at defiance the very charter of London University, which was to facilitate (or make easy, to use Mr. Morris's synonym) the obtaining of degrees. For what can it matter if a man in practice should not have matriculated early in his career, so long as he is able to pass a proper examination in classics and mathematics before being admitted to the M.D.?

To my mind the object of examination is not to ask a candidate when or where he obtaind his knowledge so much as to discover by thorough sifting if he be qualified to exercise his calling. Let them make the trial as searching as they please, but with the source of the knowledge necessary to pass through it the examiners have nothing to do.

I know that I am as it were writing to the wind, for the temper of our ruling bodies is sufficiently shown by their treatment of St. Andrews University, which we all know was burked by the Edinburgh adepts, because of its liberality in not demanding residence.

Before being submitted to a treatment traditional in the latter city, its rules for admission to degrees would have served well as a model for all other Medical corporations. Moreover, I trust the time will come when there shall be but one Examining Board north, and another south of the Tweed, for until then we shall see again and again renewed the small bickerings of persons who think with Mr. Morris.

I am, &c.

October 19. Edvardus, M.D. St. Andrews.

COMMUNICATIONS have been received from—

Harveian Society of London; Dr. J. Mackie; Mr. Samuel C. Noble; Mr. Charles Williams; Dr. Henry; Mr. H. Smith; Dr. R. Fowler; Mr. M. Henry; Dr. Essex Bowen; Dr. John H. Blount; Edvardus, M.D. St. Andrews; Mr. Edward E. Earle; Professor Anderson; Mr. William Sedgwick; Anthropological Society of London; Mr. H. R. Salmon; Apothecaries' Hall; Dr. W. H. O. Sankey; Dr. M. Claudius; Western Medical and Surgical Society of London; Dr. John Speers; Mr. William Green; Dr. W. T. Gairdner; Obstetrical Society of London; Dr. Henry Willington; Pharmaceutical Society of Great Britain; Dr. Devenish; Dr. H. K. Bold Williams.

BOOKS RECEIVED.

Medical Report of the Royal Lunatic Asylum of Aberdeen. 1864.

*** We heartily endorse the complaint implied in the following extract from Dr. Jameson's Report:—"Probably the chief drawback to the profitable results of this system of visitation [that of the Commissioners in Lunacy] lies in the unfortunate association of it with a mass of registers, returns, reports, and useless statistics, hostile to the advance of the science of mental therapeutics, as favouring the substitution of mere clerkship and routine in place of more enlightened care and Medical treatment, especially, it is to be feared, in the larger District Pauper Asylums."

The Fourth and Fifth Annual Reports of the Convalescent Society for Newcastle-upon-Tyne and the Counties of Northumberland and Durham for the year ending March 31, 1863-64.

*** This is one of those excellent societies whose work is carried on unobtrusively. Its first object is the supply of food, wine, and other necessaries to discharged patients who require such assistance to complete their restoration to health; its second object is to provide a temporary residence at the sea-side for such as it is likely to benefit. Verily its promoters have their reward.

Edinburgh Veterinary Review. October, 1864. Edinburgh: Maclachlan and Stewart.

*** In this number Mr. Armitage relates two gross instances which have come under his notice of the sale of diseased beasts to butchers for the London market: one was of an ox which had died from uræmia consequent upon occlusion of the urethra from injury; the other of a bull who for a cancerous affection "had been absolutely poisoned by a quack by the topical application of an ointment of arsenic and corrosive sublimate."

Weekly Returns of Births and Deaths in the City of London, from January to July, 1864.

*** Constructed on the plan of the Returns of Births and Deaths in London.

Bulletin de l'Académie Royale de Médicine de Belgique. Nos. 3 and 4. 1864. Bruxelles: H. Manceaux.

*** Contains a paper by M. Burggraeve upon the successful treatment of a case of supposed aneurism of the innominate artery by the internal administration of perchloride of iron and chloride of sodium.

Thirty-fourth Annual Report of the Belfast District Hospital for the Insane Poor. 1864.

Handbook of Calisthenics and Gymnastics. A complete Drill Book for Schools, Families, and Gymnasiums, with illustrations. By J. Madison Watson. New York: Schermerhorn, Bancroft, and Co. 1864.

Annual Report of the Committee of Visitors of the Surrey Lu natic Asylum 1864.

Fifty-fourth Annual Report of the Directors of the Dundee Royal Asylum for Lunatics. 1864.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 22, 1864.

BIRTHS.

Births of Boys, 997; Girls, 987; Total, 1984.
Average of 10 corresponding weeks, 1854-63, 1723·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	669	666	1335
Average of the ten years 1854-63	541·4	538·6	1080·0
Average corrected to increased population	..	..	1188
Deaths of people above 90	..	..	4

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa
West	463,388	..	9	14	2	4	13	5
North	618,210	2	6	20	3	4	13	5
Central	378,058	1	4	15	1	4	8	11
East	571,158	..	11	20	1	5	14	8
South	773,175	2	8	31	2	10	31	12
Total	2,803,989	5	38	100	9	27	79	41

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·315 in.
Mean temperature	53·1
Highest point of thermometer	67·2
Lowest point of thermometer	42·6
Mean dew-point temperature	45·9
General direction of wind	S.W., S.S.E.
Whole amount of rain in the week	0·58 in.

APPOINTMENTS FOR THE WEEK.

October 29. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

31. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital 1½ p.m.

November 1. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.
Anthropological Society of London, 8 p.m. C. Carter Blake, F.G.S., "On the Anthropological Papers Read at Bath." Captain R. F. Burton, V.P.A.S.L., "On a Visit to Dahomey."
Pathological Society, 8 p.m. Meeting.

2. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.
Hunterian Society, 8 p.m. Mr. Curling, "On a Case of Cancer of the Rectum Relieved by making an Artificial Anus in the Loin."
Obstetrical Society of London, 8 p.m. Dr. Eastlake, "On the Management of the Third Stage of Labour." Dr. Wade (Birmingham), "On a Case (Puerperal) of Embolism of the Pulmonary Artery."

3. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.
Harveian Society of London, 8 p.m. Dr. B. Squire, "On the Diagnosis between Syphilitic and Non-Syphilitic Diseases of the Skin."

4. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.
Western Medical and Surgical Society, 8 p.m. Practical Evening, for the Narration of Cases and Exhibition of Specimens. Mr Holmes, "The Result of Three Successful Cases of Excision of the Hip-joint," with Exhibition of Patients

ORIGINAL LECTURES.

COURSE OF

LECTURES ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D., F.R.C.P.,
Professor in University College, and Assistant-Physician to University College Hospital.

Lecture VII.

PHOSPHORIC ACID, AND PHOSPHATES IN RICKETS, DISEASES OF THE BRAIN, SPINAL CORD, BLADDER, AND OTHER AFFECTIONS; PHOSPHATIC GRAVEL AND CALCULI, THEIR DIAGNOSIS AND TREATMENT.

(Continued from page 459.)

Phosphatic Gravel and Calculi.

Earthy phosphates are frequently deposited from urine before its emission from the bladder. The deposition may take place either in the kidney, and give rise to a renal calculus; or, what is still more common but fortunately less dangerous, it may take place in the bladder, and produce an ordinary stone.

The pathology of renal and vesicle phosphatic calculi is nevertheless very different. Thus, renal phosphatic calculi arise in one of two ways,—either from the urine containing an excess of phosphates, in consequence of a vice in the tissues which contain them; or from the urine being alkaline at the moment of its secretion in consequence of being secreted from abnormally alkaline blood.

In the case of vesicle calculi, on the other hand, in addition to the causes just mentioned, there exists still another fruitful source of origin in the numerous diseased conditions of the bladder itself. Thus, for example, whatever induces retention of the urine and favours the decomposition of its urea, as occurs when a patient is labouring under paralysis of the bladder, may give rise to a vesicle phosphatic stone.

Diseases of the digestive organs, which are among the most common causes of the other kinds of gravel and stone, also exert a particular influence over the formation of phosphatic calculi. And the disease affecting these organs has not unfrequently so masked the symptoms produced by the stone that its presence has remained undetected until revealed by the post-mortem examination.

This specimen of renal calculus furnishes a most striking illustration of the correctness of this remark. It was sent to me by Dr. Roome, Physician to the Dartmoor Prison, with the following history:—The patient, a convict, aged 60, had lived a very dissipated life prior to his conviction, and during the two years succeeding his conviction he suffered from gastric derangement, without presenting any symptoms which would have led to the suspicion of renal disease. This is the more surprising, seeing that no less than five ounces and a half of phosphatic calculi were removed after death from the right kidney (the left contained none), and one of the calculi alone weighed three ounces and three-quarters. The man died from cancer of the pylorus, which induced a stricture of the orifice hardly admitting of the passage of a crow quill. If any renal symptoms existed in this case they were entirely masked by the more serious disease of the stomach. The calculi consisted of triple phosphates.

As regards the first step in the formation of calculi, it may be laid down as a general law that *their formation in any particular part of the urinary system is due to some special local cause.* If the calculus begins in a urine tube, it is on account of the tube getting blocked up with mucus, epithelium, or a little blood. Or it may also arise from the tube being temporarily constricted in some parts of its course in consequence of inflammatory action. Once, however, that the deposition of urinary sediment has begun, the original cause is soon lost sight of, and the calculus goes on forming round its nucleus quite independent of the local condition which first called it into existence.

When a phosphatic calculus, instead of beginning in a urine tube, originates in the pelvis of one of the kidneys, there may be no absolute obstruction to the flow of the urine, but merely a slight interruption, as from a fragment of mucus adhering to the side of the lining membrane of the pelvis. For when a predisposition to calculus formation exists it requires but a very trifling cause to call it into operation. Almost anything may form a nest round which the stone will gradually become deposited.

This is no fanciful description of the formation of renal calculi, as you may see by taking the trouble to examine the series of examples now on the table, each of which bears evidence of the truth of the statement. In fact, the assertion might be proved without any specimens at all, from the simple circumstance of the frequency with which we meet with renal calculi limited to one kidney in patients predisposed to stone. That fact of itself clearly shows that the deposition of the stone in any one particular spot must be entirely due to some local cause. Thus, for example, we have here a kidney, which contains no less than fifty-nine uric acid calculi, and yet neither in the bladder nor the opposite kidney of this gentleman was a single stone to be found. The deposition of all these calculi in one kidney must therefore have been entirely due to some local cause. At first sight, the cause does not appear very evident, nor is it apparently easy to account for the fact that although at least fifty of these calculi are not bigger than barleycorns, none of them have found their way into the ureter, and from thence onwards into the bladder. The reason of the last fact is, however, apparent when the specimen is carefully examined, and as it will be easier to explain the former proposition after we have discussed the latter fact, we shall consider the last first. The largest stone, which, from its position and size, is evidently the one which was first deposited, is of a very peculiar conical shape, and the apex of the cone projects into the orifice of the ureter, and forms a movable plug, which is, in fact, a self-acting valve. No sooner does the pelvis of the kidney become filled with fluid, than its distended walls cease to embrace the stone, and consequently the fluid flows past the valve until the pelvic walls again come into contact with it. The separation of the walls from the valve, although being sufficient to allow liquid to pass, does not appear to be sufficient to admit of the escape of even the smallest of the stones. Now exactly the same thing as we have done artificially with water must have been daily done with the urine.

Gradually as the urine was secreted, it would distend the pelvis of the kidney and separate its walls from the valve-shaped calculus; but no sooner would this occur than the accumulated urine would make its escape. So that every now and again there would be little accumulations of urine, and during the period of these little accumulations not only would the smaller calculi form, but the larger one, the plug, would gradually increase in size. In this case, it is perfectly evident from the immense number of the calculi that the predisposition to stone existed; and from their being all limited to one kidney it is just as evident that it was some local cause which induced them to select the left instead of the right kidney. In Dr. Roome's case, again, it was precisely the reverse: all the calculi were found in the right kidney; not one existed in the left; which is additional evidence in favour of our views.

In my own case, moreover, it is further shown, by the absence of all calculi both from the right kidney and from the bladder, that, although the predisposition to stone existed, yet without some local cause no stone would have been deposited in the urinary passages of the patient—a most suggestive fact, as showing the importance of paying attention to the proper performance of the renal function. Who can tell what a trifle at first induced the deposition of the uric acid nucleus, which ultimately became the plug and caused the formation of all the rest?

The foregoing general principles are not alone applicable to the pathology of phosphatic, but to all varieties of renal calculi—oxalic, uric, xanthic, etc.

As regards the first step in the formation of vesicle calculi, it may, with equal justice, be said that whenever the predisposition to stone exists, it requires but a very trivial cause to bring it into operation. For, as with renal calculi, almost anything may act the part of a nucleus round which the stone will become deposited. An insignificant particle of mucus, a microscopic portion of albumen, or an epithelial cell, is all that is requisite for the purpose. In the vast majority of vesicle calculi, indeed, it is impossible to detect the primary point round which the urinary salts became adherent; but every now and then we come upon calculi with well marked nuclei, some of which are not only quite foreign to the urinary

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—Ed. *Med. Times and Gaz.*

passages, but even foreign to the body itself. Thus, for example, this large ammoniaco-magnesian stone (No. 3425 of Liston's collection in the museum of University College), which was extracted from the bladder of a man aged 60, has a piece of beeswax for its centre; while three other small calculi (No. 3478), removed from the bladder of a man aged 70, have barleycorns as their nuclei. It is perfectly clear these substances were not generated spontaneously in the urinary passages, and it is highly probable also that they did not find their way there quite accidentally; but with the mode of entrance we have at present nothing to do; so we may turn our attention to this other vesicle calculus (No. 3515 of the same collection), which was removed from a woman's bladder. The nucleus of this stone consists of a piece of bone —a fœtal tibia, in fact—which found its way by ulceration into the bladder from the abdomen, the case having been one of extra uterine fœtation. Any solid substance, indeed, may prove the starting-point of a vesicle stone, just as a thread, piece of string, or anything else, may form the nucleus of a crystal of sugar-candy.

In connection with the origin of calculi, there is another point particularly deserving of attention—namely, that local causes are the most potent in the production of stone, and that even where the predisposition to it exists, without some local cause no stone is likely to form.

Vesical phosphatic calculi are frequently induced by inflammation of the bladder. The inflammation gives rise to a copious secretion of mucus, which, acting as a ferment, causes the urea to decompose, while the urine still sojourns in the bladder. The decomposition of the urea leads to the evolution of ammonia, which, in its turn, deposits the earthy phosphates, and the gradual formation of a stone is the result.

Many phosphatic calculi have a uric acid nucleus, while some few have oxalate of lime for a centre. The deposition of phosphates, and consequent increase of the stone in such cases, is due to one of the four following causes :—

1st. Although the patient has recovered, either by time or by treatment, from the uric or oxalic acid diathesis,(b) the stone that has already formed still remains in the bladder, and immediately, or at some future date, causes such an amount of irritation as to induce an excessive secretion of mucus; which mucus, acting as a ferment, brings about the decomposition of the urea, and consequent formation of the alkaline carbonate of ammonia, which, in its turn, induces, as in the preceding examples, a deposition of the earthy phosphates normally present in the urine.

In this case the deposition of the phosphatic calculus is not due to a vice in the general system, but the product of an entirely local cause.

2nd. A patient with a small uric or oxalic acid stone in the bladder, which induces no irritation whatever, is on some occasion or other seized with retention of urine. It may be from stricture, enlarged prostate, paralysis of the bladder, or any other cause liable to induce it. In consequence of this retention the urine becomes decomposed, and a deposition of phosphates takes place round the nucleus, the presence of which until now was of no importance whatever. The deposition of phosphates is, however, copious, and the stone rapidly increases in size, and becomes of itself a source of irritation. Here, then, neither the original nucleus nor the constitution of the patient is to blame, but a local cause quite independent of either.

3rd. A deposition of phosphates may take place round a nucleus of uric acid, oxalic acid, or anything else, not on account of its setting up irritation, not because of the urine being retained and decomposed, but from there being an excessive elimination of phosphates by the kidneys. In common language, on account of the patient labouring under the phosphatic diathesis.

Lastly. A phosphatic calculus may form round a uric acid or other nucleus without any of the already-mentioned conditions existing, but simply and solely from there being an absence of that normal acidity of the urine which is essential to the retention of the earthy phosphates in solution until its emission from the bladder.

The diagnosis of cases of phosphatic calculi, renal as well as vesicle, is not only greatly aided by an examination of the urine, which may be said to contain, as a general rule, less phosphoric acid than normal, but even the differential diagnosis of the various causes inducing the calculi is also aided by an examination of that liquid.

1st. In cases arising from an excessive elimination of phosphates the reaction of the urine is normal, and it has no ammoniacal odour, nor does it deposit an excess of mucus.

2ndly. In those arising from an abnormal alkalinity of the blood the urine, although alkaline at the moment of its emission, either immediately after meals or during the whole day has no ammoniacal odour, nor does it deposit mucus in excess.

3rdly. In the first and second class of cases the urine is ammoniacal as well as alkaline when passed, and usually yields a copious deposit of mucus.

Lastly. The first and second class of cases are readily distinguished from each other by their histories.

Besides the triple or ammoniaco-magnesian phosphate, which is the most common kind of phosphatic calculus, there is also another variety composed solely of the simple phosphate of lime. This is comparatively speaking a rare form of stone, and fortunately its appearance is so very peculiar that it can be readily recognised without an analysis. Its external surface is smooth, polished, and shining like glass. It is exceedingly brittle, and has the peculiar tendency to break into regular layers like an onion.

Treatment.—From what has been already said it must have been seen that the various classes and kinds of phosphatic calculi each demand a separate mode of treatment, and that the old method of treating all kinds of phosphatic calculi alike is radically wrong. The pathology is the guide to the treatment.

In the first class the stone itself has to be attacked: in the second class the cause of the retention is to be removed; in the third class the vice in the tissues has to be got rid of; while in the fourth the normal acidity of the urine is to be restored. One and all of these are more or less within our power.

First, as regards the class of cases where the deposition of phosphates depends upon a decomposition of the urine taking place in the bladder. That we have seen may originate in two ways, and, as we shall again have occasion in another lecture to refer to the mode of treating both of the causes above specified, we shall for the present take it for granted that the cause has been removed, and that all that has now to be done is to get quit of the gravel or stone that has already formed in the bladder.

The common way to remove a vesical stone is, of course, to cut or crush it; but many persons, and especially old people, in whom the phosphatic calculus is most common, object to either of these operations being performed. What, then, is to be done? Fortunately, in the case of phosphatic calculi, the Physician has much in his power, for of all calculi the phosphatic are the most soluble, and if only gravel has as yet formed the chance of getting it removed by dissolution is very great. The simplest mode of treating such cases is to keep the urine constantly acid by the administration of the nitro-muriatic acid three times a day, after food, and to irrigate the bladder by means of the double irrigating catheter. This is a much easier operation than most persons who have not tried it imagine. The patient being placed on his back, the double catheter is passed into the bladder, the urine allowed to flow out, and then a caoutchouc tube, at least four or five feet long, is slid over the end of the catheter, while the free end of the tube is dipped into a can containing water acidulated with nitro-muriatic acid. The can having been previously placed at a convenient height above the patient—on the top of the bed-post, for example—the caoutchouc tube is to be so arranged that when the patient is ready the acidulated water will flow in a regular stream down through the tube, along the catheter, into the bladder, and from the bladder back again through the other division of the catheter, along another caoutchouc tube attached to its opening, into a pail placed beneath to receive it. If the acidulated water be kept at a temperature of about 90° F., the stream through the bladder may be kept up for a long time without causing the slightest discomfort to the patient. When the top pail gets empty it is refilled from the other as often as thought necessary. This treatment being continued for a certain time every day, the gravel is gradually dissolved without causing the patient any suffering.

In the third set of cases strict attention should be paid to the general health, and an effort made to improve it, and thereby restrain the elimination of phosphates from the system by a judicious selection of tonics. If this is not effectual and

(b) The word diathesis is here employed merely to save a multiplicity of words, not from any special significance being attached to its meaning, which is now pretty well understood.

the daily waste excessive, superphosphate of lime is to be administered, for the reasons previously given.

In the fourth class of cases, where the vice lies in the abnormal alkalinity of the blood, the strong mineral acids are to be administered. Vegetable acids, on the other hand, ought to be avoided, from the fact of their being transformed into carbonic acid in the system, which only tends to increase the mischief. In general it is sufficient to give the acid after food, but in very bad cases it is sometimes necessary to administer acid tonics also between the meals. In many of these cases the patients perspire freely, and the sweat is excessively acid, which in some measure accounts for the diminution of acid in the blood. To this class of patients I find much benefit arises from the use of nitro-muriatic acid in conjunction with gentian after meals, and a dose of sulphuric acid, to diminish the perspiration, between them. The patient's diet must also be carefully regulated: the animal food increased, the vegetable food diminished. The reason of this is plain enough, if what was said in the first lecture regarding the influence of diet on the reaction of the urine be considered. Herbivorous animals have alkaline, carnivorous animals acid urine, so that the more the patient resembles the carnivorous animal in his diet the less alkaline his blood, and the more acid his urine will become.

In trying thus to check the formation of the gravel or stone, care ought at the same time to be taken not to run to the opposite extreme, and by increasing the acidity of the system too much produce a deposition of gravel or stone of another kind. Uric acid, for example. The safeguard against falling into this error is found in the condition of the urine. As soon as the normal acidity of the urine is permanently restored the acid treatment and animal diet is to be stopped.

In the case from which this specimen of urine came we have an admirable illustration of the value of the benefit both of the means of diagnosis and the line of treatment I am now striving to inculcate. This urine is from Charles R., the patient at the Hospital, now under treatment for renal phosphatic calculus in the left kidney. As some of you may not have seen the case, it may be advisable briefly to relate it. Charles R., whose age is 49, came to the Hospital on December 1, 1863, complaining of pain in the region of the left kidney, which was increased by pressure applied both anteriorly and posteriorly. He says he has suffered from it during the last fifteen years. But what troubles him even more than the pain is the constant desire to make water. Sometimes he has to make it as often as six or seven times within a quarter of an hour. As a rule, however, he micturates every two hours, but after each micturition has to go three or four times before the desire entirely stops. At last only a few drops pass. This is attended with great discomfort. During the fifteen years he has been affected he has passed on one or two occasions a chalky-looking substance, and a year and a half ago a little blood came away with the urine. As some of these symptoms gave rise to the belief that there might be a vesicle calculus, I sent him in to my colleague, Mr. Thompson, and had the bladder sounded, but no stone could be detected. On analysis the urine was found to be alkaline, and deficient in phosphates, which, with the history and symptoms, led to the diagnosis of phosphatic renal calculus, arising from an abnormal alkalinity of the blood. Such being the diagnosis, the patient was ordered to take the following mixture three times a day:—℞ Acidi hydrochlorici dil., ʒss.; acidi nitrici dil., mv.; infusi chirettæ, ʒss. M. Already, on December 4, the patient made urine less frequently, and stated that he felt better. The quantity was 1350 c.c. (43½ ozs.). The specific gravity 1019. The amount of phosphoric acid 4·725 grammes (73·28 grains). The same treatment was ordered to be continued, and when I saw the patient on the 14th (ten days later) he spontaneously declared that he had never felt so well during the last fifteen years; in fact, he states that during that whole time his life had been a burden to him. The reaction of the urine was now acid, and although its quantity had been reduced to 1168 c.c. (38 ozs.) in the twenty-four hours the phosphoric acid had increased to 5·46 grammes (84·63 grains), the increase being of course caused by its being no longer deposited in the system. Being desirous of seeing if this improvement was entirely due to the medicine, I proposed discontinuing it, but at the urgent request of the patient had to content myself with merely diminishing the dose, as he declared it was the only remedy that had ever done him good, and he feared to fall back into his former miserable state. On December 21 he returned, saying he was not quite so well, and requested to be allowed more of the medicine. The urine was again analysed by my class-assistant, Mr. Mason, in order to ascertain if the patient's statement was correct, or if he only imagined he was worse. The following is the result of the analysis:—Quantity, 1240 c.c. (40 ozs.); specific gravity, 1022. Reaction slightly alkaline. The amount of phosphoric acid, 4·65 grammes (72·07 grains). The urine gave a considerable deposit, which, when examined microscopically, was found to contain prismatic crystals of triple phosphate, and a few octohedral crystals of the oxalate of lime. The examination of the urine, therefore, quite confirmed the patient's statement regarding his not being so well as on the full dose of the remedy.

ORIGINAL COMMUNICATIONS.

ON

THE TREATMENT OF MALARIOUS FEVER.

By E. HARE,

Deputy-Inspector-General of Hospitals, Bengal.

The result of the experiment which I performed in the General Hospital, Calcutta, by order of Lord Dalhousie, in 1849-50, was published on March 31, 1851, by the Medical Board, and a copy sent to every Medical officer in the service. Lord Dalhousie, on the successful conclusion of this experiment, requested the Commander-in-Chief to give me an European regiment with which I might continue my experiment on the treatment of fever and dysentery. I was accordingly, while still an Assistant-Surgeon, posted to the charge of the 1st Bengal Fusiliers, and my treatment was very soon put to an extreme test on the regiment being sent on active service to Burmah during the war.

My treatment was again most fully tried during the siege of Delhi in the mutiny of 1857, when my regiment, the 2nd Bengal Fusiliers, was encamped in tents before Delhi during the hot weather and rains.

I left my European regiment in 1861 for England, and since my return to India, having been promoted to be Deputy-Inspector, and my experimental practice thus terminated, I have obtained the returns of the mortality of my two regiments during the nine years I was in charge of them, and find it to be for fever, 1 death in 211·19 cases treated, or less than ½ per cent. mortality, the usual mortality amongst European soldiers in the Bengal Presidency, calculated from 1814 to 1850, having been for fevers, 1 death in every (a) 32⅓ cases treated, and for the European regiments in Calcutta, 1 in 30⅔ treated.(b) I think it my duty to state to the Profession more fully than I have yet done the treatment which I now adopt for fevers, caused by the exhalations from the soil, usually called malaria.

The importance of even a slight improvement in the treatment of diseases caused by this all-pervading poison can scarcely be exaggerated, and any change for the better will no doubt gradually spread to other countries; and it is remarkable that man is its chief victim, for animals do not seem affected by it; also from every 100 deaths occurring among the troops (c) in India, 23, or nearly ¼th, are occasioned by malarious fever.

Before the discovery of bark malarious fever seems to have been treated by no certain remedies, and, like other fevers at the present time for which we have no direct antidotes, Practitioners sought only to palliate the symptoms as they arose. No doubt the mortality was very great, for Dr. Johnson even in his time says that one-fourth of the crews of the shipping at Calcutta fell annually victims to it. From the strong and very peculiar tendency of the malarious poison to cause engorgement of the venous system of all the abdominal viscera, the liver suffered with the rest, and being the largest, its derangement attracted the greatest attention, and the fever was called almost universally in its worst forms "bilious remittent fever," its tendency to alternate paroxysms and remissions being another most prominent character. This fever, too, causes so much stagnation of the blood in the venous system of the abdomen, that the blood often partly loses its vitality, even before the death of the patient, and thus caused symptoms of putresence before, and very rapid decomposition after, death. The older Physicians, therefore, well

(a) See Dr. Norman Chever's table, prepared in the office of the Medical Board, for his very valuable Review of the means of preserving the health of European soldiers in India.

(b) See Martin, 1861, p. 88

(c) Martin, p. 94.

named the disease putrid fever. It is true that in modern days we do not see these putrid symptoms, on account of our improved method of treatment; but at the General Hospital, Calcutta, and in Burmah, I have had neglected cases brought to me which had not been treated till the last stage, and I am quite convinced from watching them, that were we now, as they were, without calomel and bark, we should often witness such cases, and think the older Physicians quite justified in naming the disease putrid. So, too, the engorgement of the liver and consequent derangement of all its secreting functions, causing dark offensive stools and a yellow tinge of the body, justified the epithet bilious. Till the introduction of bark, the chiefly disputed point in practice seems to have been blood-letting, some looking to the primary congestive stage, others to the putrescent. When bark was discovered, it found great opposition from the former, and strong support from the latter party. And how difficult it must have been for them to decide by their results the following remarkable passage will show :—

Dr. Raleigh, late First Assistant to the General Hospital, Calcutta, says, in his book on Dysentery, p. 65 :—"Some years since I had the curiosity to examine some of the old diaries of the General Hospital from the earliest dates I could decipher, when the practice followed in dysentery and fever was as contrary to that of the present time as it is possible to conceive it to have been. In those days, of 238 cases of dysentery treated from 1797 to 1799, 127 died, or very nearly one-half. Now it does not exceed from 10 to 14 per cent. But with fever how is it these mouldering records prove," he says, "that the deaths under a treatment of bark, opium, port wine, brandy, and meat —viz., mutton, roast fowl, and six to sixteen glasses of wine daily—do not exceed that of the present era of bleeding and starvation?" Bark then was used only in small inefficient doses as an antiseptic, and the extremes in diet produced nearly similar results.

Chinchona bark was introduced into Europe in 1639, and we find notices of its use in 1751 and 1757 by Cleghorn and Bogue, but there is no trace then of its having been used in any form of fever but ague. And, on the theory of its antiseptic qualities, it was combined with camphor, wine, and arrack, in correspondence with the theories of the putrid nature of fever. Dr. Lind, however, in 1765, evidently had advanced considerably, and trusted to the antidotal power of bark only, in the cure of ague, without combining it with other supposed antiseptics.

"In the proper administration of bark," he says, "the cure of agues may be said entirely to consist. Other remedies seldom become necessary, unless to prepare the body for this, to alleviate particular symptoms, or to give relief in cases where the bark cannot be used. When the ague was stopped by the bark after the first or second fit, as in my own case and those of 200 of my patients, neither a jaundice nor a dropsy occurred. When a dropsical patient suffered a relapse into the ague, which frequently happened, there was an absolute necessity for putting a stop to it by the bark, and in above seventy such patients I never observed any other than the most beneficial effects to have resulted from it. I never prescribed the bark till the patient was free from the fever, and then, without regard to a cough or any other chronic indisposition, I ordered it to be given in large doses. I have given the bark in every circumstance attending intermittent fevers during their remission, but never gave it during the fit."

In another passage, page 123, Dr. Lind explains more fully why he avoided giving bark during the paroxysm. He says, —"Bark generally excites sickness and vomiting if given during a paroxysm of fever. A desire to administer this great specific early sometimes led to this practice, but nothing was gained by it, as it was almost always rejected by the stomach; nay, there was some danger of raising a disgust in the patient to the medicine, which might continue during the remission." He says, also, page 121,—"By emetics the stomach is rendered incapable of receiving the bark, the only medicine we are yet acquainted with that possesses power to stop the progress of the fever. In all cases a vomit ruffled and fatigued the patient more than a purge, without procuring equal relief, and if a vomit were given during a paroxysm of the fever, it was generally found necessary to give a purge before the bark could be administered, by which a whole remission was often lost." And, page 94,—"If there be sickness and vomiting at the beginning of the disease, chamomile tea or warm water are sufficient to cleanse the stomach. The stomach is also relieved by a purgative glyster. In this way the vomiting is often quieted, and the stomach enabled to bear the bark."

Dr. Lind also tried to disguise the bark by mixing it with milk, coffee, wine, etc., "that it may sit easy on the stomach, and no time be lost. By these expedients the stomach is reconciled to the medicine, and enabled to receive a larger quantity, and retain it better. When the method, he says, of cure laid down above is carefully put in practice from the beginning it will in many cases prevent a return of the fever. In general, however, a sufficient quantity of the bark cannot be given in the first remission, nor is there time for it to produce its effects upon the body so as to prevent a second paroxysm."

Of the second paroxysm he writes,—"The second remission, as well as the first, is to be employed in administering the bark freely. In this way above two ounces may in general be got down before the fever returns, and this will in most cases be sufficient either to prevent entirely the next accession or so far break the force of it as to render it void of danger."

The above treatment is, as far as it could be, perfect for bad intermittents, before the invention of quinine. It was simple antidotal treatment, for he gave as much of the "specific" as the stomach would bear, without watching symptoms or placing any reliance for the cure of the fever on other medicines, bleeding, emetics, or even purgatives,—which last he only gives to prepare the stomach for the bark, and soothe it to receive without vomiting as much of the woody fibre as possible. Dr. Lind, however, never expanded his views or reasoned that the antidote which would cure one form of malarious fever — viz., the intermittent — might also cure another, the continued type; and thus he did not extend the utility of his valuable antidote to all the symptoms caused by the one malarious poison. Some Practitioners, however, about the same date, did do so, though it may seem to us, who have quinine, almost impossible to suppose that enough of the bitter sawdust could be given or retained on the stomach of a patient before a remission occurred in remittent fever.

P. 86, Dr. Hunter says :—"No disease requires more speedy assistance, for the efficacy of the medicine (bark) employed depends in a great measure on its being given early. The disease gains strength by repeated attacks, and is fatal, or materially injures the constitution. To wait for any crisis would be time irrecoverably lost." He trusts also simply to his antidote, without caring about particular symptoms, for he continues :—"After a purgative—it is of no great consequence what purgative is given—a little Epsom salts, jalap, or rhubarb will do—after a few stools have been procured, commence immediately to give the bark;" and he gives the purgative, he says, only "to make the bark sit easy on the stomach, for clearing out the bowels quiets vomiting, and, moreover, causes a quicker absorption of the bark into the system."

Dr. Clarke(d), who practised in Calcutta at the same time— 1768-1771—boldly adopted the antidotal treatment to its full extent. He says—"As soon as the intestinal tubes have been thoroughly cleansed, the cure must entirely depend upon giving the Peruvian bark in as large doses as the stomach will bear, without paying any regard to the remissions or exacerbations of the fever."

That the reader may more fully understand what I mean when I speak of symptomatic, or treatment of symptoms, and the antidotal, as instanced above, I will here quote a passage from our latest authority on the treatment of the same disease —Bengal remittent fever—(Dr. Martin, 1861, p. 322); for the contrast is most remarkable :—

"By him who would conduct his patient with safety through the troubles and distresses of a tropical remittent fever, two preliminary conditions must be settled. He must first select his means of cure with judgment, and apportion them carefully. In fever, above all diseases, we must admit that he who is able to distinguish what can be done, and what cannot be done, is the true Physician; but how great and difficult the task! He must measure his means to the wants of nature, neither too much nor too little, carefully avoiding what ought not to be done. Before proceeding to the cure of this formidable disease, it is always necessary to observe the age, length of residence in India, and the constitution, whether plethoric, bilious, or anæmic; for on these conditions must rest much that concerns the nature, amount, and persistence of our remedies. The Physician must likewise inquire minutely and carefully into the duration and actual stage of the fever— that is, whether the actual existing paroxysm be at its accession or decline. These are the first and more immediate points for consideration; for by the daily recurrence of these paroxysms changes take place in the relative balance of power in the

(d) Lind, p. 5, 126, quoted by Dr. Ewart.

several functions, nervous and vascular, which render a proportionate modification in our more active means of cure necessary to successful treatment. The means which would be salutary within the first few days cannot be used later with the same effect or to the same amount; and so again the means to arrest the fever and save life, if applied at the accession of the paroxysm, would induce a dangerous collapse, or even destroy life, if applied at the stage of its decline or towards its termination. After these preliminary cautions, the reader will be prepared to enter into the general details of remedies in their usual order of application, into a consideration of their respective physiological actions, into the preference to be given to some of them, and their application to particular uses. It is of great importance to arrange such means as are primary, so as to separate them from such as are but secondary or of minor consequence to the cure; for this purpose I have marked under their respective heads the various means in use for the treatment of remittent fever, very nearly in the order of their importance; and I would here observe that whoever pretends to encounter remittent fever with a mind unprepared incurs a fearful responsibility. The suitable education and training cannot here be postponed till the emergency arises."

There is, however, undoubted and overwhelming evidence that the simple antidotal treatment of fever by bark described above, was very successful; for Bruce, a man of universal knowledge, when he went to Abyssinia, selected bark as the only medicine to take with him, and he cured the King's and Prime Minister's sons by it of severe remittent fevers, giving the bark in the large doses from the very first—vol. ii. p. 179; and thereby secured their favour and permission to remain in the country. The Jesuits, too, were greatly indebted for their religious success in China, and in all parts of the world, to their Jesuits' bark, as it was called.

The celebrated Dr. Robert Jackson, 1778, p. 315, says "he felt warranted in saying that the Peruvian bark has every right to be considered as a specific in ague and fever, while it is totally free from the imputation of occasioning dysentery, dropsy, or visceral obstructions. These complaints are always most frequent where this remedy has been most sparingly used. Three or four ounces seldom failed to check the progress of the most formidable fevers of America, while one or two ounces frequently did not produce any sensible effect. Being perfectly convinced of the truth of the above observation, I generally gave bark in doses of two drachms, and where danger appeared to be threatening, the doses were increased to half an ounce, or even more. In some cases of obstinacy, indeed, accompanied with a sluggishness of constitution, I observed no other rule in the quantity than such as proved disagreeable to the stomach, or excited a tumult in the system. This method was generally successful, and I may observe in general that two ounces taken at five or six times, and in the space of eight or ten hours, were often more effectual than double the quantity in small doses at long intervals."

Dr. Jackson, to assure his readers of the impunity with which large doses of the bark could be exhibited in certain cases, states that he had "himself frequently taken an ounce at once. (e)

Dr. Lind expresses his convictions in favour of bark in still stronger terms, p. 257:—"Although I annually prescribed upwards of 140 lbs. of bark, I never observed any bad effect." P. 122—"The prejudices that formerly existed against the bark are no longer in being. They were founded on the speculations of the learned, but even with the vulgar they are now extinct. Any attempt to prove that the obstructions of the viscera are the effects of the disease, and not of the medicine, would now be deemed superfluous. The greatest, indeed, and the only evil arising from the bark, that has fallen under my observation, has been to excite sickness and vomiting during a paroxysm."

It was, however, this very evil of vomiting, combined with new theories on inflammation, caused by the publication of Dr. Baillie's work at this time on "Morbid Anatomy," which suddenly, by the agency of Dr. James Johnson's classic writings, displaced bark from general practice, and substituted bleeding and calomel. I can only give here brief extracts, but Dr. Johnson's book is most interesting, and well worthy the most careful study. Calomel, too, being tasteless, and easily given, no doubt must have been greatly preferred, by both patient and Physician, to such a bulky, nauseous powder as bark (p. 107).(f) About the year 1804, in September, Dr. Johnson arrived in Calcutta (p. 45), and "fever," he says, "was making prodigious havoc among the ships' crews in Diamond harbour. Nor were we long exempted from its visitation. I thought myself fortunate in having the works of two celebrated authors—Clark and Lind—containing a full account of this fever, drawn from personal observation on the spot. I accordingly studied them with great attention. In short, I was quite ready to grapple with this hydra disease, and show the power of medicine over this scourge of Europeans." His first case—p. 47—was "a young healthy sailor, who was seized with the usual symptoms of this fever. An emetic was prescribed, a perspiration broke out, and I now, with an air of confidence, began to throw in the bark, quite sanguine in my expectations of soon checking this formidable disease. But, alas! my triumph was of short duration, for in a few hours the fever returned with increased violence, and attended with such obstinate vomiting that, though I tried to push on the bark through the paroxysm, it was all fruitless, for every dose was rejected the moment it was swallowed, and I was forced to abandon the only means by which I had hoped to curb the fury of the disease. The other methods which I tried need not be enumerated, for they were temporary shifts, calculated, in Medical language, to obviate occasional symptoms. The plain truth was, I knew not what to do, for the sudden and unexpected failure of that medicine on which I had been taught to depend completely embarrassed me; and before I could make up my mind to any feasible plan, my patient died on the third day of his illness, perfectly yellow, vomiting to the last a dark fluid resembling vitiated bile, and exhibiting an awful specimen of the effects which a Bengal fever is capable of producing in so short a period on an European in the vigour of manhood. On opening the body I was surprised to find the liver so gorged with blood that it actually fell to pieces on handling it. Indeed, it appeared as if the greater number of the vessels had been broken down, and almost the whole of the interior structure converted into a mass of extravasation. In the brain were marks of turgescence in the venous system particularly, and more than the usual quantity of lymph in the ventricles."

Dr. Johnson did not try bark again, but resorted to bleeding for his next patient, and soon settled his practice of bleeding and evacuations "with a high hand," and ℈j. doses of calomel, with inunctions to produce rapid salivation. It was certainly very unfortunate that Dr. Johnson's first case should have been one of the cases in which bark must fail, for the simple reason that it is vomited, and therefore could not be given. Had he continued with more patience the bark treatment in other more favourable cases, he would have soon found that all that Clark and Lind had said of bark was true. However, there can be no doubt that such cases as the above did constantly occur, and they all died under the bark treatment, which, in fact, was then no treatment at all, for the bark was all rejected; but calomel and bleeding were always applicable, would constantly give great relief in such cases, and cure, no doubt, numbers of them. The vomiting and the uncertainty of bark in these severe cases, where it was most required, were known to all Practitioners; the failures and dreadful effects of the calomel and bleeding had not yet been experienced. The theories of the day, too, all ran in favour of evacuations for supposed bile and inflammations. The congestion, almost to bursting, of the vessels of the liver and brain, were considered as visible proofs of the necessity of blood-letting; and though this sudden revolution is the most surprising fact in the records of Medicine, we can see evident and sufficient reason for its occurrence, and writing as I do now, in the full knowledge of the grievous errors and fearful misfortunes inflicted on Europeans in India by Dr. Johnson's system, I confess that had I lived in his time, before quinine had been discovered, and before the evils caused by salivation and blood-letting and the failures generally of this system could be known, without doubt I would have adopted it, and plumed myself on my just reasoning in doing so. It will be very instructive if we trace more carefully from Dr. Johnson's admirable book his own reasoning more in detail, for there is a marvellous substratum of truth in it which his powerful mind seized, and which supported him through all his practice.

(To be continued.)

(e) Dr. Ewart, "Medical Annals," No. 14, p. 339.

(f) Dr. Johnson on "Tropical Climates," third edition.

THE APPOINTMENT OF SURGEON IN ORDINARY TO THE LORD-LIEUTENANT.—We understand that Lord Wodehouse has appointed to this office Mr. Butcher, the well-known Surgeon.—*Dublin Medical Press.*

CASE OF POISONING BY THE EXTERNAL APPLICATION OF IODINE.

By J. W. GILLESPIE, M.D.,
Superintendent of Quarantine, Flat Island, Mauritius.

An Indian immigrant named "Coondoo," aged 17, was detained at Flat Island, with his brother (who was convalescent from bilious remittent fever, but not sufficiently strong to bear the journey to Port Louis), at the termination of quarantine on July 28, 1864. On the same day he applied to be treated for slight enlargement and induration of the parotid glands, which had remained after an attack of bilious remittent, or "Bombay fever," about a month previously, whilst on board ship, and which occasionally became tender and painful. I should mention that parotitis is a most frequent complication in the cases of bilious remittent and bilio-gastric fevers occurring amongst Indians arriving here from Bombay, the inflammation in the severe cases going on to suppuration. On examination, the tumours were found to be of small size, and very slightly tender on firm pressure being made; otherwise the lad was in perfect health. A stimulant embrocation was applied on flannel, and on the second day all tenderness had disappeared. On the afternoon of the sixth day, as enlargement and induration still remained, and there was not the slightest trace of inflammatory action, I applied a strong tincture of iodine to each side once. (The tincture had been made a long time previously, and, owing to evaporation, had become saturated, some of the iodine being deposited.) To my astonishment, five hours after the application the lad was seized with vomiting and purging of yellowish fluid containing flocculi; and next morning all the symptoms of iodism were present—rapid feeble pulse, peculiar restlessness and anxiety, intense thirst, burning sensation in abdomen, vomiting, and purging, with suppression of urine. His mind was perfectly clear all through, and there were no symptoms of cerebral mischief; all traces of iodine had disappeared from the skin, which was not vesicated. The usual treatment by starch, opiates, etc., was employed, but without success, death taking place about thirty hours after the application of iodine.

Post-mortem Nine Hours after Death.—Head.—Surface of brain slightly congested; arachnoid of a gelatinous appearance, but transparent; section of brain presented some bleeding points; ventricles normal; cerebellum ditto. Chest.—Both pluræ completely and firmly adherent all round; adhesions apparently of old standing; lungs contain some frothy sanguineous fluid, and were somewhat congested, but otherwise healthy. Heart.—Pericardium contained about 1½ oz. of serous fluid, but there were no traces of inflammatory action; ventricles small and firm, each containing a large fibrinous clot sticking to valves. Abdomen.—Liver rather large and somewhat congested; gall bladder full of dark bile; spleen a good deal enlarged; peritoneum quite healthy; stomach contained about two ounces of grumous fluid; mucous membrane studded with small ecchymoses, and apparently thinned towards pyloric orifice; small intestines presented similar ecchymoses to those in stomach; large intestines healthy; kidneys, right normal, left atrophied, weighing only 1 oz.; bladder healthy, containing 1½ oz. of urine, which gave slight indications of the presence of iodine.

Remarks.—I think that there can be little doubt that death was in this case due to absorption of iodine, and that there existed a similar idiosyncrasy to that mentioned by Dr. Copland, as observed by him in reference to preparations of iodine ("Medical Dictionary," vol. 3, p. 410): that it was owing to metastasis I cannot conceive, as there was no local inflammatory action, and no evidence of cerebral inflammation. The appearance of the symptoms of iodine in a comparatively healthy subject a few hours after the application of iodine, the vanishing of all traces of such application, and the post-mortem appearances in the gastro-intestinal canal must be, I think, attributed to the absorption of the poison.

Deputy Inspector-General of Hospitals and Fleets P. Leonard, M.D., now attached to the Royal Naval Hospital at Haslar, has been appointed by the Board of Admiralty to proceed to the various large towns having Lock wards in their Hospitals, in order to make such a report as may be useful in carrying out the provisions of the Contagious Diseases Act, passed in the last session.—*Army and Navy Gazette.*

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CENTRAL LONDON OPHTHALMIC HOSPITAL.

CLINICAL REMARKS ON SYMPATHETIC INFLAMMATION OF THE EYEBALL.

(Under the care of Mr. HAYNES WALTON.)

[Reported by Mr. Atkins.]

This is among the subjects modern Surgeons have worked out, and about which a generation ago little was known practically. The following examples of cases afford an opportunity for expressing Mr. Walton's views on the subject:—

He maintains that disorganisation of the one eyeball from any circumstance may produce sympathetic ophthalmitis in the other eye; but for the most part—indeed, nearly always—the disease is seen when an eye has been lost from a wound; so that it is almost a traumatic affection. It does not seem, according to him, that any particular kind of wound has any specific effect, or that one tissue of the eye is more susceptible than another; for a blow without any breach of surface or a chemical injury may cause damage enough to excite it.

A man, 59 years old, was "hedging," and wounded the right eye. Sight was lost through acute inflammation. A year passed away before the left eye began to fail, and just before the other commenced to ache, although for some months it had been quiet and apparently well, so far as inflammation was concerned.

These were the evidences of the symptoms of the sympathetic attack, and they will express the general character of such invasion. They are placed in the order of succession. There was intolerance to light, with muscæ, spectra, flashes, impairment of minute sight, commonly called feeble sight, loss of pupillary movements. There may be variety in these in different cases in the greater intensity of some, and there may be pain or none. When the affection is allowed to run its course, the iris becomes discoloured, the eyeball gets softened, all the ocular tissues are involved, and the eye is atrophied.

The treatment here was to remove the wounded eye, as it showed signs of general disorganisation. Three weeks after there was a most material improvement in the sympathising eye, and many of the bad symptoms had left. No more was seen of the patient.

According to Mr. Walton, the diagnosis is not difficult nor obscure, and in traumatic cases most easy. Thus, as regards the eye primarily injured, he says it always manifests symptoms of irritation or disturbance, and there is evidence of acute or chronic inflammation. These may be slight, but they are to be discerned with care.

There is always soreness under touch. So far as he knows, vision is always lost. He lays great stress on the importance of not supposing sympathetic inflammation to be present when the second eye is attacked with the same idiopathic disease which occurred in the first, without producing disorganisation, being secondary only in the order of time.

The treatment, then, is to stop the cause of the irritation—to extirpate the disturbing eye, or to remove the front of it. The latter will suffice sometimes when the posterior tunics are not diseased; and it has the great advantage in being better adapted for an artificial eye, and not disfiguring the patient nearly so much.

It should be stated that there is no limit to the period when an injured eye may produce sympathetic disease in the other. Chronic inflammation may linger in the injured eye for months or years, before that action is developed in it which affects its fellow. A blow or any mechanical injury may be the exciting cause.

This second case illustrates some of the above remarks. A young man who had had in infancy purulent ophthalmia of one eye, was sent to Mr. Walton because of pain and inflammation of several months' standing in that eye. A portion of the cornea was destroyed, and the place occupied by a very small staphyloma. The symptoms, therefore, were very severe. The other eye was said to be weak. Mr. Walton carefully questioned the man respecting the sound eye, but could find no proof whatever of sympathetic ophthalmitis—not one of the many conditions that existed in the other case. As, however, all the remedies which had been tried by another Surgeon had

failed, and as the diseased eye was useless, and had been so for many years, and as the pain scarcely ever ceased, he removed the front of the eye, the staphyloma, and the remains of the cornea—that portion, in fact, in which the cause of irritation seemed to reside.

It turned out that the diagnosis was quite correct in this case; it was not one of sympathetic ophthalmitis. No irritation could have been conveyed from the painful eye to the other, because in it there was no disorganisation, no breaking down, or disintegration of any part. The lens was transparent, and therefore the vitreous humour was normal. The sole disease consisted in inflammation of the staphyloma; that is, the cicatrix which occupied the place of the lost cornea.

THE LONDON HOSPITAL.

A CASE OF OBSTINATE DIARRHŒA AND HÆMORRHAGE FROM THE BOWELS, CURED AT ONCE BY REMOVAL OF A POLYPUS FROM THE RECTUM.

(Reported by Dr. W. BATHURST WOODMAN, Resident Medical Officer.)

A LITTLE girl, aged 5½, had been attended by various Medical men, for obstinate purging and passage of blood in the stools, which had lasted six months. All the astringents in the Pharmacopœia had been tried in vain, and the child was becoming much reduced. I saw her for Dr. Ramskill on July 6, and diagnosed polypus of the rectum from her symptoms, but failed to discover it on a digital examination. But fourteen days after, I felt the growth, nearly 2½ inches up the rectum, on its posterior wall, and in dragging it down, nicked it off with my nail. It had a very short, thick peduncle, was about the size of a fourpenny piece and button-like, about ⅛ inch in thickness, and consisted of fibro-cellular material, with mucous membrane like the uterine polypi (or "fibroid" or "desmoid" tumours) one so often meets, with nucleated oat-shaped cells, and fibres. All hæmorrhage and purging ceased from that date, and the child has now regained her usual health. The mother had several times seen a "red thing like a cherry" when the child had strained at stool.

BIRKENHEAD BOROUGH HOSPITAL.

ASPHYXIA—TRACHEOTOMY—EXTRACTION OF FOREIGN BODY THROUGH THE INCISION—PNEUMONIA—RECOVERY.

(Under the care of Mr. ESSEX BOWEN.)

K. Q., aged 8 years, was admitted into the Hospital on August 14 last, at 1 p.m., in an almost lifeless condition, to all appearances in the last stage of asphyxia, and with a history of having "swallowed," nearly an hour previously, a piece of broken porcelain cup.

Tracheotomy was promptly and successfully performed by Dr. Selwood, the House-Surgeon, who thus had the enviable satisfaction of restoring the patient to life, and of establishing quiet respiration through the trachea-tube.

Neither upon opening the trachea nor upon tilting the child's body was there any promise of the expulsion of the intruding substance, and when I found her shortly afterwards comparatively comfortable, yet far from recovered from her great exhaustion, I deemed it prudent to abstain from explorative measures until further restoration had taken place.

The admission of air to the lungs (after the operation) being unimpeded, and the occlusion of the rima glottidis remaining (as tested by closing the wound after removing the tube), it was evident where the foreign body lay. Upon the following morning, therefore, after having by means of a probe passed through the wound, distinctly felt a smooth hard substance in contact with the inner surface of the thyroid cartilage, I endeavoured, with the concurrence and assistance of my colleagues—Drs. Jennette, Stevenson, and Lambert—to carry out Mr. Bryant's suggestion (*British Medical Journal*, 1863) of dislodging the intruder by pushing it upwards into the pharynx. This manœuvre, however, after repeated trial with all justifiable force, was unavailing, the upward passage of the instrument meeting with a firm resistance. Thorough explorations of the pharynx from above revealed nothing. I next enlarged the tracheal wound upwards, and having procured, after some delay, a suitably bent and slender forceps, I extracted from its impacted situation above the rima a jagged fragment of hardware, with sharp bevelled edges. It measured seven-eighths of an inch by half an inch.

Owing to the exhausting nature of the whole procedure—the small size of the child's trachea, the tumefaction of the mucous membrane, and the impaction and smooth surface of the foreign substance—this extraction was no easy matter, and it must have produced considerable laceration of the tracheal lining.

Though greatly relieved by the removal of the cause of all her distress, this little patient subsequently passed through a very critical and protracted attack of pneumonia of the left lung, which for many days caused her life to be almost despaired of. She has now, however (October 17), completely recovered, and leaves the Hospital with a slight huskiness of voice as the only remaining trace of her trouble.

I would point out, as being, perhaps, somewhat exceptional in this case—firstly, the very gradual occlusion of the glottis, the substance having entered the larynx about an hour previous to her admission into the Hospital; secondly, the firm impaction of the foreign body, consequent upon its nature and form, giving rise to no cough; rendering the tilting of the patient's body of no avail; frustrating most completely all efforts to dislodge it by pushing it upwards; and, finally, making it an extremely difficult matter to seize and extract it through the wound.

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Medical Times and Gazette.

SATURDAY, NOVEMBER 5.

THE CASE OF GEORGE KING.

IN our last week's number we noticed shortly a "case of death from alleged violence in the Green Park," which was exciting great interest in the minds of the public, partly from the degree of mystery which surrounded what was clearly death from violence, however inflicted, and partly because some blame seemed to be attached to the treatment of the case at one of our large metropolitan Hospitals; but as the inquiry in the Coroner's Court was not then finished, we contented ourselves with giving a *resumé* of the evidence so far given, without any remarks. The verdict of the jury, twice adjourned, was given on Friday last, and it is now our duty to comment on the case. And, as it is one of the highest importance in a Medico-legal point of view, we shall not hesitate, in order that the case may be clearly before our readers, to repeat the information we gave last week, and re-state the whole of the evidence.

On the afternoon of Friday, September 30, George King, an inspector in the service of one of the gas companies, left a fellow-workman in Piccadilly to go home; it was only four o'clock, but he complained that he was "queer" from blowing down gas pipes, and was unable to continue at work. His way home laid across the Green Park. Between four and five a Mr. Matthews saw him in the Green Park near Stafford House, "on the gravel path endeavouring to rise. In endeavouring to rise he fell back again on his side. He seemed to strike his forehead against the ground. He rose immediately, staggered back, and fell on the back of his head. It was a most fearful fall, and he lay as if dead. He was lifted on the grass wholly insensible. A gentleman smelt his breath

and said he had not been drinking. He had not staggered like a drunken man, but like a person giddy or in a fit. The witness observed a bruise on the forehead, and an injury at the back of the head." In this state he was seen by Inspector Green, of the A division of Police, who says, "he seemed to be dying. He did not seem drunk," and who sent him, at about twenty minutes to five, to St. George's Hospital. There he was seen by the Resident Medical Officer and the House-Surgeon; they considered that he "was suffering from the effects of intoxication," and he was "treated for intoxication." The man recovered to some extent, and at seven o'clock he was sent out of the Hospital in charge of a policeman, who took him to the station in King-street, Parliament-street. "He walked feebly, but *without any resistance.*" Early the next morning he was bailed out by two friends, who state that he was "shivering and unconscious," and that his head and one hand were dreadfully bruised. One of them remarked, "There has been foul play here," and the poor man's wife, who was present, exclaimed to the police, "You have murdered my husband while he was in your hands." King was then taken to a neighbouring public-house and given some brandy, and thence to the Westminster Hospital. There "he was stripped and examined. Numerous bruises, apparently from kicks and blows, were found on his head, face, hands, arms, abdomen, back, and chest, while the skin had been knocked or kicked from his legs in some places. His skull was dreadfully fractured." He died in the Hospital on Wednesday, October 5, and on examination it was found that one of the lateral sinuses was ruptured, and there was a large effusion of blood on the brain. Mr. St. Aubyn Hawken, House-Surgeon to the Westminster Hospital, stated in his evidence "that the fracture of the skull began midway between the occipital protuberance and the ear—that was to say, in a hollow; if a fall on the back of the head had done the mischief, the fracture would have been produced elsewhere. No blow struck on any other part of the head would produce a fracture in the spot mentioned. There were fourteen distinct and separate bruises on the head externally, three on the forehead, seven on the top of the head, and four at the back of the head, one of the latter being behind the left ear. The blow behind the ear had produced the fracture of the skull and the rupture of the sinus, but the clot of blood could not have formed on the brain when Mr. Jones (the Medical Officer at St. George's Hospital) saw the deceased, or he must have noticed the symptoms; consequently, witness was led to believe that the rupture of the sinus was only completed after reaction had set in. The deceased had experienced reaction before leaving St. George's, for he partly roused himself, and witness believed that if the fissure of the skull then existed the blood would instantly have flowed from the rupture, which was not the case." Mr. Freeman, House-Surgeon at St. George's, "entirely agreed with Mr. Hawken as to the time at which the rupture of the sinus must have occurred. He examined the deceased when he was brought in from the Green Park, and there were no bruises or grazing on his head." Mr. Jones stated that "he saw no bruises. He was of opinion that there was no lesion of the brain when deceased was brought in from the park. The eyes were sensitive to light. The skull might have received the fracture from the fall mentioned, but the rupture of the sinus was an enormous one, and that could not have taken place or the blood have issued from it at that time." It was proved that the deceased could not have inflicted the injuries on himself in the police-cell; and of the several policemen examined, inspectors and privates, all denied having struck the man, or having had any struggle with him. The coroner "summed-up" rather strongly against the police—at least, so we read his remarks—but the jury returned an open verdict, appending to it an "opinion that the Surgeons of St. George's Hospital ought to have kept the deceased in that institution, and not to have given him over into the hands of the police."

It would be very difficult to exaggerate the importance of this case. To explain it, we must suppose that a man may be foully murdered by numerous and deadly blows inflicted, or may be suffered to inflict numerous and fatal injuries on himself, in broad daylight, in one of our most frequented thoroughfares; or that he was brutally maltreated, literally beaten to death, by the police, and that without any known reason for their having had any struggle at all with him. Of these three suppositions, we must confess that the last appears to us the least probable, though the acceptance of either of the two former involves the admission that such injuries as King had received could have been overlooked by the resident Medical officers of one of our large London Hospitals; but it seems to us wholly incredible that a man should have met with such frightful maltreatment at the hands of any of our police force, and especially from the members of the A Division. To render this credible it must be proved that the injuries inflicted *could not* have been received when King was taken to St. George's Hospital; and to make it necessary to fall back on the first supposition it must, according to present evidence, or absence of evidence, be proved that the injuries *could not* have been the result of falls. And here we must take leave to differ from the Medical officers of St. George's and the Westminster Hospitals. *It is improbable* that such injuries as King had suffered should have been caused by falls, but it is *possible.* We have known a cut on *the top* of the head to be caused by a fall on a gravel walk in an epileptic fit; and cases might be quoted from Casper's and other works on Medical Jurisprudence to prove that fracture of the skull can be caused by falls on the ground—falls, we mean, from no elevation above the ground, and it is proved that King fell backwards with "fearful" force. Mr. Hawken admits that "the fall spoken of—the fall backwards in the park—might have produced a fracture of the skull," but does not think that it could have produced the particular fracture that existed. Mr. Jones goes farther, and allows that "the skull might have received the fracture from the fall mentioned," and we agree with Mr. Jones. Then as to the time when the effusion of blood within the skull took place? In Taylor's "Medical Jurisprudence," at page 307 (fifth edition) the following case is quoted:—"A man fell from a scaffold, on the summit of his head. He was stunned by the fall, but on reaching the Hospital dismounted from the car which conveyed him, and walked upstairs with very little assistance. He died in three days, but remained perfectly rational, and was enabled to get up and go to the water-closet the day before his death. On inspection, there was only a slight abrasion on the vertex; but the skull was found split into two nearly equal halves from the frontal bone backwards, through the sagittal suture to the foramen magnum. The *longitudinal sinus was laid open throughout.* In both hemispheres there was a large quantity of effused blood in a semi-coagulated state, and more than two ounces were found at the base of the skull." Again, at page 318 is a case observed by Dr. Stevens and the late Dr. M'William. A Custom-house officer was knocked down, and fell with his head on the ground. "He appeared as if stunned, and staggered in attempting to walk: he complained of pain in the head and general weakness. This was on April 11." He continued to perform his duties, though suffering from pain in the head, till May 12. On May 29 he came under the care of Dr. M'William. "There were marks of bruises on the head, impaired vision, faltering gait," etc. In June he became insane, and was admitted into St. Luke's Hospital, under Dr. Stevens, "evidently suffering from pressure on the brain." He recovered so far that he was about to be discharged, when he again relapsed, and died on *August* 17. On examination, there was found "a large clot of blood between the layers of the arachnoid, occupying the whole surface of the left hemisphere. It had evidently been there for some time, because it was partially invested with a false membrane. The surface of the brain had been obviously indented by its pressure." We might quote from the valuable essay on "Injuries of the Head" by Mr. Prescot Hewett (Surgeon of St. George's

Hospital), in "Holmes's System of Surgery," further proof that the power of volition and locomotion may co-exist with fracture of the skull and effusion of blood on the brain; but the first case we have adduced is proof enough, and we do not think that it will be denied by the Profession generally that the injuries to the head from which King suffered may have existed when he was taken to St. George's; and it must be remembered that he was not seen by any of the Surgeons or Assistant-Surgeons of that Hospital. We think also that the weight of evidence is decidedly against the man's having been drunk. We are at a disadvantage in commenting on the case, for we have no *professional* report of it, or of the post-mortem examination; but one other remarkable feature will be added to it if any very important Medical evidence can be brought forward which was not adduced at any of the three sittings of the Coroner's Court. We understand, however, that King was *washed and examined* at St. George's, and that while there he vomited matter smelling of rum,—points which have not appeared in evidence, which states distinctly that his *body* was not examined. His having taken some spirit does not, indeed, prove that he was *drunk*, but it would help to justify the diagnosis of intoxication. We should like to know whether the Medical officers were informed that an Inspector of Police had seen the man, and did not consider he was drunk, for such an opinion from an experienced police-officer ought to have carried considerable weight. We have heard also that when King was sent out from the Hospital it was on the understanding that the police were to take *him home*—a very important point, for we could not but regard his having been sent out to recover from narcosis induced by drink, even if indisputable, in a police-cell, as a very grave error of judgment.

It was unfortunate that it was not positively understood that the police would really take the unfortunate man home, for we are sure that had the police made known their objection "to pick the man's pocket," in order to learn his address, the Hospital authorities would have spurned such an affectation of delicacy. That the police should pretend to let such spurious sentimentalism and sickly prudery prevent their learning the address of a man in such a helpless condition is the only thing that favours the idea that they may have maltreated him, for such affectation of super-refinement and a love for the excitement of cruelty may very well go together; but, granting even this, it is incredible that they would have so foully and violently maltreated a defenceless and helpless fellow-creature. We feel curious to know whether this delicate scrupulousness prevails among the police of the more eastern districts of London.

We think, then, that the diagnosis of intoxication was clearly erroneous; we hold that the fracture of the skull, and the effusion of blood on the brain, may have existed when King was brought to St. George's; and we think that if all the external injuries to the head were bruises only, not *wounds*, it is possible they also had already been inflicted, but that the marks of the bruises had not yet become visible; we have distinct evidence of two falls which must have inflicted bruises, and two witnesses swear that in the open daylight they had noticed a bruise or graze on the forehead. What marks of this kind there were would not be so noticeable in the dimmer light of the reception-room of the Hospital, and, the diagnosis of drunkenness having been formed, King's head may not have been again carefully examined when he was sent out two hours later. We believe, then, that we must choose between the suppositions that King was beaten to death in the Green Park, between four and half-past four o'clock, or that his injuries were the consequence of falls when he was in a semi-comatose state; and as the latter appears to us to be possible, though by no means very probable, we believe it to be a less incredible hypothesis than the former. A murderous assault upon a man would inevitably, one would think, have attracted notice, while falls of a person who to inattentive observers would seem to be intoxicated would be comparatively disregarded.

THE CHARGE OF EXTORTION AGAINST "DR. HENERY."

Scarcely has public attention ceased to be directed to the proceedings of the lowest class of unlicensed Practitioners by the abortive prosecutions instituted by Mr. Talley, when one of these individuals appears to have been brought within the grasp of laws likely to deal with him in a far more certain and stringent manner than the "Medical Act, 1858," could have done. Should the charge now pending against Henery prove well founded, and should he expiate by a term of penal servitude his offences against society, it will have been fortunate for the interests of humanity that this self-dubbed Doctor should have overstepped the safer limits of deceit and fraud and entered on the bolder course of extortion by threats. The victim in this case was not judiciously chosen. Though ignorant and simple enough to be imposed upon by absurd pretensions to secret remedies, and probably also by the phantoms of imaginary diseases, he had the courage not merely to turn a deaf ear to menaces, but to make them recoil on the heads of the would-be extortioners by voluntarily undergoing all the notoriety with which they threatened him. The preliminary proceedings before the magistrate are not yet completed, the case being adjourned to Tuesday next—although it has been stated, wrongly of course, that Henery was already committed for trial—and we shall therefore offer no comments on the strength or weakness of the evidence in support of the charge. But we have the highest and most recent judicial authority for the doctrine that free statement of all that occurs in this country is a liberty of the press which is beneficial to society, and of this privilege we avail ourselves.

It appears, then, that a captain in the army, having seen one of Henery's advertisements, consulted him; that the captain should not have known better is somewhat remarkable, considering the free discussion which is a feature of mess-table conversation. The fact would perhaps indicate that the enlightenment of such discussion does not always equal its freedom. The patient was advised to take exercise, and to bathe every morning, but he, like most other people, seems to have been already alive to the benefit of these practices. He also was induced to swallow eighty bottles of what is stated to have been coloured water, for which he paid a guinea a bottle. Thus far the case wears an every-day complexion, and had it ended here, the public would never have heard of it; but the captain, finding that his health was not very much better after this treatment than before it, ceased to send for the medicine. The case for the prosecution is that the "Doctor," now finding his first game played out, attempted to extort £150 more by threats of "exposing the case." But the patient, though he had been a fool, was no coward; instead of submitting to the demand, as we fear most men who had thus far been victimised would have done, and become perhaps the source of a life annuity to their tormentors, he coolly placed the matter in the proper hands—those of his attorney.

We refer our readers to the report contained in our last impression for the details of the evidence, and will merely mention, as a subject of congratulation, that should the charge be substantiated at the trial the judge will have the power, should he think fit to exercise it, of sentencing the offenders to penal servitude for life.

The issue of the case is one of the deepest interest, and whatever be its termination, the publication of the facts cannot but be of the greatest public benefit. Until education of the right sort shall have been so far diffused that officers of the army will no longer believe that decayed tradesmen in back parlours and retired cabdrivers who keep museums possess secret and unknown remedies for special diseases, it is well that the fear of pecuniary loss should operate to deter the unwary from entering the nets spread for them. We see here, however, but one phase of the evils occasioned by the "dirty quacks." Their victims usually suffer as much in mind and body as in estate, and are robbed at the same time of wealth, health, and happiness.

We have repeatedly had to call attention to the assistance afforded by most of the newspapers in circulating the poison of these noisome extortioners. The *Daily Telegraph*, one of the chief delinquents, must have appeared to a reader who took it up on Tuesday week to have fully seen the error of its ways, and undergone a complete repentance in sackcloth and ashes, provided only that his attention was confined to the leading columns.

But what must have been the astonishment of the sympathising reader when, as he turned his paper round, his eye was caught by the too familiar headings of some half-dozen offensive announcements by the quacks against whom the leader indignantly protests! Should the beadle at the door of one of the so-called anatomical museums, at the same time that he hands his volume of obscene trash, give utterance to a lecture on the infamy of his offensive trade, he would be deemed guilty of a glaring inconsistency. The wages of iniquity are not more respectable when they help to fatten the proprietors of a thriving journal than when they keep from starvation the wretch who distributes handbills in the kennel.

THE LAST NEW ISM.

In the name of Samuel Johnson and the whole army of lexicographers, what is Ptochogonism? and who in the world are Ptochogonists? The etymology of the words is a good deal plainer than their import. One's Greek is not so rusty but that one remembers πτωχὸς to mean "beggar" or "pauper," and γόνος "race" or "offspring;" but still, after piecing the words together again, their conjoint meaning is by no means self-evident. The terms, we are informed, have been coined by certain Oxford *savans*, and are much used by them to cast contempt on those who are trying to render the benefits and prizes of an Oxford education accessible to the middle as well as to the upper classes;(a) who, in other words, are simply trying to carry out the express wishes of the founders and benefactors of the place. Now, it is a curious fact that there is no set of men at Oxford who talk about "founders' wishes" and "founders' intentions" with more seeming appreciation than the *savans* aforesaid. When, however, they find their official utterances taken literally, and positive efforts being made to place University advantages within reach of poor as well as rich, in moments when off duty they stigmatise measures so offensive to their privileged gentility as Ptochogonism, or beggar-breeding, and promoters of the said measures as Ptochogonists, or beggar-breeders!

THE WEEK.

MEDICAL CANDIDATES FOR PARLIAMENT.

We are glad to find Medical men coming forward as candidates at the approaching election. Last week we noticed Mr. Mitchell Henry's address to the electors of Woodstock. This week we record Mr. Alfred Smee's to the electors of Rochester. Mr. Henry professes advanced Liberal opinions; Mr. Smee's creed seems to be that kind of Liberal Conservatism, or Conservative Liberalism, which induces a man to hold what is good and reform what needs be mended. But to whatever party a Medical M.P. may attach himself, there will be plenty of questions which hardly can be made party ones. There are the interests of the Medical Profession—or rather not so much its interests to advocate as the plain and simple process of making known the real facts of the various cases in which these interests are concerned: we will only allude to the Medical service of the Army and Navy; and there is the whole list of scientific and sanitary questions, on which the opinion of a Medical man should be worth much. Mr. Smee's activity, and business habits, and intimate acquaintance with the commercial world add much to his usefulness. We commend Mr. Smee's claims to the support of our Professional brethren at Rochester and the neighbourhood.

(a) See *Medical Times and Gazette* for October 22 ult.; Article on "Extension of University Education."

THE LATE JOHN LEECH.

We can hardly claim John Leech as one of us, yet so good, so universally popular and beloved as he was, we gladly record the fact that it was not his fault that he was not a Practitioner of Medicine. He was the son of a respectable hotel keeper in the City, and on leaving school was placed as a Medical student under the care of Dr. John Cockle, now Physician to the Royal Free Hospital. Whilst in Dr. Cockle's family he won the hearts of all about him by his gentleness and kindness of disposition, his perfect manners, and his musical taste. It must be confessed that he did not take very heartily to the study of physic, but he was indefatigable in making sketches. No matter where he was, or what was going on, he was sketching on paper, fly-leaves of books, and the walls of Dr. Cockle's study. Very soon his father's circumstances altered for the worse, and young Leech, being compelled to abandon Medicine, took to his pencil for a livelihood. And well he did his work. Whatever is fine, graceful, or elegant in man or woman he sketched to the life; and his satire is without a spark of malice. He always was what is called nervous and sensitive, and a brain delicately and feebly organised broke down at last from the pressure of hard work. Three weeks ago a friend saw him on the sands at Scarborough, looking quite the old man. He did not live much longer. His complaints of street noises were pathetic in the extreme; but alas! we must say again what we said lately, they who cannot bear London noise should tell their griefs to their Physician. They are over-wrought or under-nourished, and should take the hint and beat a retreat in good time.

VISIT OF THE METROPOLITAN BOARD OF WORKS TO CARLISLE.

Like a good many other repentant sinners, the Metropolitan Board of Works, after getting all they possibly could by a course of doubtful propriety, are suddenly brought to see the error of their ways just after they have bagged all the spoil. Engineers and contractors having been thoroughly well provided for, the interests of the ratepayers are to be at last considered, and the Board are absolutely beginning to awake to the possibility of utilising the sewage. Of course, had they done this four years ago a good deal of public money might have been saved, and some of the *employès* of the Board would have been so much the poorer. If we are not angelic enough to forgive the faults of the penitents, we yet are glad to chronicle the fact that the deputation sent by the Board have now had ocular demonstration of the wicked waste they have been spending enormous sums to perpetrate:—

"On Saturday last the Board, including the Chairman (Mr. J. Thwaites) and his secretary, Mr. Freeman (Chairman of the Main Drainage Committee), accompanied by Mr. Bazalgette, their chief engineer, arrived at Carlisle to inspect the works in operation for the utilisation of the sewage of the city. They proceeded to the Willow Holme, near the main outlet of the sewage of the city, where the works conducted by Mr. Alexander M'Dougall, chemist, Manchester, are in operation, and that gentleman explained to the Board the manner in which the sewage is applied to the land he has in hand. The area actually irrigated is about sixty acres. The Board were first taken to a small engine-house, near which is sunk a deep well, into which the sewage is run, and where it is disinfected. The process of disinfection is very simple. In two barrels, placed in a covered house, carbolic acid, which is insoluble in pure water, is dissolved in lime water, and then runs into a third barrel. This is the disinfecting liquid, and it runs slowly into the well below, in which the sewage is collected, and there it is mixed with it, and then pumped into canals, which convey it on the land. Mr. M'Dougall stated that the principal part of the sewage of Carlisle is utilised. Speaking in rough numbers, the population in the district of which the sewage is not utilised, but is run into the river, is about 7000 or 8000; while that of the whole of the other districts of the town (all the sewage of which is applied to the soil) is 22,000 or 23,000 people. Mr. M'Dougall stated that there had not been any complaints made of the slightest smell from his land or works, and the Metropolitan Board verified this by

their own senses. As the Board walked over the land, Mr. M'Dougall made some interesting statements as to the effects of the application of disinfected sewage to the land. He had found that, whereas in places where sewage has been applied in a putrefied state the finer grasses are destroyed and rank coarse grass takes its place, the application of disinfected sewage had not been attended with a like result. The fine grasses were still preserved. Fears had been expressed by practical farmers that although they might do to depasture milch cows upon, yet when these meadows came to be used for sheep feeding the animals would be ruined by the disease of 'flukes in the liver.' Experience had shown these fears to be groundless, the deodoriser acting as a preventative. Nor had any foot-rot been experienced. Indeed, the disinfector being an antiseptic, any sheep slightly affected with foot-rot were cured by being put upon the irrigated land. Mr. M'Dougall stated that he considered the produce on the irrigated meadows to be about four times as great as that on the land to which the liquid sewage is not applied, and in some parts, where the irrigations had been made more frequently, five times as great. Having finished their inspection of the works, the Board returned to the city, and learnt from the butcher by whom the land is rented (Mr. Moffat Hetherington) that he considered the application of the sewage most beneficial. Experience had shown him that it was twice as valuable to him as land otherwise of equal value which had not been irrigated."

THE NEANDERTHAL SKULL.

It is an old observation that Nature is thrifty of causes, but lavish of results. Whatever may have been the cause or causes which produced the peculiar shape of the head of the venerable denizen of the Neanderthal cave, there is no doubt that one of its results is the display of a large amount of ingenuity in this nineteenth century which, had it not been for the interesting savage's cranial conformation, might never have been brought to light. If there is no speculation in those eyes, or rather under those supra-ciliary ridges, at all events there has been a great deal about them. If the skull is not suggestive of any great amount of wit in its quondam owner, it at least has been the cause of much sharpening of the wits of others. What a providential thing it is that bones and teeth are not perishable! Had it been otherwise, what would have been the fate of geologists, palæontologists, cranioscopists, anthropologists, ethnologists, *et hoc genus omne*. Nature abhors a vacuum, and no doubt one of the reasons why she conferred such indestructibility on mortal remains was to fill up the void which otherwise would have been left in their existence. How heavily else would time have hung on their hands. How they must have bothered other people for something to do. Like a sensible parent, Nature in fitting our nursery has not forgotten the toy department, although in sober truth it must be confessed that her playthings are by no means mere gauds, but puzzles and picture alphabets, by mastering which we may perchance some day find a clue to her inner mysteries.

Since the appearance of Professor Schaaffhausen's memoir this calvarium has been appealed to in support of half-a-dozen theories, most of which, although diametrically opposed to each other, have derived their main claim to attention from it. It has been the *pièce de resistance* on which starving hypotheses have fallen pell-mell. If an imaginative *savan* wanted to prove his own Simian origin, what better hobby-horse than the enormous supraciliary ridges and depressed frontal of the Neanderthal man on which to canter "adown the gulf of time?" If another started the theory of a pre-Adamite race, differing essentially from the present variety of *homo sapiens*, what a capital text to dilate on was the cave man of Hochdal. If a third felt convinced of the necessity of asserting that Europe was once inhabited by Australians—had not Professor Huxley found an Australian skull in the College of Surgeons which closely matched the Neanderthal? The idiocy theory and the ricketty hermit theory equally agreed with this most suggestive relic; and lastly, for the comfort of those who stand on the unalterableness of race characters in all ages and under all vicissitudes, the late Professor Rudolph Wagner gravely assured them that in his opinion the skull might have been the personal property of a modern Dutchman.

We have, however, at last got an explanation of this really very curious specimen, which we hope may be a final one, based as it is, not on the romance of history, but on careful anatomical investigation. Dr. J. Barnard Davis, the accomplished author, with Dr. Thurnam, of "Crania Britannica," has privately circulated a pamphlet which seems to us to throw considerable light on the matter. Dr. Davis observed in the photograph and cast of the skull that the sutures of the anterior portion were either absent or very slightly indicated. In Professor Schaaffhausen's original description it was stated that "the coronal and sagittal sutures are on the exterior nearly closed, and on the inside so completely ossified as to leave no traces whatever, whilst the lambdoidal remains quite open." In order to assure himself on the point, however, Dr. Barnard obtained the following accurate description from Professor Fuhlrott, of Elberfeld, to whom the skull belongs:—

"1. The *coronal suture*, on the external surface of the skull, is only obscurely perceptible on the left side for three inches, and on the right side for two inches, from the anterior extremity of the sagittal suture. Descending from these points, as well as on the internal surface of the skull, it has been entirely ossified, and is tracelessly vanished. The external coronal suture is, notwithstanding, found to be indicated in *all the figures* of the Neanderthal skull given in different works, even in that of Professor Huxley ("Man's Place in Nature," p. 139). 2. The *sagittal suture* is both externally and internally untraceable, from ossification; still, on the outer surface, its direction is marked by a gentle depression. 3. The *lambdoidal suture* is very plain, both externally and internally, and runs in the normal manner on the right side to the *pars mastoidea* of the temporal bone, and here, so far as it is formed by the parietal bone, exists in a perfect state, whilst on the left side it appears somewhat defective. 4. Of the the *squamous suture*, the middle portions on both sides of the skull are obviously present, upon the parietal bones. 5. Of all *the other sutures*, namely those taking their course on the points of examination on the frontal, parietal, and squamosal bones, there is nothing to be found, even no partial indication, 'einseitige Andeutung.'"

In the state of the sutures Dr. Davis finds the whole explanation of the riddle. He believes the Neanderthal skull to be simply an abnormal example, owing its peculiar form to synostosis of the cranial bones before the calvarium had attained its full development. He, moreover, possesses a skull which was once the property of Deville, the phrenologist, and is in all probability the skull of a modern Englishman, which in many respects resembles the Neanderthal in shape, and is, like it, a remarkable example of synostosis, the coronal, sagittal, and lambdoidal sutures being completely ossified, This skull is numbered 1029 in his collection, and is figured in his pamphlet. Other examples of the same kind are quoted. We append in his own words the explanation of the mode in which synostosis of the cranial bones may affect the shape of the encephalon and skull, only observing that the careful observation and sagacity shown by Dr. Davis in his pamphlet will, we think, add to his already high reputation:—

"The premature ossification of the sutures of the temporal regions, the sides of the coronal suture, and those surrounding the alisphenoid prevents the proper development of the anterior lobes of the brain, and impels the cerebral substance backwards. In the skull itself it gives rise, immediately, to a narrow, low, contracted frontal region, and, indirectly, to the expansion of the calvarium in a posterior direction, where the sutures are open and allow of cerebral growth. In fact, it influences the frontal region pretty much in a reverse manner to the presence of a permanent frontal suture, which facilitates the development of the anterior lobes of the brain, and thus occasions an increased size of the skull in this part. The premature ossification of the sagittal suture operates in a similar manner. It contracts the calvarium transversely, often occasions a *carina*, or ridge, in the situation of the closed suture (sometimes, as in this Neanderthal example, a depression), and compels the brain to grow and push outwards the cranial bones

at some other point, where there is less resistance—commonly in the frontal and occipital regions, so as to give rise to the *scaphocephalic* calvarium. But in cases in which the sagittal suture is not closed, the obliteration of the sphenofrontal, parietal, and squamosal sutures, which often carries that of the sides of the coronal with it, I am satisfied gives rise to an elongation of the calvarium. To this we may aptly apply Dr. Welcker's designation *dolichocephalus synostoticus*. This ossification has a material influence (sometimes with that of the sagittal suture, where it operates most potently, and sometimes without) in producing the dolichocephalism of the skulls derived from the long and chambered barrows of the ancient Britons; for it is a remarkable fact, not yet explained, that these skulls are found to be specially obnoxious to synostosis.

"In the application of these remarks to the famous Neanderthal calvarium, the first striking peculiarity that demands attention is the great magnitude of the frontal sinuses, and the enormous ridge of bone covering them, which are not affected by irregularity in the ossification of sutures. The size of these sinuses differs greatly in different persons, and to have them remarkably large is merely an individual peculiarity. Some living persons, among Englishmen, might be brought forward exhibiting this peculiarity. And in the example figured No. 1029 the same peculiarity will be seen to exist. Still it should be remarked that the unusual depression of the frontal bone above the superciliary ridges gives an exaggerated prominence to this part in the Neanderthal calvarium. This depression, only slightly diminished in degree, will be seen in the example figured. The fact of its being less is at once explained by the open state of the sutures surrounding the alisphenoid, all of which appear to have been prematurely ossified in the Neanderthal skull.

"It is precisely this early synostosis of the bones forming the temporal regions that has prevented the development and arching of the frontal bone, and given rise to the *great* depression and flatness of this bone, one of the most remarkable features of the Neanderthal calvarium. Indeed, it is the enormous superciliary ridge and the depressed forehead which have led so many excellent observers to the verge of a declination towards pithecoid forms. In these particulars, and in the great gap, separating it from the body, of the frontal bone, the Neanderthal calvaria may be said, at first view, to be suggestive of the crest of the Orang-outan. But there is no real resemblance between the two, for the latter crest is a solid buttress of bone, and does not correspond to the hollow superciliary ridge. It will thus be seen that there is nothing either of a simious character or that might not have been expected in the low forehead of the Neanderthal skull, in which the brain had to grow and expand under a plate of bone which appears to have been in a great degree in one solid piece. It was impossible to raise this plate of bone upwards; and the result, as will be seen, was a development in another direction. In the middle region of the calvaria, the sagittal suture being closed, the contained cerebral substance could only expand at the sides, in the situation of the squamous sutures; and here the Neanderthal calvarium seems not to lack development. But in the posterior region its greatest expansion took place, precisely because in this part was the open lambdoidal suture, which admitted of the growth of the brain. In the figures of this imperfect calvarium the superior occipital scale is seen to be bulged out, and the whole of what remains of the occipital bone is full and large—the compensatory result for the contracted anterior regions.

"The extreme length of the Neanderthal calvarium is given by Professor Huxley, and is eight inches, which is a very unusual length. In skulls in which such a length occurs it is most frequently the result of synostosis. That such is the case in the Neanderthal example there is not any doubt. This feature is the unequivocal effect of premature ossification of longitudinal sutures."

FROM ABROAD.—DISCUSSION ON HOSPITAL HYGIENICS, CONTINUED.

M. Lefort speaks with no little authority upon the subject of Hospital hygienics, for not only has he long paid most earnest attention to it, but he was selected by the Government to visit and report upon the condition of the Hospitals of England, Germany, and Russia. The present discussion, he observed, is one of vital importance, having the direct practical aim of enlightening the Administration with respect to the projected re-building of the Hôtel-Dieu, and of preventing a continuance of its sad celebrity as, perhaps, the most unhealthy of Hospitals. He maintained that a Hospital should not be constructed so as to fit a site that happened to be at liberty, but that the site should be chosen according to the requirements of sanitary considerations, and that the necessities of hygiene should not be sacrificed to mere architectural vagaries. Experience and good sense alike demonstrate that, when possible, Hospitals should be placed outside towns, and as far from populous centres as possible; and M. Lefort avails himself of the valuable report of Messrs. Bristowe and Holmes (contained in Mr. Simon's last Report to the Privy Council) in proof of the mortality after operations being great in proportion to the size of the towns in which the Hospitals are located. Economy in the purchase of sites is another reason which has determined such placement of several of the German Hospitals visited by M. Lefort. Even in large cities and capitals such position is still desirable, as scarcely a tenth of the applicants to Hospitals can be regarded as cases calling for instant aid, and for the remainder it is of far greater importance to augment the chance and speed of recovery than to render their admission somewhat less difficult. But, in fact, in large towns provision should be made for both classes of patients by means of two separate kinds of Hospitals. One of these, consisting of from 80 to 120 beds, and placed in appropriate quarters, should be appropriated to urgent cases, while another, of 400 or 450 beds, should be placed out of town. This latter should consist of small, isolated buildings occupying a large site, and containing in its garden summer Hospitals in the form of tents, in which certain urgent cases may be most advantageously treated—as the experience in the Crimea and the erection of similar tent-Hospitals in Russia, Leipzig, and Berlin demonstrate. In large towns a Clinical Hospital of from 300 to 350 beds for the purpose of instruction would also be required. To the more distant Hospital ready mode of transport might be easily provided; and although the visits of the patients' friends would be thus rendered somewhat less frequent, this would be amply compensated by a more probable and more speedy recovery. Even at the present Hôtel-Dieu, more than one-half the patients have been found to come from a distance. With regard to the size of Hospitals, it is to be hoped that we shall see no more built capable of containing from 600 to 1000 beds, 400 or 450 being, indeed, the extreme limit within which due hygienic requirements can be provided for; and, again, M. Lefort calculates that the increase of space must augment in geometrical progression, so that while for 100 patients 2500 square metres are required, 400 will demand 25,000, and 800, 100,000 square metres. After describing the general topographical conditions which should characterise a site chosen for a Hospital, he showed that of the Hôtel-Dieu constitutes an utter negation of these; while the estimate for erecting a stupendous edifice in this unhealthy locality amounts to 30,000 francs per bed, whereas Hospitals in approved sites have been built in England and Germany at the rate of 1000 or 1500 francs per bed.

M. Giraldès confined his observations to the projected Hôtel-Dieu, the construction of which had been determined upon without consultation with those capable of giving valuable advice. Architects left to themselves are incompetent to erect even a tolerable operating theatre, while the complexity of the requirements of a Hospital they are quite unable to provide for. The necessity of free exposure to the air, and the inefficiency of mere artificial ventilation, are now generally admitted, while the plan devised for the Hôtel-Dieu provides a number of pavilions mutually obstructing the ventilation and illumination of each other. Walls and angles are mischievously multiplied, and the beds are ill disposed in pairs between the windows. In England the beds are very low, and the windows opened at the top, securing ample ventilation without the injurious exposure of the patient to currents of air. Another most mischievous proposal on the part of the administration is the devotion of a ward of 40 beds to obste-

trical cases, as if the experience of Maternities and Lying-in Hospitals had not wholly condemned any such arrangement. The object is to raise a splendid edifice to correspond with the barrack about to be erected in the vicinity, and for that purpose a building of at least 6 0 beds will be required. M. Giraldès is of opinion that a Hospital should not contain more than 500, and that of these 350 should only be occupied at the same time, all the wards being left in turn unoccupied during a year, and submitted to effectual cleansing and exposure to the air.

M. Marjolin joined the preceding speakers in deprecating the present site of the Hôtel-Dieu for a new Hospital, it being one of the most unhealthy of Paris, and the soil being so infiltrated with the waters of the Seine that the construction of the mere foundations will absorb nearly the whole of the money allotted for the building. If built as proposed, it will prove to be the most unhealthy and the worst Hospital in existence. In a Hospital larger than from 350 to 400 beds all effectual superintendence becomes impossible, to say nothing of the mischief which ensues from great agglommeration of patients. How insufficient the present Hospital accommodation is in Paris, M. Marjolin has had ample opportunities of judging, numbers of cases being refused, notwithstanding their urgency.

M. Verneuil looked at the question as it affected the progress of science and clinical teaching. The much greater mortality incidental to large Hospitals has been only too well demonstrated, and the danger in the present case will be still more increased by the adoption of lying-in wards. The first condition of safety for lying-in women is their dissemination, and by observing this at the Lourcine, although the cases occur in subjects of the worst character, the mortality is infinitely less than in the larger Hospitals. Effectual clinical teaching cannot even be given at Hospitals situated like the Hôtel-Dieu and Charité, in the centre of Paris, for many excellent methods of treatment cannot be put there into force. Union by the first intention succeeds only quite exceptionally, and ovariotomy, Cæsarian section, excision of the joints, and various other great operations cannot be ventured upon, so certainly would the results prove fatal. And it is not merely with respect to the great operations that the bad hygienic conditions of the Paris Hospitals exert their influence. Even as regards slight operations, the Surgeon is often compelled to stand with folded arms, fearing lest his patients may be carried off by erysipelas, phlebitis, or purulent infection—that is, under some epidemic influence, which, like a destroying plague, sweeps away from the wards all who have undergone operations, whether great or small. Some of the eccentricities of French operative Surgery have, in fact, originated in the desire to elude this destructive influence produced by faulty hygienic conditions. In a well-constructed Hospital the wards should be small as regards the number of beds they contain, and large with respect to the space which separates these. Upper stories should be discarded, nor should there be wards opening into wards, constituting, in fact, but one large ward containing from 90 to 100 patients. Artificial ventilation can never supply the natural, while it not infrequently gives rise to bronchitis or pleurisy. If a thorough reform were brought about in Hospital construction, the whole face of Parisian Surgery would be changed within the next ten years. Far better would it be, as regards Surgical practice, to place the patients in dry and clean sheds or barracks than in the present Hospitals.

AN APPEAL.

The following case is one which we feel certain will enlist the sympathies of our Professional brethren. It is a history of continuous distress for years, and yet the record of it can scarcely be considered painful, as it brings out some of the best qualities of human nature. It is, in short, the old history of disease striking down a man in the vigour of life, leaving him totally dependent on female devotion.

A Mr. Thomas was at the age of 46 attacked by paralysis, and was thus at once obliged to relinquish practice. He recovered partially, and tried to get to work again, but was next suddenly attacked by paralysis of the tongue, and for four years, until his death, a few weeks ago, he never uttered a single word, although he retained his intelligence. For him, of course, now, nothing can be wanted, but we appeal to the Profession for help for his widow. For years she was obliged to act as nurse for her husband, and was thus prevented from earning anything whatever. Of her continuous, untiring zeal for him it is impossible to speak in too high terms; but now that, with broken health, she finds herself utterly without any means of support for the future, we feel sure she will not appeal in vain for help. During the life of her husband (himself quite incapable) there was a flimsy screen covering their mutual poverty—and yet they both suffered severely—as he received a little help from several charities; but now, literally, the widow has nothing. This case is well known to many members of the Profession, to Mr. Lockhart Clarke, to Mr. Saml. A. Law, Dr. Hughlings Jackson, Dr. Goldsbro, etc.

MEDICAL REPORT OF THE CASE OF GEORGE KING.

*** Since our leader on this case was in type, we have received the following report through the courtesy of Mr. Hawken, House-Surgeon of the Westminster Hospital. We do not gather from it any reasons for altering the opinions we have expressed:—

George King was admitted into this Hospital at 8.15 a.m. on October 1, suffering from well-marked symptoms of concussion of the brain. On further examination, I discovered bruises and raised lumps scattered over the head, chest, arms, dorsum of right hand, back, thighs, and front of shins; from the latter the skin was knocked off in various small patches on the front of the whole length of the tibia.

On the head alone were fourteen bruises,—three on the forehead, seven on the "top" of the head—and it is to these I wish particularly to call attention, because they were perfectly distinct and separate from one another—were about the size of a two shilling piece, and presented outwardly a perfectly definite circular form; on the back of the head were four, one of which was behind the left ear, and from underneath this the fracture commenced, and this bump bore precisely the same character in every respect to those on the top of the head. One of the bruises situated just over the occipital protuberance was much larger than the others, was not so definite in form, and had the appearance of just such a bruise as would have been occasioned by a fall.

On the second day after admission, the patient rallied a little, but never sufficiently to be thoroughly conscious; he then gradually fell away again, and symptoms of compression of the brain came on, from which he died five days after admission.

On making a post-mortem examination, I discovered a fracture of the skull, commencing about midway on a line drawn from the occipital protuberance to the meatus auditorius externus, commencing at this point and then splitting and passing off in two directions—one towards the foramen magnum, and the other on through the occipital bone to the petrous portion of the temporal bone. There was a small rupture of the lateral sinus just where it was crossed by the line of fracture, with a clot of blood rather larger than a hen's egg between the dura mater and skull. All the other internal organs were perfectly healthy.

Cambridge University Museum.—The inspectors of this Museum have just reported to the Senate that they found the collection in an excellent condition. The catalogue of the physiological series commenced by Mr. J. W. Clark has been continued by Dr. Drosier, who hopes to be able to complete it during the present academical year. A large addition has lately been made to the collection, including the skeleton of an adult male gorilla purchased of M. du Chaillu. A very interesting series of corals, starfishes, echina, and other invertebrate animals, collected and prepared by the late Mr. Lucas Bassett, has been placed in the Museum. It is hoped that these specimens will form the nucleus of a collection of invertebrata, which is much needed, and also will perpetuate the memory of their indefatigable collector, whose early death, in the prosecution of scientific research, was so much deplored by all who knew him.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF LINCOLN.

(Continued from page 442.)

THE LINCOLN COUNTY HOSPITAL.

Administration.

The Lincoln County Hospital was one of the special Hospital buildings of the period extending from 1760 to 1780. It was founded in the year 1769, and is of the same style of architecture as the Stafford Infirmary and the other institutions of a similar date. The external appearance of the Hospital is anything but inviting; it is dull, flat, inartistic, and now somewhat dilapidated.

Patients Annually Admitted.

The number of patients admitted into the Hospital annually is 730. As out-patients, there are admitted 850. In addition, about 1700 persons are casually relieved. The number of patients on the books in each of the last seven years were as follow:—

Years ending.	In-Patients.	Out-Patients.	Casually relieved.	Received trusses.	Received female supports.
Dec. 31 . . 1857	686	488	3570	121	9
Ditto . . 1858	679	410	2938	220	11
Ditto . . 1859	742	564	2049	116	9
Ditto . . 1860	340	580	2064	135	12
Ditto . . 1861	686	717	1787	121	10
Ditto . . 1862	779	895	1718	130	12
Ditto . . 1863	750	933	1180	120	10

The period of residence of each patient in the Hospital is noted in this Institution with much care. I have not before met with tables on this subject which have been so carefully drawn up, while I know of some Hospitals in which no information as to the days of residence can in any way be obtained. Of course, the administration of those institutions where it is not known for what length of time the patients have been accommodated and treated is of the loosest character, and it is refreshing to find a charity where this point of management is carefully attended to. The following table supplies the facts relating to residence for one year—1863:—

Length of Residence of each In-patient Discharged, for the Year ending December 31, 1863.

Period of Residence.	Discharged of						Total.
	Cured.	Relieved.	Un-relieved.	Made Out-patients.	Irregular.	Died.	
Less than 1 week . .	..	..	9	3	2	8	22
From 1 to 2 weeks. .	13	7	8	15	..	..	43
,, 2 ,, 3 ,, . .	34	11	5	29	2	4	85
,, 3 ,, 4 ,, . .	44	8	2	20	..	..	74
,, 4 ,, 5 ,, . .	49	14	2	21	..	3	89
,, 5 ,, 6 ,, . .	24	9	2	19	2	1	57
,, 6 ,, 7 ,, . .	21	15	1	9	2	..	48
,, 7 ,, 8 ,, . .	17	9	3	8	..	1	38
,, 8 ,, 9 ,, . .	27	69	4	20	..	1	121
,, 9 ,, 10 ,, . .	7	9	..	10	..	..	26
,, 10 ,, 11 ,, . .	9	36	1	6	..	..	52
,, 11 ,, 12 ,, . .	1	1	..	1	..	1	4
,, 12 ,, 13 ,, . .	2	5	..	2	..	..	9
,, 13 ,, 14 ,, . .	2	7	..	4	..	..	13
,, 14 ,, 15 ,, . .	3	3	3	1	1	..	11
,, 16 ,, 17 ,, . .	2	20	1	4	..	..	27
,, 17 ,, 18 ,, . .	..	..	1	2	..	..	3
,, 18 ,, 19 ,, . .	2	2	..	..	..	..	4
,, 20 ,, 21 ,, . .	..	1	..	..	..	..	1
,, 21 ,, 22 ,, . .	..	1	..	..	..	..	1
,, 22 ,, 23 ,, . .	..	1	..	..	..	..	1
,, 23 ,, 24 ,, . .	..	..	..	1	..	..	1
,, 24 ,, 25 ,, . .	..	5	..	1	..	..	6
,, 25 ,, 26 ,, . .	2	..	..	..	..	..	2
,, 26 ,, 27 ,, . .	..	2	..	..	..	..	2
,, 28 ,, 29 ,, . .	..	..	1	..	..	..	1
,, 32 ,, 33 ,, . .	..	2	..	1	..	..	3
,, 33 ,, 34 ,, . .	..	1	..	..	..	..	1
,, 40 ,, 41 ,, . .	..	..	1	..	..	..	1
,, 45 ,, 46 ,, . .	..	1	..	..	..	..	1
	259	239	44	177	9	19	747

Rules for Admission of Patients.

Any corporation, except a Board of Poor-law Guardians subscribing more than two guineas annually, may depute from their own body a Governor for every two guineas so subscribed.

Any person paying a legacy or a sum for an unknown benefactor, is entitled to the privileges of a contributor of such sum.

Every minister making a congregational collection of £5 is allowed to nominate one in-patient and two out-patients within one year from the date of such collection; two in- and four out-patients for a collection of £10, and so on in proportion.

Any parish subscribing, or giving a benefaction, may appoint one resident parishioner to act as a Governor for three years, if he shall so long continue to reside in the parish, who shall have the same privilege of recommending patients as a subscriber or benefactor of equal amount.

A subscriber of a guinea has a right to recommend one in-patient and two out-patients in the year; a subscriber of two guineas, two in-patients and four out-patients in the year; and so on in proportion. A benefactor of £10 at one time has an equal right with an annual subscriber of a guinea, and so on in proportion. Benefactions and subscriptions are reckoned jointly; and the Physicians and Surgeons have the power of recommending eight in-patients and sixteen out-patients.

Persons who recommend patients from distant places may send their cases drawn up by some Physician, Surgeon, or Apothecary (post paid), to which an answer is returned, by the House-Surgeon, whether and when they may be admitted.

Trusses and female supports are supplied gratuitously to such patients as are recommended by a subscriber or Governor, provided it be found necessary by one of the Surgeons, or the House-Surgeon.

The children of the poor are vaccinated gratis.

When there is want of room for in patients, those patients are first received whose cases will admit of the least delay; in cases of equal exigency, the preference is given, first, to such as live at the greatest distance; secondly, to those recommended by such subscribers and benefactors as have not recommended any in-patients within the year; and thirdly, to those recommended by the largest contributors. In the mean time the patients are treated as out-patients.

No persons are admitted who are able to maintain themselves and pay for their own cure; on this point the recommender is particularly desired to make inquiry. No one is admitted or suffered to remain as an in-patient who is capable of receiving equal benefit as an out-patient.

No woman with a child at the breast, or advanced in pregnancy; no child under six years of age, except in extraordinary cases, as fractures, or where cutting for the stone, or any other operation is required; no person having the small-pox, primary venereal disease, itch, or other infectious distemper, or who may be deemed incurable, is admitted an in-patient, or, if inadvertently admitted, is suffered to remain.

No person being a domestic servant is merely on that account excluded the benefits of the Hospital; but the Weekly Board determines how far such servant is a proper object for gratuitous maintenance, or what weekly sum should be paid for such patient by the recommender, or employer.

All patients are discharged at the end of eight weeks; but should the Physician or Surgeon certify there is a probability of cure, or considerable relief, the patient may still be re-admitted into the Hospital, but he or she must obtain a fresh recommendation.

Income of the Hospital.

The sources of income are various. First there are the subscriptions, which in 1863 amounted to £1042 5s. 6d. Next there are dividends on Consols, amounting in the same year to £58. The Cathedral sermon is a third source of income, amounting in some years to £110 or £120. The Hospital also has property in rents of houses and interest of money invested on mortgage. These, with the more casual receipts in the way of legacies, benefactions, and sundries, bring up the income to a little over £2600 annually.

Cost of Patients and Expenditure.

The average weekly cost of each in-patient is 13s. 5d. This sum includes the salaries of the officials, the cost of the household, including fifteen persons, and the cost of drugs for out-patients, but does not include either building expenses, repairs, furniture, or bedding. The actual cost of each patient is probably nearer 9s. per week, or the same as at the Sussex

County Hospital. As a general rule, the annual income is pretty equally balanced by the expenditure, but for the last three years the payments have been greater than the receipts. Thus, in the year ending 1861 the receipts were £2542 9s. 2d. against an expenditure of £3020 13s. 9d.; in 1862, £2985 17s. 11d. against £3124 17s. 9d.; and in 1863, £2625 4s. 10d. against £2820 4s. 11d.

Medical Staff.

Physicians—John Cooper Torry, M.D., and George Mitchinson, M.D. *Consulting Surgeons*—Mr. Snow and Mr. Hewson. *Surgeons*—Mr. Broadbent, Mr. Sympson, Mr. Lowe, and Mr. Brook. *House Surgeon and Apothecary*—Charles Harrison, M.D.

SANITARY CONDITION OF THE HOSPITAL.

The Wards.

There are fifteen wards in the Hospital, nine of which are appropriated to male, and six to female patients. The wards vary greatly in size, as will be seen by the subjoined table, in which the number of beds and the cubic space are given. The table has been drawn up for me by Dr. Harrison, the House-Surgeon, who has made the measurements and calculations with much care:—

Male Wards.

Ward A	1 Bed.	2317 c. feet.	
,, B	2 ,,	2970	,,
,, C	6 ,,	8660	,,
,, D	10 ,,	12578	,,
,, E	7 ,,	8833	,,
,, F	8 ,,	12357	,,
,, G	11 ,,	15540	,,
,, H	8 ,,	10533	,,
,, I	8 ,,	10743	,,

Female Wards.

Ward A	11 Beds.	15351	,,
,, B	8 ,,	13009	,,
,, C	10 ,,	13183	,,
,, D	2 ,,	2202	,,
,, E	6 & child's crib	8114	,,
,, F	1 ,,	1200	,,
15	100	137590	

The cubic space allowed to each bed will thus be seen to average rather more than 1375 cubic feet. There are no special wards, contagious cases not being allowed admission. Generally about two-thirds of the cases in the wards are Surgical and one-third Medical.

The drainage of the Hospital is not peculiar to the building, but is part of the drainage from the buildings on the upper part of the hill above the Institution. The sewage empties into a sewer discharging into a pool called Brayford, which in its turn pours into the river that runs across the city, the Withem. The Hospital may be considered as very fairly drained, the fall being naturally good.

The water supply is from the water works company: the water is carried into a large cistern at the upper part of the house: it is of fair quality and sufficient.

The ventilation is entirely natural; no attempt is made to introduce any of the numerous "methods" for exchange of air: even Arnott's valve finds no place. The Hospital is, at the same time, miserably constructed for carrying out natural ventilation effectually, for the windows are small, and through and through currents of air in every direction of the compass cannot be ensured.

The warming is by the old-fashioned fire-grate; no other system of warming has ever been employed.

The waterclosets are situated at a short distance from the wards; there is one closet on each floor. The construction of the closets would admit of much improvement. Outside the Hospital there are closets for convalescents.

There are two *bath-rooms* on each side of the house; but the arrangements for baths, by the side of modern improvements, are very indifferent. Off the wards there are small sculleries with sinks; the patients use these sculleries as lavatories. In this particular again the plans are very defective. The hot-air bath has not been introduced.

The bedsteads are of iron; no curtains are used.

The floors of the wards are either of deal or of plaster. Recently two of the plaster floors have been taken up and laid down in wood, but still plaster floors are allowed. I mean by the plaster floor, the old-fashioned, grey speckled, pipe-clay looking floor, such as is met with in old-fashioned country houses, but is now falling entirely out of fashion. The plaster floor is very much unfitted for the Hospital; it is cold to the feet of the patients when they have to get out of bed, and it causes a peculiar coldness of the apartment altogether; it makes the room all wall. At the same time it is easily kept clean by washing, and it sweeps very cleanly. If any plan could be invented by which pine boards could be made as impermeable as plaster without being rendered slippery from polish—if, in fact, the boards could have given to them a face like plaster, the best possible surface would be obtained. The floors of the Hospital are cleaned by simple washing and scrubbing. As a general rule one or more wards are kept empty; while unoccupied, the floor of the ward is thoroughly cleansed, and then the apartment is well fumigated with chlorine. The fumigation over, a large fire is lighted and is kept up until the whole room is perfectly dry. The ward thus prepared for the reception of patients is held in reserve until required, an arrangement as simple as it is excellent.

The Nursing System.

Six nurses are regularly employed, four of them being on the male and two on the female side; there are also two, or if necessary four, night nurses. On an average there is one nurse to twelve patients; but the system altogether requires reform urgently. The night nurses are old women living in the city, who often have been at work all day before they come to the Hospital—worn out before their most important labours commence: their night duties are performed with the most scrupulous observance of the rules laid down by that eminent authority Mrs. Gamp—that is to say, they sleep as much as they can, and leave the sick as long as is possible to the care of their useful sister Nature. In cases where the patients are seriously ill, or where special watching has to be maintained, the House-Surgeon is in the habit of visiting the wards at all hours of the night. That he may not find his weird watchers slumbering, they strew cinders along the passages, that he may crunch them on his way, and use other and similar tricks to raise the necessary alarm and report who is coming. A worse arrangement could not be imagined, and I am happy to report that it will not exist much longer. A new system of nursing is about to be adopted in which there will be one head nurse, with a competent staff under her, the nurses taking the day and the night work alternately.

In provincial Hospitals a reform in the nursing system seems to me to be imperatively demanded everywhere. There is as yet no rule in respect to the one question—"How many patients may be safely entrusted to the care of one nurse?" In some Hospitals one nurse takes charge of twelve patients, in others of twenty, and in one case that has been before us in this history of *thirty-seven*. It requires to know something practically of the art of nursing the sick, as well as of the art of physic, to appreciate the whole bearing of the question proposed. In the absence of a good nurse the best Medical skill is so much learning thrown away. Give the command of the fire of the patient's room and the window—*i.e.*, the warmth and the air—to a nurse, and add afterwards the command of the food, and where shall stand the first Medical talent of the land if the hands into which these essentials are delivered be guided by an ignorant, an idle, or an obtuse brain? I cannot conceive how in severe cases of illness one nurse can attend to so many even as six patients and do her duty. How then, when there is one to twenty in the long night, when the most wakeful eye can scarcely forbear to sleep? It must be a mere farce such nursing—a farce thoughtless and cruel. Here would be a good practical subject for one of the Medical societies to inquire into and report upon authoritatively for the guidance of Hospital governors:—How many sick persons can one competent nurse attend to properly? A mass of useful evidence admits of being collected on this point, and there are not a few Physicians and Surgeons who would be only too happy to expose the evils at present prevailing if, by such exposition, they could see the way to an effective measure of improvement, and to uniformity of action.

The Diet of the Hospital.

The dietary consists of the following varieties, Ordinary, Low, Milk, Full, and Fancy Diet, except when otherwise expressly directed by the Physician or Surgeon in attendance.

Ordinary Diet.

	Breakfast, 8 o'clock.	Dinner, 1 o'clock.	Tea, 5 o'clock.
	M. F.	M. F.	
Su		Boil'd beef, with veg'ables 6 oz. 4 oz.	
M		Soup, & cold meat warmed 1 pt. ¾ pt.	
		Or fresh meat .. .. 4 oz. 2 oz.	
		Pudding, flour, rice, sago, or tapioca.	
Tu	Tea or	Roast mutton, & vegetables 6 oz. 4 oz.	Tea & butter
W	coffee 1 pt. ¾ pt.	Boiled beef, and vegetables 6 oz. 4 oz.	as at
Th	Butter ¾ oz. ½ oz.	Soup, & cold meat warmed 1 pt. ¾ pt.	Breakfast.
		Or fresh meat .. .. 4 oz. 2 oz.	
		Pudding, flour, rice, sago, or tapioca.	
F		Boiled mutton, & veg'ables 6 oz. 4 oz.	
Sa		Roast beef, and vegetables 6 oz. 4 oz.	

Bread and salt at each meal without excess or waste.

The allowance of meat is calculated as cooked, and without bone.

Patients under 14 years of age shall receive in quantity of diet the same as the Females.

Low Diet—Tea or coffee (as above) at Breakfast and at Tea; light pudding for Dinner.

Milk Diet—Milk, pottage, or boiled milk (as above) at Breakfast and at Tea; pudding, flour, rice, sago, or tapioca at Dinner.

Full Diet—Cheese or meat twice daily.

Fancy Diet—Whatever the patient is disposed to ask for, such being approved of by the Medical attendant.

Spirits, Wine, Porter, Beer—As ordered by the Medical attendant.

Use of Alcohol.

The quantity of alcohol consumed on an average by the patients of the Hospital has not been calculated, and data do not exist at present on which to make a safe calculation. The supply, however, is liberal.

Summary of the Sanitary Condition of the Hospital.

The sanitary condition of the Lincoln Hospital is unquestionably very defective; the house, in fact, is founded on a wrong principle, according to our present knowledge of the requirements of a house for the sick. The wards at the upper portion of the building are altogether out of character, and are amongst the worst I have ever seen. The prevailing evils are, I believe, generally admitted; but the question here, as at Birmingham, is,—What shall be done? Some would try and improve the present building; others would rebuild. I cannot hesitate a moment in saying the logic lies with the last-named reformers. There is but one remedy for the Lincoln Hospital, and that is to pull it down stick and stone, and recast it on a new basis. No kind of patching can mend a building that stands on foundations which are unsuitable in arrangement; no alterations in the wards can make them convenient, or supply them with the essential necessaries. If more money were expended on such attempts at improvement than would build a new Hospital, the money could only be lost, because day by day the radical errors of construction would come out the more and the more strikingly as new and better Hospitals sprang up in contrast in other parts of the kingdom. At present the wards of the Institution are free from any attempt at decoration; they may well remain so, for to render them artistic and cheerful would be impossible. In a word, it is time every Hospital erected during last century were razed to the ground. A hundred years is quite long enough for any such a building to stand, and no new building should be laid with a view to preservation beyond that limit. It is not a Norman castle that is wanted for the sick man, but a pavilion that can easily be run up and as easily taken down. In Lincoln there is an opportunity for improvement in Hospital construction which surely will not be lost. A pavilion Hospital for Lincoln, that is the desideratum.

PRACTICE OF THE HOSPITAL.

The diseases treated in the Lincoln Hospital are chiefly chronic. Chronic rheumatism is very common, and scrofulous diseases of the bones are constantly being presented. Cases of secondary and tertiary syphilis are also numerous. The acute diseases are in the main acute rheumatism and pneumonia. The Surgical field of observation is not very extensive; it is yielded by accidents occurring in agricultural pursuits and in the foundry works, which latter, as we have seen, are now becoming of vast importance in the commerce of the city. At the present time no peculiar local disorder is observable in the practice of the Institution. Ague, if it were ever an endemic, has ceased to such an extent as not to attract special notice, and calculus is not unusually prevalent.

Surgical Operations.

Statistics of Surgical operations with results are now carefully kept by Dr. Harrison. The facts yielded in the years 1862 and 1863 are subjoined:—

Amputations, 1862-63.	Disease.	Accident.	Total.	Cured.	Died.	Total.
Thigh	5	1	6	5	1	6
Leg	3	1	4	3	1	4
Arm	3	2	5	4	1	5
At shoulder-joint	1	..	1	1	..	1
Ankle (Syme)	1	..	1	1	..	1
„ (Pirogoff)	1	..	1	1	..	1
	14	4	18	15	3	18

	Cured.	Died.	Total.
Strangulated hernia	2	2	4
Tracheotomy	..	1	1
Puncture of bladder	..	1	1
Extravasation of urine	2	1	3
Lithotomy	2	..	2
Lithotrity	3	1	4
Ovariotomy	..	1	1
Removal of eyeball	1	..	1
Excision of elbow	1	..	1
Ligature of brachial	1	..	1
„ external iliac	..	1	1
Paracentesis thoracis	1	..	1

In addition there are some minor operations, which were not attended with mortality.

Amputations below wrist and ankle-joints	33
Cancer of lip	8
Fistula in ano	10
Stricture of urethra	5
Hydrocele	9
Tumours	20
Club-foot	2
Fistula lachrymalis	3
Hare-lip	7
Evulsion of toenail	10
Phimosis	3
Paraphimosis	1
Nævus	2
Hæmorrhoids	1
Varicose veins	1
Ligature of small artery	3
Ganglion	1
Ranula	2

Mortality of the Hospital.

The mortality of the Hospital for the last few years has been exceedingly low. On referring to the rate of mortality, by a comparison of patients admitted during the year, and of deaths occurring in the Hospital, I find the mortality to be 2·98 per cent. Of the deaths recorded, several were from pyæmia: in 1860 there were 2; in 1861, 3; and in 1863, 1 death from this disorder. By Dr. Farr's method of calculation, the mortality of the institution in 1861 is rendered as 37·29 per cent.—a rate somewhat higher than in the Hospital at Stafford, but much lower than in the Hospital at Brighton.

Administration of Chloroform.

Chloroform has been administered in the Hospital at least 1100 times. The mode of administration is by pouring the fluid on a silk pocket-handkerchief, and placing the handkerchief lightly over the nostrils and mouth, giving room for air. Up to the present time there has been no fatal case after the administration of this narcotic.

Points of Practice.

No new line of inquiry in practice has been been extensively carried out in the Hospital, but some very interesting cases have been noted during the past few years. In the removal of innocent tumours Mr. Sympson has carried out the recommendation of Mr. Ferguson to the effect that no skin should be removed, even when the tumours are very large. In July last Mr. Sympson dissected from the outer aspect of the arm of a woman 46 years old a fatty tumour weighing nearly three and a-half pounds; it had commenced growing near the insertion of the deltoid thirteen years ago, and had increased rapidly during the last two years. On the patient's admission it extended from the margin of the deltoid to the bend of the elbow, below which it hung pendulous for a couple of inches, In the operation no portion of the integuments, though they were extremely attenuated, was removed. Afterwards, sloughing occurred to a very trifling extent, and when the woman

left the Hospital in the middle of August with the wound almost healed, the stretched portion of skin scarcely at all overhung the surrounding normal integument. The case illustrated well the correctness of Mr. Ferguson's plan.

REVIEWS.

Manual of Instructions for the Guidance of Army Surgeons in Testing the Range and Quality of Vision in Recruits, and in Distinguishing the Causes of Defective Vision in Soldiers. By Deputy Inspector-General T. Longmore, Professor of Military Surgery at the Army Medical School. London. 1863. Pp. 74.

This book was written at the request of the Director-General of the Army Medical Department to supply a want rendered urgent by the modern improvements in rifled firearms. In the words of the author—"The general use of the rifle in the army has rendered a high degree of visual accuracy on the part of the soldier for whom these arms are destined a matter of imperious necessity. The quality of eyesight which was good enough to meet the demands of the old smooth-bore musket, is by no means sufficient for a weapon which has a range of nearly a thousand yards, and which, to be of service, demands that the soldier who uses it shall have a clear perception, and shall correctly judge the distance, of any object of the size of a man in any position up to that extent of range. It becomes the duty of the Medical officer to determine whether the power of eyesight in a recruit is adequate to meet the new demand thus made upon this function by the combatant officer. The determination of the question is readily arrived at if the vision be normal, or if it be abnormal to an extreme extent; but there are many intermediate degrees of defect, and many peculiar complications, which require no little nice discrimination and accuracy of observation in practice, to distinguish and define. These difficulties become increased when there is either an unwillingness to assist the Surgeon, or positive attempts to deceive him, on the part of the person under examination."

Very important questions also arise not only with regard to the recruit, but with regard to that costly article of manufacture, the trained soldier, who may be found to be incapable, from visual defect, of using the rifle at long ranges; who may be suffering from serious disease of the deep-seated tissues of contracted in the execution of his duty; or who may be endeavouring to obtain his discharge from the service by simulating such maladies. The detection of the actual condition of vision under these varying circumstances requires much care and attention even from those who are familiar with the method of setting about the examination: it is not too much to say that it requires more knowledge of this special subject than it is reasonable to expect from army Surgeons in general. To them this little book of Professor Longmore's will prove invaluable. He has performed with rare ability the difficult task of condensing into short compass a very extensive and complicated subject; and he has done it with a simplicity and clearness which will render it easily intelligible to any one of ordinary education.

The busy General Practitioner, equally with the Army Surgeon, will find it useful as containing the gist of what would otherwise cost him much laborious reading, and as giving a summary of the most advanced knowledge of the optical defects of vision, and the use of the ophthalmoscope. Dr. Gibson could not have selected a more competent man than Professor Longmore for the performance of this difficult task. Will it be possible ten years hence to find such men in the army, or will they be altogether replaced by "Acting Assistant-Surgeons?"

Ueber die Verschliessung des Schlundes beim Sprechen. Von Dr. Gustav Passavant.

On the Closure of the Throat in Speaking: a Physiological Study. By Dr. Gustav Passavant. Frankfort. 1863.

By repeating and extending the experiments of Czermak and others, Dr. Passavant has arrived at somewhat more exact conclusions than were heretofore entertained respecting the action of the soft palate during speech. Czermak injected water into the back part of the nostrils, and found that no act of swallowing occurred so long as a vocal sound—the nasal *m* and *n* excepted—was maintained, but that this act immediately ensued when the vocalisation ceased. The vowel sound *a* implies the least perfect closure. Dr. Passavant, using milk instead of water, and letting every sound pass into a high-pitched *a* (during which a view can be obtained of the pharynx, and the closure is complete), found that, for the most part, there had been no escape of the milk, though sometimes it had trickled into the throat to a slight extent, even when the sound had been quite free from nasal tinge. The fluid itself frequently caused an evident contraction of the palate. It appears, therefore, that a perfect separation of the nasal from the oral cavity is not essential to normal speech. The same result followed from other experiments, of which the most decisive was the fixing a portion of flexible catheter behind the palate, by which means a communication between the two cavities was maintained. A calibre of 6‴ caused the voice to have a nasal sound; a calibre of 4‴, however, was compatible with perfect intonation of all the letters except *b*, *p*, and *t*, in which the tongue or lips afford a considerable resistance. In singing, also, when no resistance is offered to the exit of the air through the mouth, there is no nasal sound, although the cavities are not separated. In respect to the mechanism of the closure, Dr. Passavant observed that the edge of the soft palate is never in contact with the pharynx, and by the examination of a case of cleft palate he convinced himself that the superior constrictor of the pharynx plays a part in the process. This muscle, the fibres of which are collected posteriorly into a bundle in front of the atlas, contracts during speech, and forms a projecting ridge at the above-named spot, with which the upper surface of the soft palate, raised by the levator palati muscle, comes into contact, while its free posterior border hangs downwards and diverges considerably from the pharynx. The superior constrictor, therefore, as well as the levator palati, is an essential factor in normal speech.

Further, Dr. Passavant remarks that the approximation of the two halves of a cleft palate during speaking, swallowing, retching, etc., is effected also by means of the superior constrictor, and that the part played by the palato-pharyngei is entirely subordinate or null.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

October 18.

How to spend £100,000? This question gave rise to a very important discussion in the Health Committee of our Town Council a short time since. Whether this amount, which the Council are empowered to spend, under certificate from the Quarter Sessions grand jury, upon the sanitary improvement of our courts and alleys, should be spent as fast as the engineer could prepare plans for the requisite alterations, or whether, as the Officer of Health suggested, the interest alone should be used up? It seems that this borough has the misfortune to include some three thousand courts, and that the plans laid before the Council for the alterations required in twenty-nine of these involved an outlay of £3500, so that at this rate more than three times the amount voted would be necessary to renovate the courts of the whole town. If this be the case the expenditure of the interest alone would necessitate the lapse of about seventy-five years before the whole town could be gone over, so that I hope the Council will, just for this once, give heed rather to the engineer than the Medical officer, since it is, I think, probable that the sanitary improvement produced by a free expenditure will save more lives, and also, by improving the health of the poor, diminish the poor-rates more than could be expected from a more economical administration of the money.

As another item of sanitary improvement, I am glad to say that the new Fever Hospital for the parish is at last finished, and is every way a vast improvement upon the old one, which had become far too small for the demand made upon it.

A case of alleged starvation, investigated by the Deputy Coroner a short time since, illustrates the value of Medical evidence, and is, I fear, simply a specimen of a vast number of similar cases. A man, aged 68, who earned £1 10s. per week when in full work, and who had been in employment until within a fortnight of his death, went to a low lodging-house and took an empty room. For a fortnight, the man and his wife had no bed to lie on. At the end of that time, they got a bundle of straw, but they had no covering. After another fortnight, the man lost his work,

but was going about till two days before he died. No doctor attended him. His wife actually took her dead husband's trousers and drawers (the latter from the body itself), and sold them at a rag-shop for food, as she said—more likely for drink, since she was found next morning lying drunk among the straw by the body, brandishing a "belaying-pin" at every one who came near. When the Coroner's beadle visited the room, he found the corpse upon the floor, a brick under the head, and no covering but an old shirt and some broken straw. Presently came in the widow, in a state of beastly, foul-mouthed drunkenness, declaring that she would "take his body to-night, and sell it for food for the dogs." A post-mortem examination showed that the immediate cause of death was pneumonia.

The condition of the poor is, I fear, somewhat deteriorating, in consequence of the increasing distress in this district. The pressure on the Hospital accommodation for this parish is just now very great, and instead of its being possible during the summer and beginning of autumn to close some of the wards, as has usually been the case, they have been, and are still, both in the Medical and Surgical departments, unusually full. The amount of fever is also becoming a very serious matter. There are at present about 330 patients in the old and new Fever Hospitals of the parish, and of this number, over 300 are suffering from typhus. I am informed that the patients do not come from any one district, but that all the poor and dirty parts of the town furnish a tolerably equal proportion of cases. There does not appear either to be any reason to suppose that any appreciable proportion of these cases are strangers passing through the town. The disease appears to originate here. At present the prevalence of fever is mainly among the poor; at the institution in Netherfield-road, where only paying cases are received, there is not more than an average number of patients, and I do not hear of many cases existing among well-to-do families.

I saw lately a man from Walton Gaol who had mutilated himself in a very complete manner, having cut off the penis and the whole of the scrotum, with its contents. He suffered some inconvenience from the constriction of the divided portion of the urethra, but his general health did not appear to have been influenced. He was an interesting person in a pathological point of view, also, from the fact that his left knee joint had been excised by Mr. Fergusson, at King's College Hospital, about five years since, if I remember rightly. This operation was performed in consequence of the knee having become fixed in a completely flexed position—the result of disease of the joint. The limb was about two inches shorter than the other, and the circumference of the thigh and the leg below the knee was less than that of the sound limb; but with the aid of a high-heeled boot he walked very well.

In my last letter but one I mentioned a case in which the cure of an aneurism at the root of the neck had been attempted by ligaturing the carotid and the subclavian arteries. At first it was hoped that the aneurism was in process of cure; but as the pulsation returned another plan was tried. A puncture was made into the aneurism with a very fine trocar, the canula was left in the puncture, and an iron wire, which nearly filled the whole of its calibre, was passed through it into the sac. The wire was pushed on and on until twelve yards of it had been passed into the interior of the aneurism. The immediate effect was to render the tumour firmly solid. Subsequently a good deal of inflammation and suppuration took place around the tumour, and a low form of inflammation of the right lung set in and proved fatal.

The most interesting fact revealed by the post-mortem examination was, that the sac was nearly filled by a fibrinous mass in which the coils of the wire were included, the opening into the aneurism (which involved the origin of the innominate artery, and part of the aorta close to it) being all but closed by this coagulum. This case is of great importance as showing how firm a clot may be produced by the presence of the wire, so that had the aneurism not been situated so close to the heart, it appears probable that the patient would have been not almost, but quite cured. I hope that the full details of this most interesting case may be published.

Your readers may remember the action brought last year against Messrs. Hakes, Chalmers, and Ellis Jones by a man whose femur had been broken in an unsuccessful attempt to reduce an old-standing dislocation. The plaintiff was nonsuited, but the legal expenses incurred by the defendants were considerable, and the plaintiff, on whom all the costs ought to have fallen, was a poor man and utterly unable to pay them. The three Surgeons would thus have been considerably out of pocket had not the Committee of the Northern Hospital come to the decision that these expenses should be defrayed out of the Hospital fund. The precedent thus established is a most important one, and will, I hope, help to establish the principle, that so long as the Medical officers of a Hospital do their duty they are entitled to claim all the help that it can give them should the performance of their duty place them in circumstances of difficulty.

IRELAND.

Dublin, November 2.

Following the plan I have adopted in previous years, I shall, in endeavouring to send you some account of the opening of our Medical Schools for the present Session, observe the order in which the first lecture or inaugural address has been delivered in each.

Your readers are doubtless aware that with us the Winter Medical Session commences about a month later than in London. The earliest introductories properly so-called were this year delivered on October 31 in the Adelaide Hospital, at 11 o'clock, by Dr. James F. Duncan, and in the Ledwich School, at 12, by Dr. W. Moore. The business in the Royal College of Surgeons was entered on without any formal introductory.

Dr. Duncan, having feelingly alluded to the untimely death of his former colleague, the late Dr. Mayne, proceeded to point out a remarkable difference existing between the Medical and other professions, in the fact, that neither as a part of general education, nor as an avenue to social rank and distinction, had the practical study of the former found favour. On the other hand, many persons enter the army who never contemplate buckling on their armour in actual warfare, while others eat their dinners in the inns of court who are never subsequently seen in the hall of justice with a bag of briefs. Still, he could not help thinking that a more general diffusion among the community of a knowledge of the true principles of Medical treatment would be attended with beneficial results, not merely in emergencies which might happen in remote quarters of the globe, but in cases of sudden and severe illness at home, when no skilled assistance might be available. The learned lecturer went on to describe the advantages and disadvantages of the four modes of studying pathology and therapeutics—viz., by reading, attendance upon lectures, clinical instruction, and grinding, and showed that he who would be perfect must combine them all. In conclusion, he alluded to the progressive nature of Medical science, and earnestly urged upon the students present the vast importance of industry and diligence in the acquisition of the knowledge necessary to enable them properly to discharge the responsible duties which would hereafter devolve upon them.

Dr. Moore, in a very eloquent and well-delivered address, dwelt at considerable length upon the importance to the Medical student of an elevated standard of education, and of the acquisition of general knowledge. He showed that it is not easy to define the respective limits of "general" and of "Professional" education, and stated his conviction that the time apparently gained by shortening the general educational course is too frequently lost, from the mind not being sufficiently matured to undertake special Professional study. He also alluded to the grievances complained of by members of the Profession anxious to embrace the military service, in consequence of which many vacancies remained unfilled, and numbers who had long been Surgeons in the army were resigning their appointments. Having alluded to the rescinding, to a great extent, of the privileges conferred by the Warrant of 1858, Dr. Moore continued:—

"No one can tell how soon the horrors of war may be entailed on us, both by sea and land, yet our authorities, so far from encouraging, have absolutely discouraged men of education from joining their service, by rendering their position disagreeable and abhorrent. Skilful men have been so affronted by regulations and warrants, by combatant and non-combatant distinctions, that they refuse to enter the service *in toto*, or leave it in disgust. It must be some consolation for a wounded soldier or sailor to feel that under any circumstances a brave heart and educated hand will dress his wounds, or soothe his path towards the dark valley; and this is well exemplified in the Surgeon who, with a steadfast and humane purpose in view, in the midst of the fiercest fire, is intent on saving the lives of those committed to his care. As a verifi-

cation of this fact we have only to look at the monument at Netley to no less than sixty Surgeons who lost their lives whilst gloriously performing their duty during the Crimean war. And in a recent Gazette you may read how her Majesty has been graciously pleased to signify her intention to confer the decoration of the Victoria Cross, for acts of bravery in New Zealand, on Assistant-Surgeon William George Nicholas Manley, who, during the assault on the rebel pah, near Tauranga, New Zealand, on April 29 last, most nobly risked his own life in his endeavour to save that of Commander Hay, afterwards volunteering to return and look after more wounded, and being one of the last to leave the pah. Also on Assistant-Surgeon William Temple, who, I am proud to say, was educated in this metropolis, and with whom I had the honour of being acquainted. This latter gentleman, during an assault on the enemy's position at Rangiriri, in New Zealand, on November 20 last, crossed the Maori Keep at a point where the enemy had concentrated their fire, with a view to assist the wounded at the imminent peril of his own life. Thus the highest distinction in the gift of the Crown for gallant deeds has been won by two heroes in the discharge of duties which, in the eyes of the present administrators, meet with but little appreciation."

In the associated Richmond, Whitworth, and Hardwicke Hospitals, the introductory lecture was delivered by Dr. Robert Adams, University Professor of Surgery, and Surgeon in Ordinary to the Queen in Ireland. Having referred to the improvements recently made in the combined, or "House of Industry," Hospitals, and to the erection in their immediate vicinity of the handsome building to be opened in a few days as the "Carmichael School of Medicine," Dr. Adams dwelt on the necessity of the practical study of the several branches of Medical science, quoting from an introductory lecture by Dr. William Hunter, and citing the words of Bichat, that "if we wish to become Anatomists, we must dissect; if physiologists, we must perform experiments; and if Physicians, we must attend patients in Hospitals and open the dead. This is the three-fold course, which, if we omit to follow, we cannot possibly become either Anatomist, Physiologist, or Physician." He next argued that Anatomy, Medicine, and Surgery are not made so much a part of the general education of youth as they should be. The student of law would at once admit this. So would the clergyman, who, in some remote district, had been suddenly called to the bedside of a parishioner suffering from illness, while he was ignorant of any of the simplest means of alleviating. But on other grounds, too, the learned lecturer would urge upon all the study of Anatomy, Medicine, and Surgery. He believed that many of the great discoveries in Medical and Surgical science had been foreshadowed in the Bible, and that the circulation of the blood had been described by King Solomon thousands of years before it had been demonstrated by Harvey. In like manner he believed that a graphic description of delirium tremens might be found, conveyed in a very few words, in the 23rd chapter of the Book of Proverbs. In conclusion he would express his conviction "that the Book of Nature and the Book of Inspiration should be studied together—the one with reference to the other. And I will add, that if I cannot persuade the non-Medical student to overcome his dislike to the laboratory of anatomy, or to 'walk' the wards of an Hospital, and thus to read practically the Book of Nature, still I hope I may be able to prevail on the Medical student, at least, to read deeply and well the Book of Inspiration. From the united study of these two volumes he may expect to see emanate a bright ray of that true science which faithfully points out to him his course—a science which may prove a lamp to his feet and a light to his path."

King and Queen's College of Physicians in Ireland.—At the annual meeting of the above College, held on St. Luke's Day, 1864, the honorary fellowship of the College was conferred upon the Rev. William Reeves, D.D., M.B., LL.D, Secretary to the Royal Irish Academy. This is the first time that an honorary distinction has been conferred by the King and Queen's College for purely literary as apart from professional merit, a fact which the more strongly marks the high estimation in which the College holds Dr. Reeves's numerous and valuable contributions to literature and to archæology. On the same day, Dr. Aquilla Smith was elected an honorary Fellow, having vacated his fellowship on his appointment as King's Professor of Materia Medica and Pharmacy in the School of Physic.

GENERAL CORRESPONDENCE.

REPORT ON CHEAP WINES.

By our Special Empirical Commissioner.

[To the Editor of the Medical Times and Gazette.]

Sir,—Many months ago you did me the honour to give me a "commission" to examine and report upon the cheap wines which the public are now able to procure through Mr. Gladstone's remission of the wine duties, and through the enterprise of various merchants who have imported new kinds of wine, unknown to our fathers. My instructions were to report how far these wines may be useful to the Medical Practitioner as agents in the restoration of health, and how far they are fit to appear at our tables as part of our ordinary diet. At the same time I was furnished with the work of Mr. T. G. Shaw on "Wine, the Vine, and the Cellar,"(a) and with another by Mr. James L. Denman (b), in order that I might judge of the merit of the books, and derive from them any information available. Each of these books is good; and I cannot too strongly urge the Medical Practitioner who wishes to keep pace with the age to add one or both of them to his shelves.

It is most especially the interest of the Medical Practitioner who lives amongst a luxurious town population to have at his fingers' ends a knowledge of the character and properties of the chief wines of the day; and this is a branch of knowledge that the Practitioner, even in the most primitive and rural districts, need not despise. We must take people as we find them. In large towns there are always a number of wealthy persons whose only recreation is their dinner table, and who would have a very mean opinion of their Medical attendant if he showed himself not well acquainted with a gentlemanly style of living. I recollect, years ago, when beginning practice, how I was "bowled out" of the confidence of a very good family by Dr. ———, whom I met in consultation. Was this because I did not know my Profession, in the ordinary sense of the term? I hope not. I was certainly not below the average, and amongst other things was a fair stethoscopist. Dr. ——— was one of the almost extinct specimens of a Hospital Physician, who repudiated that instrument. "With all their nonsensical auscultation," he said of his colleagues, "they can't *treat* pneumonia so well as I can!" It did not seem to strike him that the stethoscope was for diagnosis, and not for treatment; that, however skilled in treating disease, he might as well make sure first what the disease was that he was treating. This by the way; but Dr. ———'s real *forte* was his knowledge of cookery and wines; and before that my light was soon put out. I took the lesson, and can conscientiously say that I have never since neglected an opportunity of becoming acquainted with good wine. I have bought and drank, not for gratification of the palate, but for real Professional study, specimens of most of the noted varieties of wine, and without pretending to any extra connoisseurship, hoping that I have gained information useful to my patients. *Object lessons* on wine are the only real way of learning.

Certainly there is no reason why those wines which are abused by the gourmand in order to enable him to eat *too much*, may not be used by the Medical Practitioner to help patients who have a difficulty in eating *enough*. This is one use of wine which I think is neglected by us.

A large proportion of the patients who come to most of us do so for some failure of nutrition. Be it in town or country, I will undertake to say that the number of invalids who require tonics at once is far greater than that of those who need anything like depletion. There are the cases of "anæmia," "anorexia," and "debility," which figure by scores on the out-patient books of all the Dispensaries that I have ever been acquainted with,—there are the agueish and the neuralgic affections of the poor, and the floodings and miscarriages, and uterine enlargements and displacements, and illnesses caused by protracted suckling amongst poor women. And in all of these cases some refresher to the appetite is needed. Besides, be an illness what it may, most Practitioners finish off their patient with a "light tonic," with or without a box of pills, and very good practice it is.

Well do I recollect in my youth, how infallibly the pupils and dispensers of the Practitioner to whom I was apprenticed

(a) Longman. 1863. 8vo, pp. 506.

(b) "The Vine and its Fruit, more Especially in Relation to the Production of Wine." Longman. 1864. pp. 346.

could tell the progress of a patient in a severe illness by the quality of his medicine. First came the heavy artillery,—the dose of calomel, with black draught, tartar emetic, and leeches or V.S. Then a lighter fusilade—with nitrate of potass, liquor ammonniæ acetatis, nitric ether, and the like. But the "light tonic" came at the last like a messenger of mercy to pick up the prostrate sufferer after the battle.

Now, what is a light tonic? What, Medical reader, is your own favourite "mixture" or "draught" for a convalescent, to enable him to enjoy the first mutton chop that you allow him? Suppose we say ten minims of aromatic sulphuric acid, half a drachm of tincture of gentian, the same of syrup of orange, fifteen minims of nitric ether, and *quant. suff.* of water. A very palatable draught. A little dilute acid, a slight bitter, a small quantity of some aromatic, a little alcohol, and some fragrant ether. But this is just the mixture or draught that Nature has brewed ready to our hands in the fragrant and appetising wines of France and Germany.

Surely if a patient has two shillings to spend on something that shall make him eat, he will be far more grateful to us if we provide him with a bottle of wine than if we give him a "mixture." I have often prescribed a cheap Chablis at about 1s. 6d. a bottle, sold by E. Brun, 63, Dean-street, Soho, and have found the patients satisfied with it. But, as I shall explain presently, the patients must first of all be taught what *wine* is, and the right way to use it; and the difference between drinking *wine* as a refreshing beverage, and gulping down a *dram* of bad brandy, disguised as wine, just to create a feeling of warmth under their ribs. On these points I shall dilate presently, with the help of Denman, Shaw, and some Government Reports, well worthy your attention.

But it is not merely in a Medical point of view, but as a friend of sobriety and morals, that I venture to advocate the larger use of *wine—i e.*, pure wine—as a beverage. There are large numbers of townspeople, and especially of women engaged in sedentary occupations, who cannot digest the beer which is so well suited to our out-door labouring population. The very tea which is so grateful to their languid, pasty, flabby tongues, from its astringent and sub-acid qualities, and which also comforts their miserable nerves, has this intense drawback—that when taken in excessive draughts, and without a due allowance of substantial food, it begets dyspepsia, and that worst form of it which impels the sufferer to seek a refuge in the gin bottle. Cheap wine would cut off the temptation to gin, and, with an equal bulk of water, would be found, in certain cases, a happy substitute for tea. I know a good deal of the better class of needlewomen and milliners' assistants, and speak from experience.

For purposes of social exhilaration, amongst classes who are *not* outdoor labourers, beer is too coarse. Man, as a social animal, requires something which he can sip as he sits and talks, and which pleases his palate whilst it gives some aliment to the stomach, and stimulates the flow of genial thoughts in the brain. No one who has ever made the experiment will fail to give the preference to wine over spirits, or can refuse to give a helping hand to any "movement" that will banish spirits to their proper place, as medicines for the sick and aged, and not as beverages for the healthy. Civilised man must drink, will drink, and ought to drink; but it should be wine.

You will notice that I claim for myself the title "empirical." What I mean is, that I am dealing with a matter our knowledge of which can only be learned from experiments. *A priori* considerations do but suggest experiment, and never can supersede it. With regard to wine most especially, it is impossible to dogmatise on it; to say that such a wine, for instance, must be good in such and such cases, because it contains certain ingredients. The only questions we need ask are, not what is the chemical composition, but is it palatable, and does it agree with you and do you no harm? The stomach is the real test-tube for wine; and if that quarrels with it, no certificate of even Liebig and no analysis are worth a rush.

(To be continued.)

THE SUGAR QUESTION IN CORPULENCY.

Letter from Dr. Inman.

[To the Editor of the Medical Times and Gazette.]

Sir,—The main points of "Bantingism" may be reduced to a small compass. The graminivorous animals are for the most part fat; the carnivora are for the most part lean. The former must get fat upon a vegetable diet; the latter must keep lean on an animal one. If we analyse the diet of the former we find sweet grass to be the chief ingredient. If we inquire when carnivora are fat, we find that it is in infancy, when they feed upon sweet milk. Sugar, then, forms one prominent ingredient in the diet of those who are naturally fat.

But there are animals which, though graminivorous, are not fat—*e.g.*, the hare—and there are "humans" who are also naturally "spare," whatever their diet is. This should not preclude the agriculturist or the corpulent man from studying the diet which promotes "fat making" the most certainly.

The philosopher inquires into the diet of the fattest of men, and of the leanest. Having collated facts, he makes experiments differentially. He draws conclusions and again collates. He now gets puzzled: he finds that babies come into the world fat on no diet at all; that people in diabetes mellitus, whose blood contains, they say, lots of sugar, are thin as whipping-posts. He now despairing turns to chemical theorists who talk big about food. He finds they ignore facts, or select them according to fancy. He then falls back upon the broad statement enunciated in my first paragraph, and believes that vegetable substances have a fattening tendency; sugar and oils are common to the vegetable and animal kingdom; the two are united in milk; babies and lion cubs are fat—*ergo*, if he want not to be fat he must eschew sugar and oils.

I am, &c. T. Inman, M.D.

PREVENTION OF CONTAGIOUS DISEASES BILL.

[To the Editor of the Medical Times and Gazette.]

Sir,—Towards the close of the last Session of Parliament a bill was obtained for the prevention of contagious diseases at certain of our principal seaport towns and camps. The machinery of the bill is simple enough: civil Hospitals are to be subsidised by the State for the cure of the unfortunate women, and a superior Medical officer of the navy or the army is to be appointed Inspector of Hospitals under the Act to carry its provisions into effect. The promoters of the bill being conscious of the advantages that would accrue to the country both pecuniarily and morally, urged its adoption with all the reasoning and power they were possessed of, and yet, strange to say, from the date of its becoming law until the present time it has been, as it were, a dead letter. Three years is to be the limit of the bill unless re-enacted, and three months have now been allowed to elapse without anything being done.

The cause of this neglect is to be found in the strange unwillingness of the Admiralty and the Secretary for War to give an adequate salary to the Inspector. They determined that £500 per annum would only be allowed, and that the office could only be held by a Deputy Inspector-General of Hospitals on half-pay. In other words, it was resolved that only £150 a-year in addition to the half-pay of a Deputy Inspector-General would be allowed for the performance of this very important duty. Our wise naval and military legislators, confident in the propriety of their arrangements, and nothing doubting but that they would meet with a ready acceptance, immediately offered the tempting prize to the Army Deputy Inspectors-General on half-pay. The surprise must have been great indeed when each one of these gentlemen, one after the other, refused to accept the appointment on the terms proposed. The offer will now be made to officers of suitable rank in the navy, and it is to be hoped that they will evince a becoming spirit of independence, and spurn the beggarly stipend as their military *confrères* have done. I am, &c.

London, October 27. Medicus.

*** We regret to state that we are informed that a Deputy-Inspector in the Navy has agreed to accept the onerous and very responsible duties of Inspector at the beggarly salary our correspondent mentions. The *Army and Navy Gazette* states that Dr. Donnet, of Lisbon, is to be chairman of a Commission which is to be called together on the subject of the Contagious Diseases Bill. It had been said that Mr. Skey would probably occupy that position.

Hospital Sunday in Birmingham.—On Sunday the annual collection was made in all the churches and chapels of Birmingham in aid of the charitable institutions of that town. The amount reported as received up to Monday evening was £2350.

OUTLINES OF A PLAN FOR AN ACADEMY OF MEDICINE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Those at all acquainted with French Medical literature must be aware of the advantages conferred upon Medical science by the Academy of Medicine of Paris, and cannot have any reasonable doubt that an English or British Academy would be of signal value to Medicine, the Medical Profession, and Medical literature throughout the whole empire. I will, therefore, assume this point, and proceed to indicate the outlines of a plan of such an Academy.

1. The Academy to consist of ordinary Fellows and Associates. The Fellows to be strictly those Physicians and Surgeons who have meritoriously added to Medical science and art. The Associates and Fellows to conjointly send a list of candidates for the Fellowship for election by the Council. The Council to be elected annually by the votes (proxies taken) of the whole Academy and to be the executive.

2. Branches to be established in any locality where the resident Academicians are sufficiently numerous to hold meetings.

3. The annual meetings to be held on the plan of the British Association for the Advancement of Science.

4. Transactions and proceedings to be published and distributed monthly, or quarterly, or annually, on the plan of the Royal Society, or Royal Medical and Chirurgical Society, or British Association, as found to be most convenient in practice.

5. Honorary Fellows and Associates to be admitted either as corresponding members or otherwise. These to be selected at home from amongst non-Medical persons who have distinguished themselves in the sciences auxiliary to Medicine, and abroad from distinguished scientific persons, whether Medical or not.

6. A Parliamentary Committee, on the model of that of the British Association, to be elected annually, and to include honorary members, being also Members of Parliament. This rough sketch may be easily expanded by any one familiar with the societies referred to.

Now for the finance. The experience of the New Sydenham Society and British Medical Association will warrant the assumption that the members of the Academy will reach 2400 in number, giving, at £1 each member, a gross annual income of £2400. Ten per cent. should, however, be deducted for failures in payments. The subjoined balance-sheet of the British Association for the Advancement of Science enables us to judge what may be done by an Academy of 2400 members :—

Balance-sheet for 1863-64 *of the British Association for the Advancement of Science.*

Receipts	£4505	1	0
Payments :—			
Expenses of Newcastle meeting, 1863, etc.	£261	18	5
Printing, engraving, and binding report of thirty-second meeting	707	2	11
Printing, etc., index to reports 1831-60	143	16	6
Salaries for twelve months	350	0	0
Grants for scientific purposes	1289	15	9
Purchase of £1500 3 per cent. Consols	1387	10	0
Balance in hand	364	17	5
	£4505	1	0

In this balance-sheet there are only three items which may be said to be essential—namely, the expenses of management, bringing out of the "Transactions," and the salaries. For £707 the Association produced its Thirty-second Report, substantially bound, consisting of fifty-two sheets of sixteen pages large 8vo, besides a plate, woodcuts, and numerous tables very expensive to print. Not fewer than 1500 copies are delivered as per printed list, so that the edition must be at least 2000 copies. The volume contains a series of "Reports" on various branches of experimental science, in addition to the "Transactions" of the sections, comprising lists and abstracts of the papers read. These "Transactions" would correspond to the "Proceedings" of the branches of the proposed Academy. Judging by this precedent, I think we shall be quite safe if we put down the cost of printing the "Reports" of the Academy—2500 copies—at £800. For £350 annually the British Association has had the services of so able and distinguished a man as Professor Phillips, in arranging as to the grants for scientific purposes, editing the Report, and acting as general secretary. If we put down, then, the same sum for salaries and also for management for our proposed Academy of Medicine as for the British Association for the Advancement of Science, the balance-sheet would be something like the subjoined :—

Receipts from 2400 members at £1 per annum, less 10 per cent. for failures in payment of subscriptions	£2160
Payments :—	
Expenses of management and of annual meeting	£260
Printing, engraving, and binding 2500 copies *Transactions*	800
Salaries for twelve months	350
Balance in hands of the Treasurer	750
	£2160

We might safely calculate, therefore, upon a surplus of £500 either to invest as a security against bad years and unavoidable losses, or to encourage scientific and practical researches in Medicine.

Now, I know that not a few of your readers, having in view the progress of a numerous and similarly constituted body, will pooh-pooh my financial statement. It is true that the experience of the British Medical Association is not encouraging, if examined superficially, for it is even now in debt, although its members were (I believe) never more numerous. But let us examine the finances of the body in a business-like way, and see what that experience really teaches; and let me here express a hope that Sir Charles Hastings, and those who so warmly or patiently support the *Journal*, will bear with me in my remarks. I have no wish to hint any revolutionary reforms, or change the present system in the slightest degree. So far as I am concerned, I can only desire that it may continue that system for a thousand years, or longer, if that be desirable, and become more and more perfect, if that be possible.

The Association now numbers, we are told, "above 2400" members. The subjoined is the balance-sheet for 1863. Under the head of "Receipts" we are not informed how many of these have paid their subscriptions, nor how many have not; nor is there credit given the Association for "sales" of the *Journal*; yet surely a few copies have been sold.

Receipts of British Medical Association.

Balance from 1862	£221	1	10½
Subscriptions of members	2118	9	0
Donation	10	10	0
Advertisements in *Journal*	626	16	4
	£2976	17	2½

Expenses of Journal.

Mr. Richards (printer), 52 nos.	£1784	9	0
Mr. Richards, for directing, etc.	66	16	0
Mr. Honeyman (publisher), sundries (?)	92	18	0
Mr. Davidson (commission) ?	77	19	0
Engravings	5	3	6
Editor of *Journal* (Dr. Markham)	200	0	0
Sub-editor (Dr. Henry)	50	0	0
Contributors to *Journal*	301	8	0
Interest and commission	3	16	4
Total expenses of *Journal*	£2582	9	10

Now, it is right to note that the *Journal* is directed and sent free by post to the members, which is not the case with the Report of the British Association, so that for the purposes of comparison we must deduct something under this head. On the other hand, the *Journal* is not bound for the members, while the Report is. 2400 stamps weekly amount to £10, or £520 per annum, add "directing, etc." (charged by the printer), £66 16s., and under this head there is the sum of £586 16s. to deduct. Whether there is a discount or not on the stamps is not stated: I therefore take them at the full charge. As a set-off for the binding of the Reports of the British Association, we can allow 6d. per volume on 2400, equal to £60. The comparative cost of the literary or scientific work of the two Associations will therefore stand as follows :—

British Medical Association.

Gross annual expenses of *Journal*	£2582	9	10
Deduct cost of weekly distribution	586	16	0
Net cost annually of *British Medical Journal*	1996	13	10

British Association for Advancement of Science.

Printing, engraving, and binding annual Report	£ 707	2	11
Salaries for editing, etc.	350	0	0
	1057	2	11
Deduct charges for binding	60	0	0
Total cost of Report not bound	997	2	11
Total cost of *British Medical Journal* not posted	1996	13	10
Balance against *British Medical Journal*	999	0	1

So that nine hundred and ninety-nine pounds was spent upon the bringing out of the *British Medical Journal* more than upon the Report of the British Association for 1863-64.

Let us now inquire how this enormous excess arises. I have charged the whole of the salaries of the British Science Association against the cost of the annual Report; but the British Medical Association pays other salaries besides the editor, sub-editor, and contributors, under the head of "executive expenses," as follows:—

Dr. Williams (General Secretary), and clerk	£117	0	0
Mr. Williams, of Birmingham (another Secretary)	52	10	0
Dr. Williams, petty cash	49	9	8
Mr. Williams, ditto	8	5	11
Bristol reporter	11	14	6
Birmingham stationer	10	9	6
Sundries, district expenses, Post-office orders, and collecting	18	10	10
Total	£268	0	5

The "executive expenses" for 1862 were only £191 7s. 10d., yet in 1863 they exceed a similar item in the accounts of the British Association for the Advancement of Science. Now, this is due, first, to the charge for secretaries under this head, which was £117 in 1862 and £169 10s. in 1863. But all charge for secretary's work for the British Association is, I believe, included under the charge for editing the reports. Secondly, the charge for a reporter (£23 in 1862) belongs also to the *Journal*. Then there are the payments of "sundries" to Mr. Honeyman, the publisher, and to Mr. Davidson (whose duties I am ignorant of) for "commission," both which appear to be also of the nature of salaries; at all events, nothing like them appears in the accounts of the British Association. The comparative cost of the two bodies in respect to salaries stands therefore thus:—

British Medical Association: Salaries, etc.:—			
Secretary at Birmingham	£52	10	0
Ditto, and clerk at Worcester	117	0	0
Editor, £200; Sub-editor, £50	250	0	0
Contributors to *Journal*	301	8	0
Publisher	92	18	0
Agent or commissioner	77	19	0
Total salaries, etc.	891	15	0
Salaries of British Association	350	0	0
Excess of expenditure in salaries of British Medical Association	£541	15	0

Now, here is a plain source of financial embarrassment for the British Medical Association, which my proposed Academy of Medicine would escape by imitating the other Association in the matter of salaries.

But this would not be the only saving that could be effected. Independently of this large appropriation of funds to salaries (amounting to not less than one-third of the entire income), there is the additional cost of paper and printing. The *Journal* makes up two volumes annually of 700 4to pages each, double columns, whereas the annual report of the Association for the Advancement of Science is a single volume. I do not now question the policy of publishing these two volumes; it is said that the very existence of the Association depends upon their publication, and it is therefore necessary. Nor do I pretend to criticise the editing. We must concede, in fact, that this is most satisfactory in regard to the objects and plan of the Association. The Council, in their report adopted at Cambridge, *nem. con.*, say they "have much pleasure in acknowledging the continued ability with which the *Journal* has been conducted during the past year." What, in fact, we have to consider is, whether such a journal would be required for the success of an Academy of Medicine. If we look into the *British Medical Journal*, we find the most prominent items, as to type, are certain contributions called "leading articles," which seem to be the opinions of the editor on current events, such as trials, hangings, elections, and the like, or personal disquisitions on laudable and recalcitrant members of the Association, editors of other journals, and public persons. In one "leader" we are told that all the officers of public Medical charities hold their appointments for none other than selfish ends; in another, that there are only three public teachers of Medical science in London who lecture from any other motive than to get into practice; in another it is admitted that a London lecturer (one of the few who contribute to the *Journal*) is one of the three, and I think it is implied that the Editor is another; the third metropolitan Uriel of Medicine is as yet unknown. In one leader you are denounced as "a Tartuffe" in reply to some of your animadversions on the editorial lucubrations. In the "leader" you criticised, some stupid jurymen at Liverpool were rated as if the sentiments they uttered were those of the Prime Minister, or even of the three celebrated tailors of Tooley-street. A weekly polemic has been going on ever since the beginning of August with the Editor of the *Lancet*, because he got the start of the *Journal* in publishing Dr. Humphry's Address to the annual meeting. I say nothing of minor personalities, nor of the domestic records of births, marriages, and deaths in the Association, and other "small-beer" matter.

The *Journal* is plainly a Medical newspaper, apparently as much esteemed by the members as it is by the salaried officers and Council; but I do not think an Academy of Medicine would want a journal of the kind. If current rumour be correct, the editor of the *British Medical Journal* is, or has been, specially paid also as a contributor for his "leading articles," in addition to his salary of £200 a-year. Now, let us conceive an account presented to an Academy of Medicine from their scientific editor of papers with items such as—"To wigging certain Liverpool jurymen, and asking them how they would like to be called up at night to give out brandy and pearl barley: two columns—two guineas;" or "To trouncing the editor of the *Medical Times and Gazette* soundly, and calling him a Tartuffe for criticising me—£ s. d.;" or "To tying a kettle to the tail of the editor of the *Lancet* for surreptitiously making off with, etc.—£ s. d." Clearly, however amusing, and even valuable, such productions may be in regard to the British Medical Association, they would be out of place in the reports of proceedings of an Academy of Medicine, and all the sums expended on them might be saved. Indeed, it would be the height of presumption in the paid officer of such a learned body as I contemplate to print his opinions at its cost and uninvited on any subject whatever.

It may be alleged, however, and not unfairly, that part of the £300 allotted to contributors to the *Journal* goes really to the encouragement of Medical science. Able "reviews," for example, and letters from "our correspondents," are thus procured. But the works of the members of an Academy of Medicine would be submitted, with proper dignity and due regard to the subject, to a Committee of the Academy to examine and report, as is done by the French Academy. Looking, indeed, from this point of view at the contents of the *British Medical Journal*, it is difficult to understand how the £300 is or can be spent yearly upon scientific matters. Sir John Forbes used to pay contributors £6 for sixteen closely printed octavo pages of the *British and Foreign Medical Review;* so that £300 ought to produce 800 such pages. Yet there is, I think, nothing like these in the two volumes of the *Journal*. Sir Charles Hastings, or the treasurer, or the auditors, would do good service to science if they would show how this £300 is expended, by publishing in the *Journal* a list of the scientific contributions—not necessarily of the contributors—thus honoured by direct payment. In the meanwhile, for the purpose of financial estimate, we may assume as a fact that the *best* contributions to the *Journal* have *not* been paid for, and that such would be the case with the papers and essays in the Transactions of an Academy of Medicine as it is in regard to those of all learned societies, except in the case of special grants.

While, then, the financial experience of the British Medical Association rather thus assists my argument than otherwise, that of all the truly learned and scientific societies, whether at home or abroad, is wholly in its favour, so that no doubts need be felt as to the funds of the proposed Academy. It is rather the organisation that would present the real difficulties. Upon this point I need only observe that if the Medical societies of

the metropolis, headed by the Royal Medico-Chirurgical Society, were to stretch out their hands to those of the country, including the branches of the British Medical Association, that organisation would be easy. The Northumberland and Durham Medical Society publishes, indeed, its Transactions already. The experience of the British Association for the Advancement of Science is particularly valuable on this point of the organisation of an Academy of Medicine, as well as to finance and meetings. But on these I need not dwell.

I beg the attention of the editors of the other Medical journals to this proposal. I am, &c.

A Fellow of the Royal Medico-Chirurgical Society.

LEGAL INTELLIGENCE.

INFRINGEMENT OF THE MEDICAL ACT — THE INDEFATIGABLE MR. TALLEY.

At the Uxbridge Petty Sessions, October 24, Mr. William Talley, of Beaconsfield, summoned Doctor Walter De Roos (otherwise Mr. George Robinson), for infringing the 40th clause of the New Medical Act, in describing himself to be a M.D., and having placed these initials after his name, without being duly qualified or registered as such.—Mr. Talley conducted the information, and Mr. Robinson, who was sent down by Messrs. Nicholson and Clarke, appeared to defend.—Before the business was proceeded with, Mr. Robinson said he appeared to defend the person who occupied the house 25, Bedford-place, but he did not know who Mr. Talley had summoned, for his client was at Brighton, and it was impossible for that gentleman to attend before the Bench that day. Some time was taken up in ascertaining for whom this gentleman was supposed to attend, and he felt equally anxious to know for whom Mr. Talley appeared, or whether he was the common informer or the complainant; if so, he said he should know upon what grounds he stood.—Mr. Talley then read the whole of the advertisement in Broadwater's paper, in which the defendant had styled himself Doctor of Medicine, and then called police-constable William Mason, T 47, who said: On the 18th (Wednesday) last, I went to 25, Bedford-place, to serve the summons upon Dr. De Roos, but I was told by the private secretary (Mr. Thomas Hall) that the Doctor was not at home. I was in plain clothes, and although I had a summons for Thomas Hall, I did not serve it then, but I bought a box of pills and went away, and called again the next day. I did not take the pills. The next day I served the summons upon Dr. De Roos, who told me he was the Doctor, but after I served him he said he was not the Doctor, and that gentleman would not be at home for a day or two.—Mr. Robinson here objected to the evidence being taken, as the defendant was not answerable for what other people might say of him, or was his identity proved; and after a great deal of discussion, the magistrates said they considered that if Dr. Roos was not in attendance he was represented by his counsel.—Mr. Talley said the defendant had been seen in the neighbourhood of West Drayton that morning by the policeman, and his name was again called out in court, but no response was made to it.—The Magistrates decided that the case should go on, when the witnesses were ordered out of court, and Mr. Talley entered into the amount of mischief of such deceptions were calculated to cause among poor people and ladies, saying how susceptible all were to be taken in when the mind or body was diseased. He was, however, interrupted in his opening speech continually, and asked not to point out the mischief of the infringement, but prove his case by the witnesses. He then called for Mr. Thomas Hall, the Secretary to Mr. Walter De Roos, but that person did not answer to his name.—Mr. Talley then called Mr. Broadwater, the proprietor of the paper in which the advertisements were inserted, who said he had never, to his knowledge, seen Dr. De Roos. He received the order for insertion of the advertisements through an advertising agent; that he sold a great many of Dr. De Roos' renal pills as patent medicine, and had received them through a patent medicine warehouse in London, as he did other patent articles. He had sold the pills to high and low, and heard many praises of them. He could not connect Dr. De Roos with the advertisement, for he had never, to his knowledge, seen either the Doctor or his secretary. He had advertised for the same parties for years. He then gave the agent's name as Mr. F. C. Lewis, of Montague-mews, Montague-street, London, through whose agency she had received the order.—Mr. Charles Henry Waldron was then examined. He said he was a merchant's clerk, and was living at Islington. He knew the person who personated Dr. De Roos, because that person had told him he was the Doctor. He did not ask him the question. He called upon him on July 5, but did not then see him, but subsequently saw him. He had seen the advertisement in the paper similar to the one just read, and from that he consulted him. He should not have gone had he the slightest intimation the Doctor was not a registered M.D. He went to Dr. De Roos as a Physician. He saw the person who represented himself to be the Doctor. The first time he visited the house the Doctor was stated not to be at home; but on a subsequent visit he saw him, and that person gave him some medicine, for which he (the witness) paid. The name of De Roos was not on it. He was ordered to take it periodically—that was three times a day. The only direction on the medicine bottle was "to be well shaken." He never asked to see Dr. De Roos. He paid the money, in all, £6 1s.; but the treatment gave no benefit. He did not think he was worse or better. He was under his care for a month.—Mr. Talley asked the witness if he ever saw that instrument (pointing out one in a book).—Mr. Robinson objected to the evidence, and, after much discussion, the Magistrates decided it was not necessary. No evidence having been given of the identity of Dr. De Roos, Mr. Robinson contended, Mr. Talley again asked for the policeman William Mason, to have his examination finished, and on his being re-called, he said he laid a copy of Broadwater's paper on the table, and left it when he served the summons on the person who called himself the Doctor. He also gave the summons to Thomas Hall, and tendered him five shillings, but he refused to have the summons or the money. The person who called himself the Doctor, when he gave him the summons, said he had got other work to do than attend to any summonses, and that he was not the Doctor.—Mr. Talley said as Mr. Thomas Hall, the private secretary of the Doctor, had not attended to the summons, he must ask for an adjournment, to compel that witness to attend.—Mr. Robinson objected to an adjournment, because of the person who was supposed, or put himself off as Thomas Hall, were to attend, Mr. Talley would fail to make the case out, and he knew that Thomas Hall had left the establishment some months. During the whole of this investigation the Court and Mr. Robinson continually asked Mr. Talley to keep to the point of identity, and the former objected to nearly every question the complainant put. A paper was put in of October 8th, and then the evidence of Mr. Waldron, relating to July 5, he deemed could not be evidence, and the defendant had had no notice to produce the paper. He said he was compelled to keep objecting, because evidence might be placed on the depositions that afterwards it would be difficult to get off having once been there. The Bench said if he would allow Mr. Talley to go on in his usual way there should be nothing placed on unfairly, so that the latter part was got over more quietly, but it lasted for two hours.—The Magistrates, having then consulted together for some time, said if Mr. Talley wished for an adjournment they would grant it, but that they considered the five shillings tendered to the person Thomas Hall was not enough.—Mr. Talley inquired if the same summons would be sufficient if he increased the amount, but the Bench refused to give any opinion, telling the solicitor he must conduct his own case. It was then arranged that the summons should stand adjourned until next Tuesday, to be heard at the Public Rooms at eleven o'clock.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, October 27, 1864:—

Frederick Henry Hume, Angel-terrace, Islington; Charles Eddowes, Millbrooke, Southampton.

University of Erlangen.—Faculty of Medicine.—Names of English gentlemen who passed their Examinations for the degree of M.D., and received Diplomas, between November 1, 1863, and October 31, 1864:—

George Kenneth Poole, Indo-British Army; John Reynalds, Truro, Cornwall; Major Charles Dukes, London; Hugh Richard Duncan Mackintosh, Baddow, Essex; Charles Robert Fleury, Peninsular and Oriental Company; James Coombs, Bedford; John Lang, Manchester; Balthazar Walter Foster, Birmingham; Nicholas William Barrington, London.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BAZIRE, P. VICTOR, M.D. Lond., has been appointed Assistant-Physician to the National Hospital for the Paralysed and Epileptic.

BELL, BENJAMIN, F.R.C.S. Edin., has been appointed President of the Royal College of Surgeons, Edinburgh, for 1864-5.

COOKE, JOHN, M.B. Lond., has been appointed Resident Medical Officer to the Bath Mineral Water Hospital.

HEWITT, Mr. DAVID BASIL, has been appointed a Demonstrator of Anatomy in the School of the Royal College of Surgeons in Ireland.

MAURICE, OLIVER C., M.R.C.S. Eng., has been elected Surgeon to the County Gaol at Reading.

REYNOLDS, J. RUSSELL, M.D., F.R.C.P., has been appointed Physician to the National Hospital for the Paralysed and Epileptic.

SIEVEKING, EDWARD H., M.D., M.R.C.P., has been appointed Physician to the National Hospital for the Paralysed and Epileptic.

WALKER, JAMES P., M.D. Aberd., has been appointed Professor of Hygiene at the Medical College, Calcutta.

WRAITH, J. H., M.R.C.S. Eng., has been appointed House-Surgeon to the Blackburn Infirmary.

DEATHS.

BLETCHLY, EDMUND, M.R.C.S. Eng., at 19, Tabernacle-row, Finsbury, on October 29, aged 32.

CRAIG, JOHN S, L.R.C.P. Edin., at Bridge-street, Stratford-on-Avon, on October 28.

GABRIEL, EDMUND N., M.R.C.S. Eng., at Westow-hill, Norwood, on October 31, aged 64.

GRAY, Dr., at Bayswater, on October 25, aged 71, formerly of Amersham, Bucks.

PATTERSON, SAMUEL A., M.R.C.S. Eng., late Surgeon to H.M. C.S.S. *Victoria*, on August 18.

WALLACE, DANL. N., M.D. Glas., at Boyle, Co. Roscommon, on September 17.

STAFF-SURGEON JOHN L. DONNET, M.D., has been summoned to England from Lisbon to act as chairman of a committee which is to receive and condense evidence upon the diseases in our seaport towns, so that some measures may be taken in connection with the new Act of Parliament to protect the health of our maritime population.—*Army and Navy Gazette.*

UNIVERSITY COLLEGE HOSPITAL.—At a late meeting of the Hospital Committee, the Chairman announced that he expected the funds of the Hospital would shortly be augmented to the extent of £5150, the following bequests having been made:—By Jacob Stiebel, Esq., £5000, a gentleman who received his early education in the University, and thus gratefully remembered his Alma Mater; by Henry Lloyd, Esq., £100; and Z. A. Jessel, Esq., £50.

GLASGOW MEDICAL SOCIETY. — The fifty-first annual meeting of this Society was held in the Faculty Hall, St. Vincent-street, on Tuesday, October 18, when the following gentlemen were elected office-bearers for the Session 1864-65:—*President*—Dr. James Morton. *Vice-Presidents*—Dr. G. H. B. Macleod, Dr. J. G. Wilson. *Treasurer*—Dr. R. Perry. *Secretaries*—Dr. W. R. Hatrick, Dr. Maclaren.

SUNDERLAND MEDICAL SOCIETY.—G. S. Brady, M.R.C.S. Eng., has been elected president for the ensuing year, vice G. B. Morgan, L.R.C.S.I. Henry J. Yeld, M.D., M.R.C.S. Eng., has been re-elected secretary and treasurer for the ensuing year. E. A. Maling, M.R.C.S. Eng., has been re-elected librarian for the ensuing year.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.—The Medical staff of this Hospital, previously consisting of J. S. Ramskill, M.D. Lond., M.R.C.P., and C. B. Radcliffe, M.D. Lond., F.R.C.P., Physicians, and J. Hughlings Jackson, M.D., M.R.C.P., Assistant-Physician, has been increased by the appointment of two Physicians, E. H. Sieveking, M.D., F.R.C.P., and J. Russell Reynolds, M.D. Lond., F.R.C.P., and an Assistant-Physician, P. Victor Bazire, M.D. Lond. and Paris.

OPENING OF THE EDINBURGH UNIVERSITY.—On Nov. 1 most of the classes in the University of Edinburgh were opened for the winter session, and the professors of the faculties of arts, law, and Medicine delivered introductory lectures to their several courses—it having been arranged this year that the classes should be opened for a fortnight before the introductory address is delivered by the Principal, Sir David Brewster. There was yesterday a large attendance at the various classes, and though no classified returns of the numbers of matriculated students have yet been compiled, it is believed that the numbers will bear favourable comparison with those at the corresponding date last year. Among the visitors present at the opening of the classes, were—His Grace the Duke of Argyll; Lord Barcaple; Dr. Burt, President of the Royal College of Physicians; Mr. Benjamin Bell, President of the Royal College of Surgeons; Mr. Patton, advocate; Mr. Monro, advocate; Dr. Maclagan; Dr. Andrew Wood; Dr. Cox; Dr. Balfour; Dr. Littlejohn; Dr. Menzies; Dr. Young, etc., etc. An address was delivered by Professor Spence, the new Professor in the chair of Surgery.

THE NATIONAL MEDICAL REGISTRATION ASSOCIATION AND THEIR LATE PRESIDENT.—We have great pleasure in stating that it is the intention of the members of this Association to invite Mr. Lavies to a public dinner for the purpose of showing their sympathy and regard for the valuable services he has rendered, not only to the Association, but to the Profession, during the long period he held the office of President and Treasurer. He has had to contend against debts and lawsuits, which entailed upon him no ordinary amount of pecuniary loss and anxiety. It is confidently expected that every member of the Association will embrace this opportunity to honour one who has done his duty towards them, and is besides universally respected by his brethren of the Profession. The dinner is announced for November 23, at the Freemasons' Tavern; W. Fergusson, Esq., F.R.S., taking the chair. The dinner will not be confined to members of the Association. Those gentlemen who wish to be present may communicate with the Hon. Sec., W. Adams, Esq., 37, Harrington-square, N.W.; Dr. Lilly, South Lambeth, S.; or Jabez Hogg, Esq., 1, Bedford-square, W.C.

MR. ALFRED SMEE'S ADDRESS TO THE ROCHESTER ELECTORS.—After speaking of the necessity of supporting the army, navy, and volunteers, Mr. Smee continues:—"Should I have the honour to become your representative in Parliament, it will be one of my duties to uphold the relations between Church and State, to maintain intact the constitution under which we enjoy so much political and religious freedom, and to remove as much as possible restrictions upon trade and commerce, so that where taxation unduly presses upon the people it may be equitably adjusted. A sincere Churchman, I am, of course, anxious that the long-vexed question of Church rates should be settled upon an equitable basis, and I should be prepared to support any well-considered measure having that object in view, my opinion being that whilst the Church is the centre of religious freedom the State should protect those who conscientiously differ from her tenets. I am an advocate for non-intervention in the affairs of foreign states, unless the important interests of this country should be called in question. The ballot I believe to be simply impossible in this country, and I have no faith in its efficiency as a protection to the voters. I consider that the laws by which justice is administered at present require reform; the present construction of the law courts being too much in favour of the barrister and attorney, and having too little consideration for the public good. I am in favour of local self-government: it is a conservative doctrine deserving every support. The comfort and happiness of those who live in large towns should, as far as possible, be considered. The construction of libraries, baths, parks, and public gardens would promote this, and my earnest support will be given to these objects."

COTTON FAMINE AND MORTALITY.—One of the most notable incidents of the cotton famine has been the lessened death-rate throughout nearly the whole of the district, and, generally speaking, the improved health of the people. This rare accompaniment of a famine deserves a special investigation, yet becomes more or less self-evident when the habits and character of the people are known. In times of plenty their incomes far exceed their social position; they have the best food, and consume in quantities far more than the requirements of health demand; they are large drinkers of ardent spirits, they are confined in ill-ventilated factories, the special demand for labour calls the mothers away from tending the juveniles, and as a consequence infant mortality crops out largely. Of necessity the famine remedied many of these evils. Over-eating was not possible to persons who were receiving at most 2s. each per week. Retailers of beer and spirits suffered more than any other class of vendors. Mr. Farnall, the special commissioner, stated in May, 1862, that the beershops of Preston were taking not one-fourth of the money received in ordinary times. The Inland Revenue experienced in the same year a decline of more than 28 per cent. in cotton districts. The sexton in one of the most important towns in Lancashire, when asked

how it happened that his trade was unusually inactive during the summer, replied, "Well, thae sees, poverty seldom dees. There's far more kilt wi' o'er-heytin an o'er-drinkin' nor there is wi' bein' pinched," a truth which contains a moral lesson valuable to all classes.—*The History of the Cotton Famine, by R. Arthur Arnold*, 1864.

POISONING BY CHLOROFORM.—Dr. Macker related the following case to the Medical Society of the Haut-Rhin. A soldier, aged 27, on furlough, and in a state of drunkenness for several days past, seeing a bottle on a table, which he thought contained alcohol, drank off its contents, which consisted, in fact, of 12½ drachms of chloroform. He was found soon after vomiting, and soon become insensible, still continuing to discharge mucosities. The pupils were enormously dilated, and his aspect was cadaveric; the respiration was stertorous, the pulse 100, and feeble, and the action of the heart occasionally tumultuous. There were present utter loss of consciousness, complete resolution of the limbs, and absolute general anæsthesia. After a short period the pulse became insensible, the respiration was arrested every now and then, and there was tracheal *râle*. Stimuli to the surface and artificial respiration were resorted to, and strong coffee infusion was injected. This alarming condition continued three hours, the anæsthesia remaining complete and the pupils dilated, while occasional contraction of the limbs was observed. An hour later, however, the pulse rallied, and the skin became warmer, but anæsthesia still persisted. At the end of the sixth hour the amelioration was very manifest, and in another hour he was carried to the Hospital. He retained no memory of what had passed, and neither convulsions nor delirium ensued; and next day he complained of little but what might be due to his excess in drinking.—*Union Méd.*, No. 127.

THE RIGHT HON. ROBERT LOWE ON EXAMINATIONS FOR WOMEN.—At the distribution of prizes for the Oxford Local Examinations at Nottingham on October 28, Mr. Lowe spoke as follows. We will assure him that there is no "panic" at all in our ranks, and that we are quite willing to let the public choose between male and female Practitioners; that is their affair. "We say it is right that those who have passed a successful examination should have the fact recorded, and that their knowledge, so to speak, should thus be stamped into money. That seems a just principle. Why is it extended to men alone? Suppose a young lady acquires the knowledge covered by these examinations. Suppose she is a good mathematician, or has a knowledge of any language or branch of natural history. All ladies cannot marry. Suppose she has to work for her bread. What fairness is there in denying her this certificate of proficiency which you give to every man who can gain it? (Hear, hear.) Where is the gallantry of the male sex in refusing to women that which we find so beneficial to men? These things are a blot on our civilisation. When I see that a woman who acquires the art of printing is not admitted into the printing-office lest she should thereby lower wages; when I find an absolute panic among the Doctors at the notion of any woman practising Medicine—it seems to me that our treatment of the fair and better half of humanity is most harsh and unjust. We overwhelm them with compliments; we give them precedence; but when it comes to equal justice, when they ask to have equal justice with ourselves, we not only do not treat them with gallantry and consideration, but with the utmost cruelty and contempt. (Hear, hear.) I do not want a separate examination for women, but if a young lady can satisfy an examiner upon the same subjects as are set before men, she is as much entitled to the advantages of this certificate as they have; and it is a narrow-minded, an unfair, and an unchristian thing to deny this certificate to her."

NEW MODE OF ADMINISTERING CHLOROFORM.—Dr. Bartlett laid before the Chicago Medical Society an account of his mode of administering chloroform, especially in cases in which its application has to be frequent or immediate, as in convulsions, pertussis, neuralgia, labour, etc. Its economy also recommends it, and by its use the chamber of the patient is kept comparatively free from the odour of chloroform, which to many is disagreeable or sickening. "Into a 4-oz. gallipot Dr. Bartlett fits a cap-shaped sponge, retaining it in place by a transverse stay of wood. The anæsthetic being poured upon the sponge, the pot is placed inverted in a saucer containing a little water or mercury. The tension of chloroform vapour not being very great, and it being only sparingly soluble in water, but little is lost. The sponge may be used successively hours after pouring the chloroform upon it."—*American Med. Times*, July 23.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A Student.—The "primary" examination at the College of Surgeons will commence on Saturday next (this day), and the "pass" on the 12th and subsequent days.

John Hunter.—The oration is now *biennially* delivered; Professor Gulliver gave the last. Professor Partridge will deliver the next on the 14th of February, the anniversary of the birth of John Hunter.

Mr. Griffin, Weymouth, requests, for the information of the Poor-law Medical Officers, that we will give insertion to the following paragraph from a letter sent by a Poor-law Inspector (W. H. T. Hawley, Esq.) to the Southampton Board of Guardians, which proves that the subject of "expensive medicines" is under the consideratiou of the Poor-law Board:—

"I shall also be obliged if you will obtain from the Guardians an opinion as to whether expensive medicines. such as quinine, cod-liver oil, etc., should be supplied by the Guardians, subject to the orders and regulations of the Poor-law Board, or whether the Medical officers should supply those articles, and make a special charge for them."

We have received a letter from a lay correspondent stating that, late in the year 1860, he consulted a Medical man. In the year 1862 he received, through the London and Provincial Medical Agency Society, 43, Lincoln's-inn-fields, an application for his Medical attendant's account, amounting to £1 19s. 6d. This he paid. Last month he received another application from the same Association for the same account. He answered that he had already paid it, but unfortunately had mislaid the receipt. Under pressure our correspondent again paid the bill. He complains that the Medical man informed a friend that he had not paid the account and avoided payment, and thus damaged his character. The receipt for the first payment was subsequently found. Our correspondent on this wrote to the Secretary of the Association, who immediately refunded the money, and explained the occurrence by the fact of the death of the agent to whom the first payment had been made. Our correspondent complains of the conduct of both the Doctor and of the Association. We think the former was indiscreet, but may be partly excused by the fact that the first payment was not made until at least eighteen months after the attendance. The latter seems to have acted in the matter, to say the least, with haste and carelessness.

Erratum.—Page 481, line 29, *for* "Wm. Rogers" *read* "M. C. Rogers."

THE GRIFFIN TESTIMONIAL FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following subscriptions have been further received on behalf of the above fund:—H. C. Wildash, Esq., East Ashford, 10s. 6d.; R. Davies, Esq., Dunmow, 5s.; T. A. Stephenson, Esq., Radford, 5s. Amount previously announced, £91 5s.; received at the *Lancet* office, £5 13s.

I am, &c.

ROBERT FOWLER, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, November 2.

DISTRIBUTION OF INDECENT BOOKS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—On visiting this morning the eldest of five daughters, all at home, I found on her bed the pamphlet I have (I cannot say) the pleasure of sending you by this evening's book-post. This occurred in the parish of Bisley, in the union of Chertsey, a parish of not above 500 souls, all small farmers and labourers. I find that seventeen of them went through the nearest little office this morning, and that this was not the first time that they have been so distributed.

I cannot find in this year's Medical Directory either the names of Dr. Hammond or his "confidential assistant, Henry James, Esq.," and the address, 11, Charlotte-street, Bedford-square, is equally ignored.

Leaving you to peruse it, if you should so desire, I merely write and ask you to direct the attention of the Medical authorities of the Lock, King's College, St. Mary's, and St. George's Hospitals to the "intimate connexion" that Dr. Hammond claims with them, and the use he makes of their names. For while they desire that their liberality should be legitimately used, I am sure they do not desire that it should be thus abused and prostituted. I could produce a case where this great Hospital "connexion" has deceived one who ought, but could scarcely be expected to know better.

I need not encroach further on your time and space, but if the distribution through all England is 5 per cent. of population, as in Bisley, how great a dissemination of baneful knowledge is thus openly being carried on. Surely the authorities ought to stop it! I am, &c.

Bagshot, Surrey, October 19. JOHN H. BLOUNT, M.D. Lond., etc.

*** Our correspondent encloses a filthy book, by one Hammond. As for the authorities of King's College Hospital or St. Mary's, it is quite impossible to prevent any man whatever for boasting that he may have attended practice in those institutions. We would ask, however, whether it be true that Dr. Hammond is a member of a well-known scientific society, whose name we cannot defile by bringing it into connexion with his.

MR. TALLEY'S PROCEEDINGS AGAINST UNREGISTERED PRACTITIONERS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Be pleased to afford your numerous readers an opportunity of forming their own opinion of my conduct in reference to a summons which was issued against Mr. Rogers by the publicity of this explanatory letter in your columns.

Whilst I was in correspondence with the Medical Council of Education and Registration, I made a special request to the Registrar, Mr. Francis Hawkins, in reference to Mr. Rogers, as I was instructed that he had an inside door-plate with "Surgeon" only thereupon, independent of his

collection of teeth, and that his name did not appear on the Medical Register, to which I received the following reply by way of a P.S. :—

"Mr. Maurice Cohen Rogers, of 18, New Burlington-street, is not registered under the Medical Act."

Now, as the Registrar knew my object, I submit to you, Sir, that he would have exercised more discretion if he had referred to the "Medical Directory" instead of tendering to me his legal advice, although very courteously directed. When I discovered the error which had thus arisen, I immediately withdrew the summons, and called on Mr. Rogers, explaining the matter to him with every apology, and also his attorney, at which they appeared disappointed, evidently anticipating a grand defeat. However, they made a rush for costs and publicity, and although I cannot understand that the magistrate had any power to award costs, inasmuch as the summons was withdrawn by his permission, yet I paid them under his assumed authority.

I don't believe for one moment that Mr. Rogers intended, in acquiring so much publicity, to show me his teeth, and I trust he is now delighted by the public exhibition which you and others have so generously afforded him of doing so, and that he will now register a spirit of contentment as well as a celebrated name for "the teeth." I am, &c.

Beaconsfield, Bucks, November 1. WILLIAM TALLEY.

Clinical Teaching.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—There is a subject which has at all times attracted much attention, and not less lately than in former years, for it has the greatest practical interest to those teaching or learning the Profession at the Hospitals—I mean clinical teaching. On this subject, though I have been more often in the position of a learner, I think I can offer a good suggestion to the teacher, as far as operative Surgery is concerned. (I remember well, as a student, how little I could really see of the operations, and how glad I was to hear anything of what had been or was going to be done for any patient. I could hardly follow the steps of the operation whilst it was going on, still less could I at once see the necessity for any extraordinary proceeding then adopted.) As, at any rate, my plan has been approved by students who have really cared to understand my eye operations, and as it seems to me to impress their minds—in fact, to teach them—I wish to publish it, premising that possibly it may not be new, though in my experience of clinical instruction I have not known of its being adopted by others. My plan is to make the operation itself a demonstration to the students, describing the operation and everything I am doing, and when there is time, mentioning any correlative precautions, etc. I do not delay the operation by this; it is soon easy to talk and operate at one and the same time, and I believe it is very much more instructive (teaching by the eye as well as by the ear) than a preliminary or subsequent lecture on the operation. This plan of mine would not have been possible years ago in any important operation before the use of chloroform, for it would be impossible to lecture on a patient in great pain, and by a progressive and tedious description of the operation to aggravate the pain he felt. But, though chloroform is not given in a case of a minor operation, such as probing the nasal duct, I do not hesitate to describe it at the time to the students, not allowing myself to delay its completion, or speaking, except in a low voice (for an operation can only be witnessed advantageously by those near at hand), and it is essential to show the operation and to describe it at the same time. It is, I believe, as much better than the old plan of a lecture preliminary or subsequent to an operation, as an anatomical demonstration is better than a mere lecture on anatomy when the parts are not shown. Of course, I am aware that some few operations are so critical that an operator would hardly be able to talk of the operation at the time of operating. It is not necessary to look away from the patient at the students whilst lecturing during an operation, or demonstrating an operation. The clinical teaching in this case, however important, must, however, of course, be considered by the operator as quite a secondary consideration. I am, &c. J. F. STREATFEILD, F.R.C.S.

15, Upper Brook-street, W.

Celsus on Missed Labour.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the discussion last Wednesday evening at the Obstetrical Society upon the subject of "missed labour," it was evident that the condition so described had not been very generally recognised by the Profession. Never having myself met with a case of "missed labour," and never having seen a satisfactory description of it, I was agreeably surprised, while searching in Celsus with another object, to find a passage which I think shows that accoucheurs in the reign of Tiberius had not only recognised the condition, but treated it very nearly, if not precisely, in the same manner as we would do at present. In the 29th section of his seventh book, Celsus says:—"Ubi concepit autem aliqua, si jam prope maturus partus intus emortuus est, *neque excidere per se potest*, adhibenda curatio est." (But if any woman have conceived and the fœtus have died within the womb when nearly at the full time, and cannot be born spontaneously, curative means must be employed.) We cannot suppose that Celsus meant us to interfere in every case where the fœtus died. He expressly limits his interference to those cases where the products of conception cannot be extruded without assistance, and he is perfectly conversant with the evil influence upon the mother of a mass of putrid matter in her womb. He warns us:—"Neque dum inflammationem cæpisse sed recenti re protinus adhiberi medicinam. Nam si corpus jam intumuit neque demitti manus, neque educi infans nisi ægerrime potest: sequiturque sæpe cum vomitu et cum tremore mortifera nervorum distensio." The treatment which Celsus recommends shows that he is not speaking of cases where the putrefaction of the child leads to mechanical difficulty:—"Medicus unctæ manus indicem digitum primum debet inserere atque ibi continere donec iterum id os aperiatur nursusque alterum digitum demittere debebit, et per easdem occasiones alios donec tota esse intus manus possit." Having entered the uterus, we are directed to bring down the head or the feet, according to the position of the fœtus. If the head be near the os, we are to fix a sharp hook into the eye, ear, or mouth, and use gentle traction, the left hand being still in the vagina guiding the head, and the tractions being made by the right hand. If the fœtus be swollen by putrefaction, the finger is to be thrust into the body so as to allow the effused fluid to escape. If the presentation be transverse, and turning is impossible, we may draw down the body with a hook, and cut through the neck, extracting the trunk and the head separately, the head first. The placenta is to be carefully brought away without rupturing the chord, and the uterus is to be freed from clots.

An accoucheur of the present day would probably dilate the cervix with Dr. Barnes's bags, and perhaps might be inclined to use the forceps in preference to the hook, at least in some cases; but with these exceptions it appears to me that if Celsus had been present at the last meeting of the Obstetrical Society he would have found himself in no way behind the age with regard to the treatment of "missed labour."

I am, &c.

36, Mount-street, Grosvenor-square, Oct. 10. CHAS. G. RITCHIE.

COMMUNICATIONS have been received from—

Mr. R. GRIFFIN; Mr. ALFRED W. STOCKS; Dr. T. INMAN; ROYAL GEOGRAPHICAL SOCIETY; ETHNOLOGICAL SOCIETY OF LONDON; APOTHECARIES' HALL; Mr. J. F. STREATFEILD; MEDICUS; Dr. HARRY LEACH; HARVEIAN SOCIETY OF LONDON; Mr. JABEZ HOGG; Dr. W. J. HODGSON; Mr. J. H. MAXWELL; Mr. LUFF; Mr. CHARLES J. FOX; THE UNIVERSITY OF ERLANGEN; Dr. ROBERT C. BROWN; Mr. JULIUS SMITH; Mr. W. TALLEY; Dr. T. O. DUDFIELD; MRS. M. A. BAINES; Dr. WILLIAM MOORE; ROYAL MEDICAL AND CHIRURGICAL SOCIETY; Dr. ROBERT FOWLER; ROYAL INSTITUTION; Mr. W. CARR; EPIDEMIOLOGICAL SOCIETY; Mr. JOHN CRESSWELL; Dr. H. J. YELD; ANTHROPOLOGICAL SOCIETY OF LONDON; HOPE; Mr. CHARLES HUNTER; WESTERN MEDICAL AND SURGICAL SOCIETY; Dr. W. R. HATRICK.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 29, 1864.

BIRTHS.

Births of Boys, 1044; Girls, 987; Total, 2031.
Average of 10 corresponding weeks, 1854-63, 1751·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	699	710	1409
Average of the ten years 1854-63	558·3	531·9	1090·2
Average corrected to increased population..	..	..	1199
Deaths of people above 90	1	1	2

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa
West ..	463,388	2	5	12	..	1	13	7
North ..	618,210	1	8	19	3	6	14	5
Central ..	378,058	1	6	12	1	5	6	8
East ..	571,158	..	8	19	1	9	16	2
South ..	773,175	5	6	33	1	6	31	6
Total ..	2,803,989	9	33	95	6	27	79	28

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·253 in.
Mean temperature	50·6
Highest point of thermometer	60·2
Lowest point of thermometer	37·9
Mean dew-point temperature	47·0
General direction of wind	S.W. & N.E
Whole amount of rain in the week	0·45 in.

APPOINTMENTS FOR THE WEEK.

November 5. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

7. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

EPIDEMIOLOGICAL SOCIETY, 8 p.m. Address by the President.

MEDICAL SOCIETY OF LONDON, 8 p.m. General Meeting. Dr. Gibb, "On Throat Cough." A. Balmanno Squire, M.B., "On Diseases of the Skin caused by the Acarus."

ODONTOLOGICAL SOCIETY, 8 p.m. Charles James Fox, "On the Preparation of the Mouth for the Reception of Artificial Teeth."

ROYAL INSTITUTION, 2 p.m. General Monthly Meeting.

8. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. Report of the Ethnological Proceedings in Section E of the British Association at Bath. Dr. Short, "An Account of some Rude Tribes, the Supposed Aborigines of Southern India." Rev. F. W. Farrar, "On Fixity of Type."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8 p.m. Dr. Robert Lee, "On the Nerves of the Heart." Dr. Gibb, "On Removal of a Growth from the Epiglottis."

9. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

10. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

11. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

THE OPTICAL DEFECTS OF THE EYE.

A COURSE OF LECTURES DELIVERED DURING THE SUMMER OF 1862 AT THE

Surrey Ophthalmic Hospital,

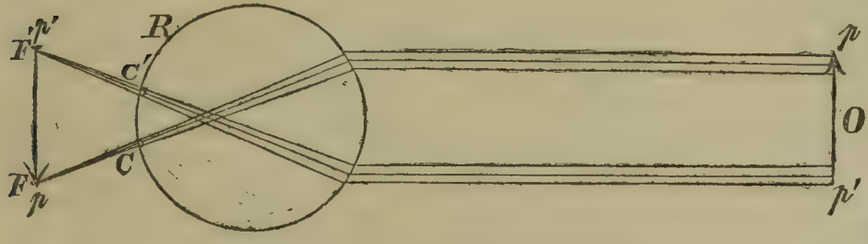
By J. ZACHARIAH LAURENCE, F.R.C.S., M.B. Univ. Lond.,
Surgeon to the Hospital.

(Continued from page 434.)

The two chief anomalies of refraction the eye is subject to are myopia and hypermetropia (a). The former we have discussed at some length; the latter it will now be our task to inquire into, and in doing so I shall, as in the case of myopia, follow the table of diagnostic signs (*supra*) of the eye in a *state of rest*. In *Hypermetropia* :—

(1.) "*Parallel rays are focussed behind the retina.*"—Parallel rays (Fig. 21) from each luminous point (*p*) of a distant object (*O*) tend to a focus (*F*) behind the retina (*R*); if we imagine the tunics of the back of the eye removed, a distinct image of *p* would be formed behind the retina, at (*F*). As it is, however, every luminous point (*p*) of the object is reproduced on the retina as a circle of confusion (*C*), and hence no distinct image of a distant object is formed on the retina.

FIG. 21.



Thus, an hypermetropic eye is deficient in its converging power on the rays of light. As an illustration, I may say that after operations for cataract, the share the crystalline lens takes in this converging power being lost, the eye becomes hypermetropic.

Again, we may artificially convert a normal eye into an hypermetropic one by placing before it a concave lens; a myopic eye into an hypermetropic one by placing before it a concave lens stronger than is necessary to neutralise its myopia. But, as we shall hereafter see, by far the greater number of hypermetropic eyes met with in practice are the result of a congenital conformation of the globe.

(2.) "*The hypermetropic eye in a state of rest is adapted for convergent rays.*"—Although, as we have just seen, the hypermetropic eye has too low a converging power to focus parallel (and *à fortiori* divergent) rays on to the retina, you can readily understand that it may have sufficient to focus rays which are already in a state of convergence before they strike the cornea. Now, as I have before said, the only two classes of rays met with in nature are parallel and divergent ones; but we may confer on either of these any desired amount of convergence by receiving them on a suitable convex lens. Hence the remedy for hypermetropia is a convex lens of such a power as to give the incident rays from objects a sufficient degree of preliminary convergence before they strike the cornea as to enable the eye to effect the additional amount of convergence necessary for the production of a defined, distinct image on the retina.

(3.) "*The far-point of an hypermetropic eye in a state of rest is at a finite distance* (*from the eye*), *and negative.*"—In the normal eye in a state of rest, the focus (luminous point) of rays which, striking the cornea, will be reunited to a focus on the retina, is, as we have seen, positive and infinite, in the myopic eye positive and finite. In the hypermetropic eye rays of light to be brought to a focus on the retina must, before they strike the cornea, in the first instance (by a convex lens held before the eye) be made to tend to (converge to) a focus behind the retina. The higher the power of this convex lens the higher the degree of hypermetropia, whilst, when this power is $\frac{1}{60}$, or less, the eye closely approximates to the normal one. Measuring the focus of these convergent rays from the cornea backwards, we may by a figure of speech (in analogy to the far-points of normal and myopic eyes) say in the hypermetropic eye the far-point is finite and negative.

The *amount* of deficient converging power of the hypermetropic eye—the amount of hypermetropia—is given by the convex lens necessary to produce distinct vision of distant objects. The power of this lens may vary from $\frac{1}{40}$ up to $\frac{1}{4}$; at least, this last is the highest degree I have ever seen (once in a student at Utrecht, and secondly in a case of my own), excepting, of course, an hypermetropic condition of the eye dependent on a cataract operation or a congenital deficiency of the crystalline.

Now, as you perfectly understand, the eye has within itself an intrinsic power of increasing its converging action (in the crystalline). The normal eye has no occasion to exercise this function for distant objects, and therefore it remains in a state of rest. The myopic eye is already abnormally excessive in its converging power, and would therefore, if it could, rather diminish, than increase the convexity of its crystalline.

But, as you might *à priori* have expected, the hypermetropic eye accommodates even for distance, abnormally using a function for distance which a normal or myopic eye only employs for near objects. It in this way avails itself of its power of accommodation to supplement its defective power of refraction. Such an eye is then "never in a state of rest" in the sense we have used this expression. Have we any means of reducing the eye to such a state, and by thus eliminating the element accommodation, estimating the total amount of deficient converging power—of hypermetropia—present? We have: by paralysing the ciliary muscle by the instillation of a solution of atropine (b).

The preceding will become intelligible from an actual example. A young woman required a 40-inch convex glass for the distinct perception of distant objects; after instillation of atropine she could, with the naked eye, hardly see distant objects at all, but could so perfectly with an 8-inch glass. In the first instance her hypermetropia was neutralised by two factors, (1) the $\frac{1}{40}$ convex lens, (2) the increased curvature she herself gave her crystalline lens by contraction of the ciliary muscle—by her accommodation, in a word; in the second instance we destroyed this last factor by atropine, and *then* we found she required, instead of a 40-inch, an 8-inch convex glass. Therefore, she previously accommodated by a quantity equivalent to the difference between these two glasses, viz., a 10-inch glass ($\frac{1}{8} - \frac{1}{40} = \frac{1}{10}$). The *absolute* hypermetropia of such a case is $\frac{1}{8}$, the *latent* $\frac{1}{10}$, the *apparent* or *manifest* $\frac{1}{40}$. There are several circumstances which may lead to the suspicion of hypermetropia; by a low-powered convex glass either improving, or, at any rate, not deteriorating vision for distance, as it would in a normal or myopic eye. In applying this test you must allow the patient to try the glass on for a few minutes, as he has so accustomed himself to accommodate for distance, that he cannot for the moment relax even the very slight fraction of this effort, which the lowest powered convex

(a) The following quotations on the history of this defect of vision may not be devoid of interest. Donders ("Archiv. f. Ophthal." vi., 1, 1860) says:—"Hypermetropia has, up to the present time, been very little studied: the older oculists either knew it not or misunderstood it. . . . The ignorance on this important defect was universal. . . . Even by Ruete (1845) was its existence not known." I here, however, distinctly assert that Mackenzie, in his "Physiology of Vision," p. 150, published in 1841, gives a clear definition of the disease: "but there are instances of the eye being so flat as to require convex glasses to converge even parallel rays to the retina, which is equivalent to a power of bringing convergent rays to a focus." However, no unprejudiced person can rise from the perusal of Professor Donders's admirable exposition of the anomalies of refraction and accommodation of the eye without being impressed with the importance of his researches,—the truly philosophical spirit in which they have been conducted.

(b) As I shall later have occasion to advert to at length, with advancing age our faculty of accommodation diminishes: in old presbyopic subjects this precaution is therefore unnecessary. I may, however, here state I consider even in myopia, with a fair amount of accommodation, it is advisable to first paralyse the accommodation by atropine before determining the reducing glass, as I find patients frequently on first trial prefer too high glasses, and might thus by their use acquire an hypermetropic accommodation, which would necessarily lead to diminution of their normal accommodation and consequent asthenopia. My observation agrees with those of Professor Donders, who has, in a tabular view he gives of the relative range of accommodation of the myopic eye pointed out its excessive positive value for low degrees of convergence of the eyeballs (for distant objects), and the total absence of negative value—so that myopic patients possess no power at all of overcoming the weakest convex glasses for distance. For further information on this interesting subject *vide* "Arch. f. Ophthm.," vi. 1.

glass is intended to supplant. Asthenopia (c) and convergent strabismus most commonly have their origin in hypermetropia. An abnormally distant position of the near-point in a young subject is highly indicative of hypermetropia. Such cases are often misunderstood as "singular instances of presbyopia in young subjects." Their rationale is evidently that the patient using a great part of his accommodation to neutralise his hypermetropia, has a proportionately small part remaining over available for its legitimate purpose of neutralising the divergence of the rays from near objects. A highly-interesting test of myopia or hypermetropia is afforded by the unequal refrangibility of the different coloured rays of the solar spectrum. Many dark violet (or cobalt-blue) stained glasses only permit the blue and red rays of light to pass through them—the highest and least refrangible rays of the spectrum. If a moderately myopic eye regards the flame of a candle or of gas through such a glass, the red rays will be nearly focussed on the retina, whilst the blue ones form large circles of diffusion on that structure; the consequence is such a flame appears to the myopic eye *violet-red surrounded by a blue margin*. To an hypermetropic eye the flame appears *reddish-blue surrounded by a red margin*.

How do we determine what glass is required to neutralise the hypermetropia? As far as I know, this is a mere matter of trial. In the practical treatment of a case you must not at once prescribe this neutralising glass, but begin with the lowest that improves vision for distance, before the eye has been subjected to the action of atropine. (d) For you must remember accommodation for distance has become an instinctive habit, not to be broken by any such rude violence. You will find, if you watch a case, that after a time this habit gives way, and thus by degrees you will have to increase the power of the glasses the patient wears, till such ones are at last reached which completely neutralise the entire absolute hypermetropia present. As in myopia, each eye must be examined separately, and then the two together. Thus, in a case I find one eye had an hypermetropia of $\frac{1}{6}$, the other of $\frac{1}{14}$; whilst, as I believe, for the first time observed, in three cases one eye was normal, whilst the other was hypermetropic.

The question in how far glasses for distance are available for near objects depends (1) on the total amount of accommodation the patient possesses, and (2) on how much of this he habitually expends in the neutralisation of his hypermetropia. This is practically determined thus:—Let the patient (his eyes not being under the influence of atropine) have on the strongest convex glasses he can bear for distant objects; then find with these glasses on the nearest point of distinct vision of a small type. If this distance varies anywhere between 9—5, or less inches, he has a fair amount of accommodation still at his disposal for its legitimate object (the neutralisation of the divergence of the rays), and he may use the same glasses for near as for distant objects. But if the patient's near-point with his distance-glasses on is, say, 20 inches, he has only $\frac{1}{20}$th accommodation at his disposal for the purposes of reading, writing, etc. Let the distance-glasses, *e.g.*, be $\frac{1}{15}$ power; then with glasses of 7 inches focus ($\frac{1}{15}+\frac{1}{8}-\frac{1}{20}=\frac{1}{7}$) the person will be able to read, etc., at 8 inches by using all his accommodation, and at such convenient distances as 10, 11, or 12 inches by only a partial expenditure of that function.

No one could *à priori* form any conception how common a disease hypermetropia is. In 90 cases of abnormal refraction of the eye, I find 47 of myopia and 43 of hypermetropia. The truth is, many of these latter pass unrecognised, and some are mistaken for enigmatical cases of myopia, as the patients not uncommonly hold objects close to the eye to see them distinctly, and yet are not only not improved, but actually made worse, by a concave glass. They do this, I think, to correct the defective refraction of the eye by the consentaneous contraction of the pupil. If you make your own eye artificially hypermetropic by a concave glass, you will find your sight considerably impaired, but may at once restore it by a pin-hole aperture, the rationale of which has already been explained. (e) Donders thinks these patients seek to increase their accommodation by increasing the convergence of the optic axes, but seems to ignore the simultaneous, greatly-increased ratio the divergence of the rays acquires by this approximation of the object.

Independent of the above subjective symptoms, there is one diagnostic objective one of the presence of hypermetropia. The direct image of the fundus oculi may, if the observer's own eye be normal or myopic, be seen without any concave eye-piece. In 25 cases of which I possess ophthalmoscopic notes, I find in 17 the fundus oculi was perfectly normal; in 7 next the optic entrance was a narrow black pigment line; and in 1 a downward "crescent" in each eye. As the eyes of myopic patients are often fuller than natural, so those of hypermetropic ones are more sunken and less.

(To be continued.)

(c) Many asthenopic patients possess such powers of accommodation that they can read very small print at a considerable distance. This is, however, no proof of the absence of hypermetropia; this can only be inferred by a convex glass not improving vision for distance, *after the instillation of atropine*. I may here remark that in this way normal eyes may become very slightly hypermetropic, probably from the atropine destroying the tonicity of the ciliary muscle, and I think I have similarly observed myopia somewhat decreased by the same agent. Of 45 cases of hypermetropia, 17 were males, 28 females; whilst of 50 cases of myopia, the numbers of either sex were precisely equal. This preponderance of the female sex in hypermetropia is probably more apparent than real. The patients were principally Hospital ones, and of these the occupations of females would be more likely to cause them to feel inconvenience from asthenopia (depending on hypermetropia) than those of males would.

(d) However, I have met with cases where the hypermetropic state of the eye was not demonstrable before the action of atropine, so strongly ingrained had become the habit of accommodating for distance. In one case a young woman read with her naked eyes No. 16 easily at 20 ft.! yet atropine revealed an hypermetropia of $\frac{1}{8}$!

(e) The same holds good for the disturbing influence of a convex glass.

ORIGINAL COMMUNICATIONS.

ON

THE TREATMENT OF MALARIOUS FEVER.

By E. HARE,
Deputy-Inspector-General of Hospitals, Bengal.

(Continued from page 487.)

Dr. Johnson first commenced with bleeding. He writes (p. 49):—"The impression on my mind by the above dissection, and the perusal of Dr. Clark's case, Henry Pope, where the determination to the liver and brain is perfectly evident, determined me to try venesection. I had now several down with fever, and I must confess that it was with a trembling arm and palpitating heart that I first opened a vein, expecting to see the patient every instant die under my hands. He did not die, however. Nay, he seemed evidently relieved, and the bleeding was repeated with brisk evacuations. He recovered. I now carried the evacuating plan with a high hand, and with much better success than I expected. Fortunately for my patients, a great majority of them were fresh from Europe, and high in health and strength. These recovered wonderfully after bleeding and evacuations, though not always. But there was on board a class of men whom we had pressed out of ships on their return from India, who had experienced, not only the influence of the climate, but depressing passions arising from hope deferred. These required a more discriminating treatment. Evacuations at the very beginning were necessary, but something more was requisite to clear the congestions from the head and liver. The fluids here were too stagnant to drain off of their own accord, even when a sluice was opened; they required propulsion."

This reasoning, with his own case, and the discovery which he made of the fact that ℈j. doses of calomel act like a charm in alleviating the vomiting in fever, induced him to adopt salivation, and ℈j. doses of calomel, as "the propulsion and something more" which was necessary. His own case was thus, p. 198:—"A very few weeks after my arrival in Bengal, I landed a few miles below Kedgeree, for the purpose of shooting and seeing the country. The day was excessively hot, and we waded through marshes, jungles, and paddy fields, under the broiling sun, till we were fairly exhausted. That night I felt slight rigors or chills, alternated with flushes of heat, but in the morning I got up as usual, and concluded that all was well. At dinner I had no appetite, and soon afterwards I felt uneasiness in my bowels. As the evening advanced I had frequent calls to stool, with griping and some tenesmus, nothing coming away but mucus. Fever now came on. My skin became hot, dry, and parched, and by 11 o'clock at night I could scarcely leave the commode. The misery of that night will never be erased from my memory, and I was often delirious. A Medical gentleman visited me, and found me in a very bad way. I was now passing blood fast, and the fever ran high. I was bled, and took calomel, gr. vi., opii, gr. i., every five hours.

"This day passed easier than the preceding night, but as

night closed, the exacerbation was great, and I was again delirious. Next day I was very weak. The calomel and opium were now taken every four hours, with the addition of mercurial frictions.

"My fever ran higher this day than yesterday, with hot, dry, constricted skin. As night approached my debility and apprehension of the usual exacerbation brought on an extreme degree of mental agitation. The Surgeon endeavoured to cheer me with the hope of ptyalism, which, he assured me, would alleviate my sufferings. As the night advanced, all the symptoms became aggravated, and I was convinced that a fatal termination must ensue. I had no other hope than in ptyalism, for my Medical friend held out no other prospect. I sent for my assistant, and desired him to give me a scruple of calomel, which I instantly swallowed, and found that it produced no additional uneasiness; on the contrary, I thought it rather lulled the tormina. But my sufferings were great, my debility was increasing rapidly, and I quite despaired of recovery. Indeed, I looked forward with impatience to a final release. At four o'clock in the morning I repeated the dose of calomel, and at eight o'clock, or between sixty and seventy hours from the attack, I fell for the first time into a profound and refreshing sleep, which lasted till near midnight, when I awoke. It was some minutes before I could bring myself to a perfect recollection of my situation, prior to this repose, but I feared it was still a dream, for I felt no pain whatever. My skin was covered with a warm moisture, and I lay for some considerable time without moving a voluntary muscle, doubtful whether my feelings and senses did not deceive me. I now felt an uneasiness in my bowels, and a call to stool. Alas! thought I, my miseries are not yet over. I wrapped myself up to prevent a chill, and was most agreeably surprised to find that, with little or no griping, I passed a copious, feculent, bilious stool, succeeded by such agreeable sensations that I ejaculated aloud the most heartfelt tribute of gratitude to Heaven for my deliverance. On getting into bed I perceived that my gums were much swollen, and that the saliva was flowing from my mouth. I took no more medicine, and enjoyed the best of health for some time afterwards."

Such results as these were very common when calomel was used; as I have seen it in numbers of cases, both for malarious fever, and—as this was—malarious dysentery, the result of fever from shooting in the swamps of the Hoogly. The alternate remissions and accessions of the remittent fever, causing the paroxysms of purging are very clearly described by him. In this, as in fever, the paroxysm may be at its height, the patient exhausted and in despair, when suddenly comes on the salivation, and he is safe, well, and feels most delightful sensations. Dr. Johnson thus found the something which he required to propel the too stagnant blood in the abdominal viscera, which he could not drain off by bleeding alone; and, as he experienced in his own case, the moment salivation takes place the circulation is equalised, the skin becomes warm and moist, and the abdominal congestions and resulting purging are removed; the blood passes on again as in health through the capillaries under the stimulus of the salivation state, the febrile struggles of nature in paroxysms against the congestion cease with their cause, and the patient is well.

Here, therefore, another antidote was introduced, producing the same end as bark—viz., the solution and relief of the congestions; for bark also relieves the congestions of fever, and thus stops the paroxysms, which are merely Nature's salutary efforts to overcome them. But bark sometimes could not be given, because it caused vomiting. Mercury could be given at all times. Mercury, therefore, appeared to be the best; and experience only could decide between them. That salivation was used as a specific antidote is evident (p. 51). "Thus immediately after the operation of the cathartic, the mainspring of cure must be acted on. For this purpose five to ten grains of calomel, according to the urgency of the symptoms, should be exhibited every four or six hours till ptyalism is well raised, when, in nineteen cases out of twenty—I might say forty-nine out of fifty—there will be a remission of all the febrile symptoms, and safety secured. It is undoubtedly the *sine quâ non* in the Medical treatment of this fever." Put bark above in the place of calomel, and you have the exact assertion of Lind, Hunter, and Clark. Put cinchonism from quinine in place of ptyalism, and you have modern experience. Again, p. 52, he says:—"Once every day, then, the dose of calomel usually given every four or six hours should be combined with a purgative, which will be sure to bring down a copious alvine evacuation. This will greatly relieve the oppression and tension of the epigastrium, as well as the headache—indeed, so striking is the amelioration of symptoms after these intestinal evacuations, that in two or three instances I was tempted to follow them up, and try if they might not supersede the necessity of impregnating the system with mercury. I trod here on tender ground, and I was forced to measure back my steps, and have recourse in the end to that powerful and invaluable medicine. But in one case I was too late. Warned by this, whenever I combined a purgative with the calomel, I directed a mercurial friction or two, to prevent a halt in the pursuit of my ulterior and principal object—ptyalism." There is no nice calculation here to decide (as Martin directs) from a classified list of medicines, which is physiologically adapted, after the careful weighing of the symptoms of the case in hand. The directions are simple and unique,—"salivate,"—as they were in the former case—"pour in the bark;"—it was, therefore, treatment by an antidote purely. Mercury had, however, been often used in the treatment of tropical fever before Dr. Johnson's time. Wade, in 1791, wrote strongly in favour of mercurialisation, and Dr. Chisholm in 1792. Dr. Robert Jackson says of him in 1798, p. 293, "Calomel alone, or with the addition of different purgatives, has been long used as an evacuant in the cure of recent fever, particularly of the remittent kind, and often with superior advantage; but the discovery of its virtues, as a general remedy, and on the grounds of salivation, is due to Dr. Chisholm." Milne, 1803, says, p. 63:—"He first gave five-grain doses of calomel, but at the instigation of Mr. Liddell he increased the quantity, and then doses I should have shuddered at before became only common prescriptions with me. I now make it a point of making every one's mouth sore as early as possible, with a confidence I was formerly a stranger to."

Dr. Gibson also strongly recommended mercurialisation in Guzerat fevers. It was from these sources, no doubt, that the Surgeon who attended Dr. Johnson told him to expect salivation as his certain cure. The practice, however, of these men was not usual, and as yet the bark treatment of Lind and Clark was the rule, until Dr. Johnson's book and talented review succeeded in repressing it in a very short time; so entirely, that it was never mentioned again but as an exploded error, and with surprise that such irrational treatment could ever have been adopted. The evils, however, of the calomel system soon began to show themselves. A patient could be salivated, generally with apparent impunity, once in his life; but residents in India were liable to frequent attacks of fever, the salivations had to be repeated, and with most deplorable results. Old Indians returned to Europe suffering, not from the climate, but with their constitutions broken by mercury. Before I came to India, in 1839, I met such cases in England. It was found, too, that many cases of the worst form of fever could not be salivated. The mercury remained inert in the stomach, and the skin refused to imbibe it. Enormous doses were then prescribed. Chisholm (a) actually gave 6000 grains of calomel in one case.

Dr. Halliday's description of the horrible effects of the mercurial system in the General Hospital, Calcutta, in 1816, is terrible. He accused openly his colleagues of murder, and they were obliged to appeal to Government and turn him out of Calcutta. Dr. Halliday states that 13,237 grains of calomel were expended in the General Hospital in one month. Throughout the fever wards every one had his spitting-basin, and in the cases (and they were far from infrequent) where salivation was difficult, and very large doses given, if reaction towards recovery took place, the mercury lying inert in the bowels was suddenly absorbed, and the most fearful salivation resulted, with sloughing of the mouth and exfoliation of the jaw. If a patient recovered, with such treatment, from his first attack of fever, how was he to be treated in his second and third, to which all residents in India are liable?

These results of the calomel system at length produced reaction. Inflammatory theories of fever, however, still prevailed, and no one thought of returning to the use of bark. Sir James Annesley, in 1825, first commenced the change in recommending only moderate doses of mercury frequently repeated, with depletion, and especially free and continued purging. He condemned salivation theoretically, though if the cases he has published in his book be examined it will be seen that in his practice most of his patients had their gums made sore. A gradual reaction, however, took place in favour

(a) "Med. Annals," Dr. Ewart, p. 341.

of depletion. Still, in 1826, Dr. D. S. Young writes:—"The great desiderata in the cases of Europeans are to remove congestions by bleeding and blisters, and to establish the mercurial action as soon as possible. To effect the latter indication I have found ℈j. doses of calomel to answer better than small doses frequently given, which increased the irritability of the stomach, without exciting ptyalism, sooner than by Dr. Johnson's plan of large doses, which always stopped vomiting. In bad cases I could observe no symptoms of amendment till salivation was induced, and which I practised in almost every case submitted to my care."

Depletion, however, gradually banished the large doses of mercury. Dr. R. N. Burnard(b) says:—"The treatment I was in the habit of adopting when called to a patient attacked by fever was immediately to open a vein, and suffer blood to flow *ad deliquium*. From twenty-five to forty ounces is the quantity usually required, but I had no hesitation in going beyond this when circumstances demanded it." With Dr. Twining, however, the bleeding system culminated. In 1834 he says:—"Blood-letting is the most important and efficient remedy which we possess in this fever, and employed early it not only arrests the most dangerous symptoms, but it prevents embarrassment in the future treatment and renders other remedies more effectual and certain. Europeans of unimpaired stamina suffering from a severe attack should be bled to ℔iss. —℔ij. as soon as possible. The blood-letting should be performed when the patient is in the recumbent posture; twelve grains of calomel and as much extract of colocynth should be given soon after the bleeding, and followed by infusion of senna with salts in six hours. If there be much thirst, with any degree of dryness of tongue, gr. ij. tartarised antimony are to be dissolved in a pint of water, and a tablespoonful given regularly every hour, and not much other drink. The solution of tartar emetic, if used after the bowels have been cleaned out, may be estimated as next in efficacy to the lancet. In four hours after the first bleeding, if the fever continues, the vein is again to be opened, and blood taken to the extent of eight, twelve, or twenty ounces. In eight hours more, if the symptoms be not much abated, a third bleeding should be ordered; but if the pyrexia be moderated with only headache, or morbid heat of the forehead continue, leeches are to be applied to the temples. For proofs, says Dr. Ewart,(c) of the extreme to which Twining carried out these principles in his own practice, see cases 166, 169, 170, 171, 173, and 175, pp. 305—338; and for detailed evidence to the same tenor, in regard to his treatment of the 'insidious congestive fevers of the cold season,' see cases 177, 178, 179, and 118, pp. 369—383. Neither Sydenham in the seventeenth, Jackson in the eighteenth, nor Johnson at the commencement of the nineteenth century, carried venesection with a higher hand than did William Twining at the beginning of the fourth decade of the nineteenth century at the unhealthy capital of British India."

Numbers, in fact, of his patients, plainly and evidently as described by himself, died from exhaustion. As a specimen of this depleting system,(d) the following details are given of a bad remittent fever:—

A Mr. B. was bled to ℔ij. at 9 a.m. July 9, 1834. At 2 p.m. of the same day ℔ij. more were abstracted, and an enema of salt and oil was administered. After sitting in a tepid bath for half an hour, ℈j. of calomel was given. At 9 p.m. 15 grains of calomel, opii gr. j., extr. colocynth gr. xv. were administered. On the morning of the 10th, castor oil ℥j. At 7 a.m. 16 ounces of blood were taken away, and antimonial wine in camphor mixture was prescribed. At noon eighteen leeches were applied to the right side. At 9 p.m. the patient was bathed in perspiration, and a blister applied to the epigastrium. The patient expired at noon on the 11th. On the post-mortem examination all the organs were pallid and blanched. The spleen (e) was gorged with blood, and crumbled to pieces on being handled.

We are further informed in the report that in all severe cases of continued fever, venesection was freely and repeatedly employed at the commencement, followed by ℈j. doses of calomel immediately, and these by doses, night and morning, of calomel gr. x., colocynth gr. xv., with a purge of compound jalap at noon. Leeches and blisters were useful towards the end of the case.

(To be continued.)

(b) Dr. Ewart, p. 351.

(c) P. 357, No. 14, *Indian Annals*.

(d) In the 7th vol. Calcutta Medical and Physical Society's *Transactions*, p. 367-372.

(e) I will note, in passing, that this most extreme depletion did not remove the congestion of the spleen; or, in Dr. Johnson's words, p. 50, "The fluids here are too stagnant to drain off of their own accord; even when a sluice is opened, they require propulsion."

CASES OF SOFTENING OF THE BRAIN AND SPINAL CORD.

By JOHN W. OGLE, M.D., F.R.C.P.,
Assistant-Physician to, and Lecturer on Medical Pathology at, St. George's Hospital.

(Continued from page 117.)

Case 34.—William T., aged 46, admitted December 18, 1862. He was somewhat intemperate, and seven weeks before admission had swimming in the head followed by an attack of unconsciousness. On recovery the limbs on the *left* side of the body were found paralysed as to motor power; but the sensibility of the skin remained intact.

On admission slight power of moving the left arm existed: the hand was œdematous. The left leg was quite powerless. Pain in the head and dimness of sight were complained of. Speech unaffected. Pulse quick and soft. Tongue clean. Bowels open. Urine highly albuminous. Shiverings came on, and increased headache and dimness of sight, followed by snoring sleep and stupor. Under the use of purging and salines he, however, became quite conscious again. Later on a peculiar sensation of "coldness" came on, which lasted some time; and this was followed by paralysis of the sphincter ani. He became affected by convulsive seizures and screaming, and died January 13.

Post-mortem Examination.—Cranium: Brain generally "wet;" ventricles contained a slight amount of fluid. A portion of the base of the "*right*" cerebral hemisphere (the horizontal surface of the posterior and middle lobes behind the Sylvian fissure) was in a very softened and spongy condition, the grey matter being much withered. Posteriorly the softening was about one inch in depth; towards the anterior part it became gradually more shallow. Blood-vessels at the base of the brain natural. *Microscopical Examination.*—The spongy part alluded to contained a large number of opaque spherical bodies of a very granular nature, some containing distinct oil globules; also many blood-vessels containing granular matter, like that forming the spherules. Thorax: Heart weighed 19¾ oz. Abdomen: Kidneys large, white, and mottled. Spleen contained a large fibrinous mass in its substance.(i)

Case 35.—Charles S., aged 33, admitted December 24, 1862. A stout well-built man, of intemperate habits, having had syphilis not long before, and having been treated for dimness of sight. During the night he had a "fit," and was found in the morning to be speechless and without power of moving arm or leg on the *left* side.

On admission he was very reticent, but could answer questions, though he soon wandered in mind. No facial paralysis existed. Power in moving left leg existed, but to a very slight degree. Left fore-arm flexed on to the arm, and biceps resisting extension. Pupils of eyes active, the *left* one the largest. Evacuations passed involuntarily. Full pulse. Skin hot. Ordered aperients and diuretics. Epileptiform seizures supervened on January 1, and during their occurrence both arms, but chiefly the paralysed one, were rigidly flexed and power of speech lost, but there was no distortion of the face, and there was complete reflex action of the eyelids. For some hours these attacks continued. He then became stertorous, and slowly died January 2, 1863.

Post-mortem Examination.—Cranium: Much fluid in sub-arachnoïd tissues. Extensive yellowish-grey softening of the middle lobe of the right cerebral hemisphere (size of orange) existed. The softened parts contained a large number of granular spherules besides blood-vessels, nerve-cells, etc. Arteries at base of brain atheromatous, and the *anterior communicating artery was plugged up by fibrine*. Rest of body not examined.(k)

Case 36.—Sarah O., aged 59, admitted August 6, 1862, with supposed disease of the kidneys and hæmaturia, having been ill eight months in a general way, and having noticed the urine to be dark. Bladder complications ensued, and indications in the urine of carcinomatous disease looked for in vain, but renal casts were abundant. Dull aching pain at the lower

(i) See "Hospital Post-mortem Book." 1862. No. 15.
(k) See "Hospital Post-mortem Book," 1863, No. 2.

part of the spine complained of. Emaciation extended, though the blood in the urine diminished under the use of gallic acid and opium. The blood again became excessive in the urine, and in December a number of epileptiform seizures came on, and she died January 24, 1863.

Post-mortem Examination.—Cranium: Great softening of the *white* central part of the *left* cerebral hemisphere, chiefly middle lobes, without change of colour—also similar softening and to a greater degree, of the opposite (the right) cerebral hemisphere. The cortical part of the brain where the white parts sub-adjacent were softened, was narrower than usual, and of a yellow colour and rather softened. Cerebral vessels natural. Thorax: Masses of recent soft fibrin found attached to the aortic valve-flaps; mitral valve thickened. Abdomen: Kidneys very fissured, granular, and cysted. Extensive carcinoma of the bladder found. Other organs natural.(l)

Case 37.—Daniel H., aged 46, admitted December 5, 1863. Intemperate in habits. Day before admission had four epileptic attacks, and afterwards became delirious. Relieved by morphia, but was left nervous and shaky. One month afterwards another fit came on, the right side chiefly being affected; and afterwards almost daily slight tremors came on, with sweating and pallor of the face, almost resembling ague. No albumen was found in urine, but some dysuria existed. Wildness of manner came on, and a bewildered look. Subsequently, violent convulsive attacks came on, chiefly of the left side of the face and left limbs.

The urine accumulated in the bladder, and had to be drawn off. The fits continued until death, which occurred February 12.

Post-mortem Examination.—Cranium: Cerebral veins distended, and brain full of blood; ventricles distended with clear fluid, and their lining membrane rough and thickened. Superficial softening of both the thalami optici existed. Cysts in the choroïd plexus. Vessels at the base of the brain natural. Thorax: Lungs congested, emphysematous. Heart large. Abdomen: Fatty liver. (m)

Case 38.—William B., a hard-working cattle dealer, and very intemperate, began in the summer of 1859 to complain of giddiness, inability to walk straight, and loss of memory. He was also subject to headache. For some time he was relieved by rest, alteratives, and the use of steel. At the latter end of November he was seized with complete hemiplegia on the right side; the mouth was much drawn over to the left side; the tongue protruded to the right; had difficulty in articulating, but was quite sensible to any remark addressed to him. This attack went off in great measure within twenty-four hours; three days subsequently weakness and dragging of the right leg only remained, and power of articulation had nearly returned.

A few days later paralysis had returned much more completely; all the symptoms before noted were much aggravated. He was semi-comatose, and if roused looked wildly round, but did not seem to understand a question, nor could he return any answers.

He continued in this state for a day or two; the coma then disappeared, but the vacancy of mind and inability to speak remained. If spoken to, or if he wanted anything, he could only say "mir, mir, mir," and this he repeated many times over. He gave no sign whatever of recognition of the persons about him, and appeared insensible to external conditions.

The galvanic current failed to excite the muscles of the right arm and leg so much as those of the left side.

In January, 1860, he was the same in all material points; he had no power over the limbs, nor was there any increase in mental intelligence; power of speech still the same. Seemed almost idiotic, and passed the urine and fæces in bed without making any sign whatever. If moved against his will, he became perfectly furious. Paroxysms of a maniacal nature came on without any apparent cause, and the excitement lasted for several hours at times. He would then shout out at the top of his voice, throw all his clothes off, refuse to take food, and strike blindly at things and persons within reach; these periods of excitement had their corresponding states of depression, lasting sometimes for many days.

In March he was still much the same. Tonic contraction of the fingers of the paralysed arm had been noticed for some little time, and were progressing; and he had had jaundice more than once, followed by diarrhœa. Maniacal excitement as before. He seemed to recognise some of those about him, but had no idea of what was said to him, and would not obey (probably did not understand) any request made.

In May he was much worse, becoming much emaciated, with bad nights; the arm was flexed, and the muscles perfectly rigid; the leg lay loose and helpless.

He died exhausted on the 15th.

Post-mortem Examination Twenty Hours after Death.—Rigor mortis still present. The head only could be examined, and it was with difficulty that leave was obtained for this. The skull was uniformly thick and dense. Dura mater thickened and adherent along the line of the Palchionian bodies, which were very large. Arachnoïd and pia mater membranes were opaque over both hemispheres, and at the base of the brain exhibited very evident traces of meningitis; effusion of organised lymph existed, so as almost to conceal the optic commissure. The arteries were almost uniformly seats of atheromatous deposit, and some of the larger branches were thoroughly unyielding tubes. The right cerebral hemisphere showed on section numerous bloody points, but neither softening nor clot in any part. The left hemisphere was sunk below the level of the right one; membranes thoroughly opaque and surface irregularly puckered and depressed over the central portion. The upper $\frac{1}{3}$th of the hemisphere exhibited numerous bloody points on section; and directly over the roof of the lateral ventricle, and extending externally to it and outwards so as to involve the convolutions, the knife cut through a mass of yellow pultaceous material with a darker mass in the centre, perfectly soft, easily washed away by a stream of water, and containing in its interior a small, irregularly-shaped, and blood-stained cyst, the size probably of half an ordinary walnut. This morbid change extended into and involved the corpus striatum, but the optic thalamus, though apparently rather softer than the right optic thalamus, did not seem to be involved. The softening extended through fully one half in bulk of the hemisphere.

P.S.—I am indebted to Dr. Newman, of Stamford, for the history of this interesting case.

(To be continued.)

(l) See "Hospital Post-mortem Book," 1863, No. 12.

(m) See "Hospital Post-mortem Book," 1863, No. 43.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

DOUBLE HYDROCELE CURED BY DOUBLE IODINE INJECTION—CLINICAL REMARKS.

(Under the care of Mr. CURLING.)

[Reported by J. H. GRAY.]

J. B., aged 45, joiner, admitted April 19, 1864. The history from the patient was as follows:—About six years ago he strained himself by jumping off a bench with a heavy piece of wood in his hand; the scrotum began to swell a day or two afterwards, and he has had a hydrocele of the left side ever since. It had been tapped four or five times, and injected twice with a solution of sulphate of zinc. Nearly two years ago a seton was introduced and kept in three weeks, and the last tapping was a week after its removal. He had also had a smaller hydrocele of the right side about six weeks.

On the day after admission the man was brought into the theatre, and while he was standing Mr. Curling tapped both sacs, and drew off eight and a-half ounces of straw-coloured serum from the right side, and eighteen ounces from the left. As the patient did not feel at all faint, he remained in the upright position, and Mr. Curling then injected into each sac about two drachms of tincture of iodine (composed of iodine, ℈ij., and iodide potassium, ʒss., to an ounce of rectified spirit). Mr. Curling allowed this to remain in a minute or two before withdrawing the canula, and then partly emptied the sacs, leaving about a drachm behind in each sac. The man did not appear to suffer much pain during the operation, after which he was sent to bed, and the scrotum was supported by a crutch-pad.

In three or four days there was considerable resecretion of serum, without a great deal of inflammation. The fluid was more quickly absorbed on the right side, where no operation had been previously performed, than on the left, where there seemed a tendency to a return of the hydrocele.

Mr. Curling discharged the patient on Friday, April 29, directing him to come back in a month or six weeks, and in the mean time to favour the cure by keeping quiet.

He visited the Hospital on July 19, and was examined by Mr. Curling, who found both hydroceles quite cured.

Mr. Curling remarked that it was the practice formerly in double hydrocele not to inject both sacs at the same time, because it was thought that the effects of a double operation might be too severe, and because the injection on one side has been known to succeed in curing both, by the extension of the inflammatory action from one sac to the other. Dupuytren records an instance of this after an injection of wine. Mr. Curling has latterly injected both sacs at the same time with excellent success. The effects of the operation on the system have not been greater than in a single operation. The success in this instance from a strong iodine injection was the more remarkable because the hydrocele on the left side was not only very large, but had been twice treated with sulphate of zinc injection, and once with a seton without curing the complaint.

MIDDLESEX HOSPITAL.

PHTHISIS—CARIES OF SEVERAL VERTEBRÆ AND NEURALGIA OF THE ARMS.

(Under the care of Dr. GREENHOW.)

J. B., AGED 56, valet, married, admitted as an out-patient October 30, 1863. Of spare habit, and of sallow, unhealthy aspect. Face and chest studded with small red lichenous patches of several years' standing. Had rheumatic fever nine years ago, and has been liable to catarrh commencing with coryza, but otherwise had been healthy until the commencement of the present illness rather more than a year ago. About that time he began to suffer from severe pain across the chest, particularly towards the lower part. In July severe and almost constant pain supervened in the lower part of the occiput, and soon afterwards dyspnœa, accompanied by slight cough and scanty expectoration of thick greyish coloured mucus. On presenting himself at the Hospital, besides the above symptoms, he complained of severe pain extending from the occiput and upper part of neck downwards to the right thoulder and upper part of arm. Several cutaneous veins about the shoulder and right side of chest were enlarged and distended, as was also the right external jugular vein. On the outer side of, and slightly overlapped by, the right sterno-mastoid muscle was a small hard tumour surrounded by several large cervical glands. Patient's general appearance was that of a person suffering from malignant disease. Shoulders rounded, chest anteriorly rather flat, expanding less in right than in left sub-clavicular region. There was extreme dulness on percussion over right side of chest, from clavicle downwards to margin of third rib, where it terminated abruptly, and also in right supra-spinous fossa. There was, moreover, slight deficiency of resonance in lower part of right side of chest posteriorly, and anteriorly in lower and lateral part of left side. Respiration in right supra-spinous region and below right clavicle very tubular, but perfectly free from moist sounds. Pulse 86, small and compressible; respiration tranquil; skin cool; bowels regular; urine normal. ℞ Syr. ferri iod., ʒj.; aquæ menth., ʒj. M., t. d. s.

November 24.—Dulness on percussion, and respiration as before, excepting that there is now occasional crepitation below the outer extremity of right clavicle. Glands on right side of neck much increased in size, as high as angle of jaw, and there is now obscure fluctuation in the tumour near the lower attachment of the sterno-cleido mastoideus muscle. Pain of neck and shoulder continues, and has gradually spread downwards to the elbow, and finally to the wrist. There is also great tenderness on pressure over the supra-spinous fossa and also along the course of the median nerve. Pulse 96.

December 1.—Admitted as an in-patient. The extreme and well-defined dulness below right clavicle downwards to third rib, and also in supra-spinous fossa, remains as at first report; but there is now moist crepitation for two inches below right clavicle. Fine crepitation is also heard over a limited space in left axillary region. Cough more troublesome. Expectoration very scanty, consists of thick, tenacious, semi-transparent green mucus. An irregular swelling, commencing between the sternal and clavicular insertions of the sterno-cleido mastoideus muscle, and apparently passing behind the clavicular insertion of the same muscle, occupies the right side of neck for two inches upwards, and backwards as far as the trapezius muscle. There is evident fluctuation in the tumour, which feels tense, but is neither discoloured nor painful on pressure. Patient complains less of pain in neck, but much of pain from the right shoulder down inside of arm, and outside of fore-arm to fore-finger. Has occasional tingling in fingers. Pulse 84, small, compressible; respirations 25; skin cool; tongue clean; bowels confined; urine acid, sp. gr. 1014, free from albumen. Pt. hst. ol. morrhuæ, ʒij., ter die.

10th.—Tumour in neck was punctured with a grooved needle, and discharged thin pus with minute shreds of strumous lymph.

(The tumour increased again in size after the healing up of the puncture, and was opened a second time more freely, after which it never healed up again. After remaining six weeks in the Hospital, and improving somewhat in health, he was discharged about the middle of January to be again an out-patient, and his condition varied little from that time until the beginning of April. He did not lose weight, and the physical signs showed no material change, excepting that the crepitation below the right clavicle was sometimes entirely absent for a week or ten days together, and that the position of the finer crepitation in the left lung changed from time to time. The pain in the right shoulder and arm continued, and was sometimes felt in the other arm also. He was readmitted into the Hospital on April 15 in consequence of retention of urine requiring the use of the catheter.)

April 15.—Physical signs scarcely differ from report of December 1. Occasional cough, with very scanty, tenacious expectoration. Wound at lower part of neck on right side is still discharging pus. Complains much of pain between shoulders, and shooting down both arms; also of tingling in all the fingers of the right hand, and in forefinger and thumb of left hand. Is very sleepless, and disposed to wander at nights. Pulse 92; respirations 26. Bowels confined. Has passed very little urine during last two days. About a pint of dark-coloured urine drawn off by catheter, acid, sp. gr. 1022, free from albumen. Pil. saponis c. opio. gr. v. o. n. Haust. acid. nit. mur., ʒj.; tinct. hyos., ʒss., M. t. d. s.; ol. balenæ, ʒij., ter die.

18th.—Respiration below right clavicle tubular, in right supra-spinous fossa almost cavernous, over rest of lungs harsh and sonorous. Scanty, coarse crepitation below right clavicle. Very fine crepitation at base of left lung anteriorly, and coarser crepitation near left nipple. Frequent cough, which prevents him from sleeping well at night. Expectoration scanty, muco-purulent, and occasionally tinged with blood. On examining the spine there is tenderness, with deep-seated swelling on right side over the three upper cervical vertebræ. The head can be rotated but little towards the left side, but more freely towards the right. Marked tenderness, unattended by swelling in right supra-spinous fossa, and by sides of dorsal vertebræ. Middle dorsal vertebræ are slightly convex backwards. The lower dorsal are concave, and a single upper lumbar spine projects. The projecting dorsal spines are tender when jarred or struck. Patient cannot turn over on either side unassisted on account of pain in shouldeas and chest. Pulse 80, small, compressible; respiration 24. Bowels confined. Catheter required to be used twice daily. Pt. cat. lini nuchæ.; pulv. jalap, co. ʒij. cras mane.

23rd.—Has slept little on account of pain in lower part of abdomen, which is always relieved for an hour or two by the use of the catheter. Bowels have acted involuntarily. Urine sp. gr. 1010; highly alkaline; contains a very copious stringy deposit, which, under the microscope, is found to consist mainly of pus. Pulse 100, small, feeble. ℞ Infusi diosmæ, ʒjss.; vini. ipecac., ɱx.; tinct. hyosc., ʒss. M. 6 tis. horis sum.; ol. balenæ, ʒij. ter. die.; suppositor, c. gr. i. ext. opii, o.n.

26th.—Urine has been constantly dribbling away since yesterday; that drawn off by catheter same quality as last report. Complains of some numbness of feet and legs, and there is increased tenderness over one of the dorsal spines. Pulse 84.

30th.—Crepitation in left lung as high as nipple. Dulness on percussion in right infra-clavicular region, exactly as at last report, where also coarse crepitation is occasionally heard. Pulse 84. Still complains of pain in bladder.

May 11.—Dulness in right infra-clavicular and supra-spinous regions as in former reports. Cough much less troublesome than formerly. Expectoration very scanty, thick, and of a dark green colour. Tumour in neck nearly gone, but a sinus remains discharging pus. Still has pain in shoulders, and complains of tingling in right hand. Pulse 88. Still has no control over bladder; urine continues to dribble away, and now and then comes in a stream without warning; that drawn off by the catheter is still highly ammoniacal, and loaded with pus. Sp. gr. 1015.

After this diarrhœa came on, and he gradually sank and died on May 21, without any material change in the other symptoms.

Post-mortem Examination.—Body somewhat emaciated. On the right side of neck a sinus which led upwards and backwards to bare bone at the side of the third cervical vertebra. Very firm adhesions at the apex of right lung, extending downwards to the second right intercostal space; a few fibrous bands at the apex of left lung; rest of pleura free from adhesions; the apex of right lung was solidified, very dense, intersected by interstitial fibrous tissue, and contained several small cretified deposits, and one cheesy mass the size of a bean; the intervening pulmonary tissue was collapsed, and of a deep black colour. There were a few patches of more recent tubercle in lower part of upper lobe and a few scattered tubercles in lower lobe; patches of miliary tubercles scattered through both lobes of left lung. The liver was attached to the diaphragm by soft recent adhesions. On separating these the peritoneal surfaces were found to be studded with minute, partly opaque, partly transparent, granular tubercles; the surface of the liver was granular, the whole organ small, and on section it presented a surface composed of small, yellow granules of various sizes, separated by thick lines composed of fibrous tissue. Under the microscope the yellow granules were found to be liver-cells, much pigmented and containing a large quantity of oil. The spleen was enlarged and attached to the diaphragm by soft lymph, and its peritoneal surface was studded with tubercles resembling those on the liver; splenic tissue very soft. The solitary glands and Peyer's patches in the lower part of ileum were enlarged and prominent, and many of them infiltrated with yellow tubercle, but there was no ulceration. Right kidney one-third its natural size; near the upper end was a depressed cicatrix, from which bands of fibrous tissue passed into its interior. Renal substance granular. Left kidney double the natural size; capsules somewhat adherent; surface granular. On section the cortex was somewhat granular and very dense. On removing muscles from posterior surface of spinal column, a collection of pus was found deeply seated on the right side of third and fourth cervical vertebræ, the arches of which were rough and denuded of periosteum. At the bottom of this abscess were several loose pieces of carious bone, and one of larger size, which appeared to be a considerable portion of the transverse process of the third cervical vertebræ. There were also some loose pieces of bone and a small quantity of pus on the left side of the same vertebræ. Some blood was effused into the muscles passing down on the right side from the transverse processes of the upper cervical vertebræ. The spines of the third and fourth lumbar vertebræ were rough and nodulated, and the tendinous insertions injected. On removing the arches of the vertebræ, and taking out the spinal cord, the inter-vertebral substance between the third, fourth, and fifth cervical vertebræ was found to be in great part destroyed, and the bodies of these vertebræ were hollowed out into a cavity filled with pus and fragments of bone; this was separated from the canal by the thecæ vertebralis, which was here adherent to the dura mater. In the middle of the dorsal region the posterior surfaces of the bodies of three vertebræ were hollowed out to a small extent, and the cavity contained some pus; this was likewise covered by the thecæ vertebralis. There was here no pus external to the bones. The spinal cord itself was in every respect normal.

WESTMINSTER HOSPITAL.

SEVERE COMMINUTED FRACTURE OF RIGHT CLAVICLE, AND SIMPLE FRACTURE OF LEFT CLAVICLE—RECOVERY.

(Under the care of Mr BARNARD HOLT.)

H. F., AGED 38, moderately stout and healthy, and by trade a carpenter, was admitted as an in-patient on September 2. Whilst working between two deal stacks, one of them, weighing about 2 cwt., fell, striking him on the left shoulder, knocking him down, and crushing him against the adjoining stack. On examining him after admission, it was found that both clavicles were broken; the left one had sustained a simple fracture between the conoid and trapezoid ligaments, and there was therefore scarcely any displacement, whilst the right one was severely comminuted about its centre, and one of the pieces of bone was nearly protruding through the skin. The man also received some injury about his abdomen, and was unable to pass any urine. The fractured clavicles were treated with a figure of 8 bandage, a large pad of lint being placed on the projecting pieces of bone of the right clavicle. The urine was drawn off twice every day, and patient was placed on his back on a mattress for three days, and then allowed to sit up in a bed-chair. He was at first put on low diet, but on the third day stimulants were added; he was also freely purged.

September 7.—Patient complains of slight pain in his abdomen, and a difficulty in breathing. Ordered pulv. opii., gr. $\frac{1}{4}$, every four hours.

10th.—Pain nearly all gone; going on favourably.

11th.—To-day, for the first time, he was able to pass water of his own accord.

29th.—Progressing favourably. Ordered emplast. opii., 4 × 3, to be put on the projecting part of right clavicle.

From this date there was nothing fresh to note, and on November 1 patient left the Hospital with both fractures consolidated.

HULL INFIRMARY.

EXCISION OF THE KNEE-JOINT—RECOVERY.

(Under the care of Dr. KING.)

[Reported by Mr. T. M. EVANS.]

JANUARY 29.—A small and slightly built man, aged 24, in pretty good health, having been walking about, though unable to work, till a week ago. Ten years since he had a fall upon the joint and bruised it, but suffered no permanent ill consequences, and it is only during the last two months that he has been lame. Right knee-joint rather swollen, bent at an angle of about 135°, and capable of only very slight motion, which causes pain; the whole limb wasted. Emp. lyttæ genu. Pot. iod., gr. v. ter die.

February 20.—Not being any better, the actual cautery was applied on each side of the joint under chloroform.

March 2.—Healthy granulating sores left after the separation of the sloughs. The joint still very painful.

April 6.—Sores healed.

20th.—The joint continuing painful, and the limb being useless because incapable of extension, excision was performed with a single transverse incision, the articular surfaces of the femur and tibia, and the patella being removed. Rather free hæmorrhage; the limb laid in a McIntyre's splint, extended to a straight line, and the heel raised about eight inches above the bed.

The articular surfaces on the inner side much diseased, the semi-lunar cartilage ossified and rough, fixing the two bones together. The outer side less diseased, the cartilage being softened and only slightly ulcerated. Patella firmly fixed to the tibia by fibrous tissue.

21st.—Slight fever, but no sickness nor other untoward symptom. Hst. am. acet. ter. die.

23rd.—Has less fever, and takes his food; free escape of pus from the wound.

27th.—The centre of the wound has healed, pus escaping at the sides. Some starting of the limb at night.

May 14.—Splint changed; good apposition; less purulent discharge.

28th.—Firm union of the bones; very little discharge.

June 15.—Wound quite healed. Limb put up in starched bandage, with pasteboard before and behind the joint.

18th.—Allowed to get up; walks well with crutches, and can bear a considerable weight upon the limb. The bandage afterwards causing some uneasiness, from pressure upon the cicatrix, it was removed, and another reapplied a fortnight afterwards with a double pasteboard splint at the back of the limb only.

July 23.—Can walk without crutches, and with slight lameness, the limb being little more than an inch shorter than its fellow, though the bones removed together amounted to quite two inches.

SYMES'S AMPUTATION—DEATH—SECONDARY PURULENT DEPOSITS IN THE LUNGS.

(Under the care of Dr. LUNN.)

[Reported by Mr. T. M. EVANS.]

Jeremiah S., aged 22, policeman, admitted May 20, for strumous disease of ankle-joint. Health indifferent; great emaciation, but no cough nor appreciable lung disease. Ankle-joint much swollen, with several sinuses, through which a probe can be passed deeply into the tarsus. The disease began spontaneously eight months ago, and he has been in the

Infirmary before, but left because he was unwilling to allow any operation. Since then his health has much deteriorated.

May 25.—Symes's amputation was performed under chloroform. The ankle-joint and other articulations of the astragalus showed very extensive disease, the cartilages being ulcerated and bones carious in many places. Suffered much pain after the operation, and vomited once in the evening. Hst. effervescens c. tr. opii., ♏. xxv.

26th.—Still in considerable pain; tongue furred. Rpt. hst.

27th.—Is feverish and frequently sick; had a rigor in the afternoon, for which brandy was administered. Stump dressed and looked pretty well.

28th.—Considerably worse, and has had four severe rigors; occasionally sick. Mist. pot. cit. 4tis horis; soda water *ad lib.*; brandy ℥vi.

29th.—Rather better; one rigor only; stump discharging.

June 3.—No more rigors till to-day, when he again had one, but soon recovered.

5th.—Two severe rigors, followed by fever and profuse sweating, which latter lasted all day. Quinæ gr. ij., 4tis hôris.

6th.—Pulse improved, but the bed quite soaked with perspiration; no appearance of granulations in the stump.

9th.—Had another rigor.

12th.—Much worse; pulse rapid and feeble; tongue dry; coughs frequently, and has had another rigor. Mixed crepitation at the back of left lung, with dulness on percussion.

14th.—Died at noon.

Post-mortem Examination.—Stump in a very foul state, the bone exposed for an inch; flaps retracted and bare of granulations; pus burrowing up the limb. Both lungs, especially the left, containing collections of pus in many places, varying in size from a pea to a nut, most numerous immediately beneath the surface. Left pleural cavity containing about a pint of serous fluid, and the lower part of the lung covered in several places with fresh lymph; a few calcified remains of tubercle in the apices of both lungs. Intestines extensively connected by old inflammatory adhesions; also many enlarged mesenteric glands consisting of, or filled with, chalky tubercular matter; no recent mischief. No pus in any of the joints, nor observable disease of the veins.

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Medical Times and Gazette.

SATURDAY, NOVEMBER 12.

ARMY MEDICAL DEPARTMENT.

Our readers will have read, probably, in the advertising columns of this and other journals, that there will be a competitive examination for the above Department on February 20 next.

We all know what Dr. Johnson said of Lord Chesterfield—that he was a lord among wits and a wit among lords; and we suspect that it is capable of application yet, with a slight variation. A man may be accounted wise among military swells—great and small—at the Horse Guards, but be his Royal Highness only outside that edifice.

The Duke of Cambridge thought fit to address the candidates at Netley a few weeks ago, and he gave them some advice, couched in very commonplace language, by the way, which may pass for wisdom perchance among the high personages at the Horse Guards, who disdain to employ ordinarily good English in the composition of their official documents. The advice was not needed; it contained as little that was at all new as it did of another little word which would end the sentence with a rhyme. We may be pardoned if we follow in the Royal road, and ask young Medical men, fresh from a perusal of the advertisements, whether they intend to be "fools?"

Really, we can scarcely command our indignation when we read the ridiculous declaration—which the candidates must be "fools" if they believe—that any Medical officer wants military command. We have had some experience of military Medical men, and there is not one of them who does not disclaim and repudiate the thing as ridiculous. The Duke is wise to assume a fiction as a fact, for a man must have something like facts to reason upon, even if he be a Field Marshal of Royal blood.

We take our stand upon a very simple ground, and it is this—Do the members of the Medical Department, from the greatest unto the least, obtain the consideration, the pay, position, and good faith which are due to gentlemen and members of a liberal Profession? We contend they do not, and we declare that we have heard of many occurrences which can bear but one construction. The Royal College of Physicians, we learn, is inquiring into the matter, and the Committee ought to know by this time—difficult as it is for anybody to get at the facts where those only who can communicate them are afraid to do so—whether they can recommend members and licentiates of their body to enter the Royal or Indian armies. The Horse Guards accuse us of deadly enmity to them, and rightly so! As long as we have the interests of our Profession at heart, as long as we have an atom of ambition or a desire to occupy the position of gentlemen, and receive a fair remuneration for our work, so long must we deplore the position of our army and Indian brethren, and warn young men of the actual state of affairs. The "moral courage" which causes them to cast aside our warnings is their affair, not ours. If his Royal Highness is the friend and well-wisher of the Department that he says he is, then, Medical officers would prefer to be under the *régime* of an enemy—that is all. The Duke of Cambridge knows well enough what the Department owes to his friendship, and that of the pleasant little bureaucracy over which he presides; he best knows whether he has supported the Director-General at home and the Medical heads abroad; he knows whether he metes out the same measure to his combatant and his so-called non-combatant officers alike; he knows the strenuous exertions which the Horse Guards made to maintain intact the Warrant of 1858; he knows the state of the Department now, and what it was under the late Mr. Alexander, and no one can tell so well as his Royal Highness how much of the difference may be debited to his friendship; he knows how many official and confidential memorandums have emanated from his office, and how much the last edition of the Queen's Regulations was in accord with the clauses of the Warrant, and how far these things have been done for the purpose of bettering the position of the Medical officers and cultivating their confidence in him and the Horse Guards; and yet he would believe them to be such "fools" as not to be able to learn their own interests and the result of his long-tried friendship.

But let us put aside the Medical officers altogether, and ask, What does the Profession say as a body? This is the answer:—It is a matter of wonder how Medical officers can be found for the Army at all, much more such men as earn Victoria crosses in the field, or die by pestilence at Bermuda in succouring their combatant brethren, who repudiate them when well.

The facts are these—simply these: Twenty or thirty years ago, our Profession was not what it now is, and the members of it that entered the public services were not the best examples of it, even then, while the combatant ranks were recruited

from men who had wealth and birth, if they lacked brains. What is it now?—or rather, what was it shortly after the publication of the Warrant? for the authorities have refrained from nothing to make the service distasteful to the good and well-bred young Medical men, and fit only for the Professional failures of 30 and 40. It is proverbial that the army no longer attracts the class of men it did; those who have the wealth and lack the brains can't enter, and those who have the wealth and brains won't. We shonld have thought that the evidence of these things must be as patent to the Duke's vision as the hands of the clock at the Horse Guards. How has it been with the Medical Profession? It has been rapidly progressing in quality, in intelligence, attainments, and social position, and *diminishing* in point of numbers. The Horse Guards may take our word for that fact, as more within our cognizance than theirs. Now, is it, or is it not, due to the friendship of the Duke of Cambridge, that Dr. A—— is to be distinguished by invidious distinctions from his younger brother, a Lieutenant A——, of the —th Foot? The thing is absurd, and it is only in some regiments, we are told, that the distinctions are enforced, while the better regiments—the scientific corps—in practice rise superior to the theory.

Let the Duke of Cambridge and Sir Chas. Wood turn their glances to India; for how long did the Medical officers there shudder in the cold shade which their aristocratic friendship threw over the Indian Medical Department? It was a manifest and a gross injustice that these Medical officers, recruited from the *élite* of our schools, should have derived no benefit whatever from the Royal Warrant of 1858; and what has Sir C. Wood done by his new Medical Warrant for this long period of neglect, but "benefited almost every Medical officer in India, in the way of diminishing his income." We do not desire to call names; to designate any men as the "sweepings" and "scourings" of the Medical schools, but the fact is patent enough that no man is so bad but that he may not try his chances at an army examination. Dr. Parkes knows how far we speak the truth, and how far it is due to his philanthropic efforts and influence that the services are not deluged with these men. The officials at Netley can only know how far the mental calibre and moral qualities balance the weight of that "moral courage" which the Duke extolled in the candidates; if there be this due adjustment, they are very inferior men. But is not the "moral courage" point of view all moonshine? Does the Duke think us black-coated Doctors possessed of so little knowledge of the world—such "fools," in fact, as to believe it? The Duke may take our word for it that most of the seventy-eight candidates were carried into the Department far less by the force of moral courage than by the pressure of something of a very different sort, and the belief that, after so dark a night, the dawn would appear. Of course, we have no right to blame them, however much we must lament the consequences. But what have these seventy-eight candidates effected by this display of moral courage? We will tell them:—Effectually barred the door to all amelioration of the condition of men at least as good as themselves—men who have had the experience which they are about to purchase.

To conclude. If fair, just, and reasonable concessions be made, the February examinations will be crowded with good candidates, and until this be done we will only say——well, we might be threatened with a prosecution, perhaps, and so, warned by what we heard of after a Professor had the audacity to speak out what was on the lips of most, and in the hearts of all—we leave the conclusion to be drawn as each one desires.

A Modest Pension.—A decree of the King of the Belgians has fixed the pension of M. Vleminckz, Inspector-General of the Army, at 6000 francs, he being above 55 years of age, and having passed forty years in the public service, and more than ten of these in his present office.

THE WEEK.

H.R.H. THE PRINCESS LOUIS OF HESSE.

We are happy to learn from the bulletins issued by Dr. Priestley and Dr. Weber that H.R.H. the Princess Alice has rapidly and uninterruptedly recovered her health and strength. On the 4th inst. both mother and baby were so well that the Physicians announced that daily bulletins would no longer be issued.

THE DISPUTE BETWEEN THE CORPORATION OF THE CITY OF LONDON AND THE GOVERNORS OF ST. THOMAS'S AS TO THE STANGATE SITE FOR THAT HOSPITAL.

The Lord Chancellor has given a judgment in the dispute between the Corporation and the Governors of St. Thomas's Hospital; but the case appears to present to the lawyers as much difficulty as they often twit members of our Profession with discovering in Medical cases. The Lord Chancellor seems to confirm in the main the Vice-Chancellor's decree, and deplores the amount of litigation the case has given rise to; but finds that certain technicalities stand in the way of his giving a final and positive decision. He directs, therefore, that the matter shall be again brought before him; but hopes that in the meantime some arrangement may be come to out of court that may facilitate the final settlement of the dispute.

MEDICAL CERTIFICATES FOR MAGISTRATES.

Whilst at first sight it may seem an injustice to extort from a Medical Practitioner without payment, under the threat of an enforced attendance at a police court, a certificate as to the condition of an injured person for the information of a magistrate, we yet cannot but regard it as a mistake on the part of the Surgeon to refuse one. We may allow an abstract right of refusal; but we are certain that it is neither a politic nor a graceful course for a member of our Profession to take. Almost all classes contribute in some way gratuitously to working the machinery of justice. The Medical Profession are exempt from serving on juries, and if no further demand is made on their time than the occasional furnishing a certificate as to facts, we do not think they can complain. We have no doubt that both the Surgeons in the following cases were actuated by a sincere desire to support the standing of their Profession, but we cannot but think their zeal for a Professional right led them into error:—

"At the Worship-street Police-court, on Monday last, Thomas Hogan, 50, a journeyman tailor, was charged with assaulting a woman who is now in St. Bartholomew's Hospital.

"The assault took place a fortnight ago. Broome, 156, of the City force, said the woman was still in the Hospital, and unable to appear.

"Mr. Abbott, who appeared on behalf of the prisoner, handed in a receipt the injured woman had given for money the prisoner's friends had paid her as compensation.

"Mr. Ellison said that, notwithstanding this receipt, he should not feel justified in acceding to such a request without hearing what the woman had to say in explanation, or knowing to what extent she had been injured. Had the officer brought a Medical certificate from the Hospital?

"Broome said he had not. He had asked the Surgeon in attendance upon her for one, and he had refused to give it, saying that they were not compelled to give these certificates, and that if their evidence was required they must be summoned to give it. He had had many of these Hospital cases, and had never been refused a certificate before.

"Mr. Ellison said he should be very sorry to expose Medical men to the inconvenience of coming there from time to time, as such cases as these were remanded. There were many cases in which a Medical certificate of the patient's state was highly necessary, and the officer must take care to let the Surgeon know that a certificate was received in order to save Medical men the trouble of personal attendance.

"The officer said the prisoner was a quiet, respectable sort of man.

"Mr. Ellison accepted his recognisance.

"On Saturday there was a case in which a Surgeon not attached to a Hospital had also refused to give a certificate,

and said if his evidence was wanted he must be summoned to give it.

"Mr. Safford, the clerk, said he thought this refusal arose from the Home Secretary allowing payment in certain cases of the Surgeon's fee where no other provision existed for its payment and a certificate was furnished by the magistrate that the Medical evidence was absolutely necessary; but it was entirely a matter of favour on the part of the Home Office, and not a matter of course, as when prisoners were committed for trial.

"The Magistrate assented to this, and thought the Medical man in that case would not object to furnish a certificate if he understood that it was quite competent to a magistrate to enforce his attendance on one not being furnished."

MR. TALLEY AGAIN.

Since we last noticed his sayings and doings, the self-constituted champion of the public against the infringers of the Medical Act has twice figured before the world. The first case, reported by us last week, was heard at Uxbridge, before a section of the "great unpaid" in petty sessions; the second, the result of which is recorded in our impression of to-day, was presided over by the recently-appointed but able and excellent stipendiary magistrate, Mr. Flowers. The proceedings before the rural tribunal seem to have been of a foggy and indefinite character. The effect of the summoning officer's deposition as reported was, that he had served the person called Dr. De Roos, who, when he found the policeman was not a patient, denied that he was the doctor, and said "he had other work to do than attend any summonses." Accordingly the defendant did not appear, but nevertheless the usual course of immediately adjourning the summons for the accused to be brought up on a warrant was not resorted to. The proceedings were continued for two or three hours, and were considerably embarrassed by the presence of a Mr. Robinson. Some time was spent in ascertaining for whom this gentleman appeared—in fact, the question does not seem to have been clearly solved. It could hardly have been for the defendant, since Mr. Robinson stated that he did not know whom Mr. Talley had summoned. With regard to the London case, we cannot say that the experience derived from former failures seems to have much benefited the prosecution. The evidence does not seem to have been more apposite, or the addresses to the Court more relevant than on the previous occasions, and for the sake of the cause which Mr. Talley seems to have so much at heart, we hope we shall hear of no more similar unsuccessful attempts. Mr. Flowers in dismissing the summons gave an admirably clear and concise statement of the law as bearing on these cases, which we hope future prosecutors will bear in mind. "A man might practise," he said, "and might be a skilful Practitioner without being registered. He had a perfect right to refuse to register. By doing so he exposed himself to certain disabilities. He could not recover fees by an action at law; and he could not hold any situation under Government; but he was not liable to penalties unless he represented himself as being registered, or falsely and knowingly assumed titles to which he had no right."

THE TRIAL FOR MURDER IN SWITZERLAND.

A case of alleged poisoning has lately been decided in favour of the accused parties at Berne, which seems, from the imperfect account that has reached us, to have been one of great Medico-legal importance. The deceased, a M. Trümpi, was attended by one Dr. Demme, for suppurating bubo. He died suddenly, and suspicion attached to his Medical attendant and to his widow. Chemical evidence proved that a large quantity of strychnine—eight grains and a-half—was found in the stomach and intestines of deceased. Deceased it was proved had frequently threatened to commit suicide, and the large quantity of strychnine found, we think, favoured the idea of suicide rather than that of murder. On the other hand, it was shown that Dr. Demme had given a false account of the symptoms present before death. The case was remitted by the Procureur-General to the College of Health, and they decided that although Demme had acted unprofessionally in publishing a false report as to the cause of death, there was a doubt as to whether the case was not one of suicide. The Medical College appear to have acted here as assessors aiding the constituted judges, and so far to have discharged a legitimate and most useful function. An article in the *Times* of November 9 states that they found that Trümpi died *from apoplexy* produced by strychnine; but this, we should think, must be a reporter's error. Demme and Madame Trümpi were acquitted, but the former was mulcted in half the costs of the trial.

FROM ABROAD.—THE MEDICAL CONGRESS AT LYONS AND PARIS—A LONG SLEEP—NEW CUPPING INSTRUMENT.

Medical Congresses have been held in most parts of the Continent this autumn—viz., Germany, Hungary, Switzerland, Spain, Italy, and France. This last took place at Lyons, some 300 Practitioners attending it, and it seems to have been a somewhat laborious affair, that judicious amount of recreation which is combined with the harder work at the English and German meetings being defective; in fact, too much was sought to be done in a week, a programme of twelve subjects, which discussions for a month would hardly exhaust, having been determined upon before the Congress met. This laying down beforehand the subjects to which attention is to be restricted is a very questionable procedure, repressing spontaneity of action, giving undue prominence to certain subjects (and on this occasion those in which the Lyons school has taken most interest occupied conspicuous places), and omitting others of not less importance, though less strongly patronised. After all, these congresses are mere talking bodies; but a meeting has just been held in Paris by a body having more directly practical aims in view—viz., the General Association of French Practitioners. This is, indeed, a very business-like body, having for object the defence of Professional rights against the encroachment of quackery, the maintaining of a brotherly *esprit de corps* and the provision for the necessitous. M. Rayer, the President, addressed the meeting in eloquent terms, and gave an excellent account of the good which the Association had already done, and the larger sphere of influence opening to it. The founder and leading spirit of the Society is, however, its secretary—Amédeé Latour, editor of the *Union Médicale*—and the Medical press may well be proud of having one of its members so well endowed for the conception of a grand project and possessed of the energy to carry it to a successful issue, and the eloquence calculated to recommend it to attention. It is scarcely five years old, and yet extends its ramifications by means of local associations through seventy-five departments, fourteen only remaining unenrolled. It has been the means of protecting the moral and Professional interests on every side, and has frequently successfully intervened in the prosecution of charlatans and illegal Practitioners, and as an umpire where disputes have arisen concerning fees. Its financial condition is excellent, having a capital of more than 377,000 francs to fall back upon; it has on several occasions stepped forward to succour those of its members who have become unfortunate, and has constituted itself the guardian of several children left unprovided for; it has also organised a retiring fund to secure an asylum for those who, in the decline of life, find themselves in a destitute condition. On the present occasion, one of the members has proposed that the Association should take upon itself the duty of commemorating the celebrities in Medicine, commencing with a subscription for the erection of a statue to Laennec. A committee has been appointed *ad hoc*. We are always talking about the French not being a "practical" people; we should have some trouble to show among ourselves a society having and attaining these ends.

M. Blandet, a French provincial Surgeon, communicates a remarkable case of prolonged sleep, which he says is authenti-

cated by several of his colleagues, who frequently had the opportunity of seeing the subject of it. A young, well-made woman, when in her 18th year slept for forty days, and again, after her marriage, in her 20th year, for fifty days. Immoveability and insensibility were complete; and as there was complete abstinence, with powerful contraction of the jaw, an incisor had to be removed in order to allow of some milk and broth being passed in. Four years afterwards, on Easter day, 1862, she became again insensible, and so remained for a twelvemonth to March, 1863, with the exception of the eighth day, when she awoke and ate at table, falling asleep again in her chair immediately afterwards. The sleep was deep, so that all stimuli, however applied, forced walking, riding in a rough carriage, etc., failed to arouse her. The pulse was slow, and the respiration scarcely sensible; there were no evacuations, while the freshness of the complexion and the *embonpoint* remained. Such is the narrative; and if the patient slept, her Doctor dreams some unintelligible explanation as to the preservative and dynamic power of sleep, with which we need not trouble our readers.

M. Damoiseau, of Alençon, gives an account to the Academy of Sciences of the effects of an instrument (the description of which is not furnished) which he has used for several years for cupping, termed by him a *térabdelle*, and through the agency of which he is enabled to draw blood as rapidly from the capillary vessels as by opening a vein with the lancet. The blood which starts from the simple scarifications flows upon an average at the rate of sixty grammes per minute. Such continuous flow is not obtainable by means of the ordinary cupping-glass, because the suction is only once produced, and is followed by the immediate formation of a coagulum; but in this machine, by the agency of a piston, the suction action is repeated as often as required. Not content with his invention (which much resembles, it seems to us, the ordinary exhausting pump attached to a cupping-glass), the author gives us his theory of its action. "While the cupping-glass produces hæmospasia or congestion of tissues, which is a morbid condition, the *térabdelle*, by its in turns active and passive influence, imitates the perpetual to-and fro of inspiration and expiration, of the systole and diastole of the heart, and the arterial pulsasations." However this may be, he declares that "his instrument is a valuable agent where local bleeding to a considerable amount requires to be rapidly effected."

REPORT ON CHEAP WINE.

(*By our Special Empirical Commissioner.*)

(Continued from page 502.)

Now I must come to the question, What do we mean by CHEAP wine? and in order to discuss this we ought first to ask, What do we mean by *wine?*

Wine, it will be said, is the fermented juice of the grape. If what most people understand by wine were no more than this, we should have very little trouble. There is abundance of it to be had, cheap, well flavoured, and wholesome. Unluckily the British public, as a whole, does not like *wine per se;* but is accustomed to, and looks out for, and grudges if it does not get a liquid in the shape of wine, to which so large a measure of brandy has been added that the quantity of alcohol which exists in the fermented juice of the grape is doubled. Besides, many wines receive an addition of grape juice concentrated by boiling, so as to give colour, sweetness, and substance, with disadvantages to match.

There are two reports presented to Parliament—one called "Extracts of any Reports of an Inquiry under the Authority of the British Government in the year 1861 into the Strengths of Wine in the Principal Wine-growing Countries of Europe;"(a) the other bears the title "International Exhibition Report to the Commissioners of H.M.'s Customs of the Results Obtained in Testing Samples of the various Wines exhibited, with a General Abstract of their Average Strengths, etc.,"(b) and the contents of both deserve to be thoroughly well known to the Medical Profession. They are difficult to be got; but abstracts of them are to be found in the appendices to Mr. Denman's book on "Wines," and to Mr. Shaw's. The tale they tell is unanimous and unmistakable. It is that the quantity of alcohol in *pure wine* may in round numbers be assumed to be 20 per cent. of proof spirit. Mr. Keene tested 569 samples at the International Exhibition from Italy, Germany, Australia, and France; and in the foregoing year the English Commissioners of Customs sent representatives into all the wine-growing countries of Europe to collect undisputed specimens of natural wine from the cellars of the original producers before any brandy whatever had been added. Mr. Ogilvie was sent to France and Switzerland; Mr. Douglas, to the Rhine Provinces, Bavaria, Hungary, and Austria; Mr. Bernard, to Spain and Portugal; and Mr. Davis, to Italy and Sicily. The unanimity of results carries an overwhelming weight with it. Take France first. The heaviest, or most alcoholic, French wines are the most southerly. There was in the International Exhibition a red wine of Narbonne with 25·9 per cent. of proof spirit; white Bergerac from Dordogne, 27·2; red wine of 1822 from Puy de Dôme, 25·9; wines of Avignon, 25 and 27; St. Peray, L'Arlèche, 27. But these are rare figures amid a general run of 18; whilst amongst the *clarets*, or wines of Bordeaux, Department de la Gironde, out of 56 samples there were only three at or above 25, and these were all white wines—viz., a Sauterne, 25·9; Barsac, 27; and Ste. Foy, 27·2. When we look through Mr. Keene's report on the wines which were sent to the International Exhibition from almost every country *except Spain and Portugal* (from which *no samples were analysed*), we shall see that, although from Southern countries, as Italy and Algiers, the average is a little higher, and on the Rhine and Moselle somewhat lower, still the fact remains that of the 569 samples of liquid sent to the International Exhibition as *wine* from France, Italy, Germany, Austria, and our own colony of Australia, the average—all, in fact, but a few exceptional specimens—yielded 18 to 22 *per cent.* of proof spirit.

These wines, be it observed, were sent by the growers. The evidence they give is corroborated to the utmost by those samples which were fetched and taken at the places of growth by the Assistant-Surveyors of the English Customs that we have mentioned above. These samples were in every case authenticated as natural fermented juice of the grape, not mixed with any additional brandy; and these are the figures which indicate their strengths:—

	Average Strength.
FRANCE:—	
Burgundies,—*e.g.*, Mont Rachet, Chambertin, Volnay, Beaune, Pouilly, etc.	21·5
Macon and Beaujolais	20·8
Côtes du Rhone—St. Peray, Hermitage	22·
Department du Gard	24·3
Hérault (considered the strongest wines in France)—St. George, Narbonne, Grammont, Piquepoul, etc.	20·7
Claret—*i.e.*, Bordeaux, Medoc, Grâves, Barsac, St. Emilion	17·75
SWITZERLAND:—	
Crepi, Ferney	17·
RHINE PROVINCES:—	
Rudesheimer, Marcobrunner, Sparkling Hock, etc.	21·9
BAVARIA:—	
Riesslinger, etc.	21·3
HUNGARY:—	
Buda, Szexard, Menes, Arad, Tokay, etc. (N.B. The Menes and Arad wines were stout and much above the average; *i.e.*, 23, 24, 25, and one 28.)	21·8

The above are the countries from which our supply of *wine*—natural wine—is procured. Now let us turn to Spain, Portugal, and Sicily. Let us see what is the percentage of spirit in the natural wines of those countries, according to Mr. Bernard:—

	Natural Wine.	Wine slightly fortified.	Wine fortified for English market.
SPAIN:—			
St. Lucar, Vino Fino, Sherry	27·0	—	—
Xeres, Sherry	27·2	30·7	—
St. Mary's, Amontillado	32·3	29·4	35·7
Montilla	31·7	—	—
Valdepenas	27·	—	—
Valencia	27·2	—	28·6
Benicarlo	23·9	—	31·3
Alicante	28·9	—	—

(a) Ordered by House of Commons to be printed April 29, 1862.
(b) London, 1863, No. 6448.

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	Natural Wine.	Wine slightly fortified.	Wine fortified for English market.
PORTUGAL :—			
Port (average of nine samples of natural wine from different growers) . .	23·5	—	—
Port slightly fortified . .	—	33·6	—
Ditto for English market .	—	—	35·4

Here I must pause for a moment to quote from Mr. Bernard the history of one sample. It was taken from the stores of Mr. Harris, of Oporto, and made in 1834 by Mr. Forrester, on the French system, without a drop of brandy, the wine being bottled the moment fermentation was completed. The wine was in perfect preservation, but was not saleable in London, being considered poor and harsh.

Respecting the wines of Italy and Sicily, no sample was procurable of Marsala, but all other evidence shows that the wines reputed the strongest contain only 20 to 22 per cent. of proof spirit; all beyond are mere exceptional specimens.

Now, in order fully to appreciate any question about cheap wine, we must fully realise the distinction that exists in composition, properties, uses, and doses, between what I will venture to call *virgin wine*, the refreshing beverage that a man *drinks at a draught*, with its 18 to 22 per cent. of proof spirit, and *strong*, or fortified wine, the stimulating dram, which he *sips*, pregnant as it is with its 35 to 45 per cent. of spirit. The two things differ *toto cælo*.

That port, sherry, Madeira, Bucellas, Marsala, Cape or South African wine, together with some southern French wines, are *fortified* largely is notorious. I shall quote next week Mr. Denman's and Mr. Shaw's observations on port. Mr. Brande's classical Table, made forty years ago, of the quantity by measure of *rectified* spirit, sp. gr. 825 at 60° F. in various wines, describes port, Madeira, sherry, as having an average percentage by measure of twenty-two parts of *rectified* spirit; whilst Champagne, Burgundy, and claret possessed not quite 13 per cent. The analyses by Bence Jones in the appendix to his Translation of Mulder, 1857, all tell the same tale—port, sherry, Madeira, about 19 to 22·5 per cent. of *absolute alcohol*, equal in round numbers to double that quantity of *proof spirit;* some *Manzanillas* and *Amontillados* reckoned among sherries so low as 14 to 17; hocks and clarets about 10. These fine Amontillados and Manzanillas answer to the strength of natural unbrandied wines.

Why should this brandy be added, and why should we not have natural wine from Portugal, Spain, the Cape, and the South of France? The true empirical philosopher never sneers at or pooh-poohs facts, or suffers himself to believe that a common practice is utterly purposeless. Brandy is added at various stages. Sometimes early in process of manufacture *to check fermentation*, and preserve a large quantity of the saccharine and extractive matters of the grape from change, and to prevent the wine from becoming rough and harsh. This is done, says Mr. Bernard, to some sweet sherries, intended as "mother wines," also universally to ports. In the next place, it is added during the "rearing" of the wine, to prevent any revival of fermentation; thirdly, it is added before shipping, to prevent injurious change during the voyage; and lastly, on its arrival in England, it is added here abundantly, on a variety of pretexts—none, however, bespeaking the goodness of the wine or the good taste of the consumer.

Of the fact that wine is fortified by the shippers or growers for the plain reason that it will not bear travelling there can be no doubt, and many a friend of mine would have saved himself from loss and vexation if he had been fully convinced of the empirical doctrine that most civilised men have good reasons, so far as they go, for even bad things that they may do. For example: Friend A. spent last winter at the Cape. Tasted wine, light, dry, delicious, pure, and unbrandied. Ordered a cask. Gets it home; finds he has to pay the 2s. 6d. duty, indicating that it has lost its virginity as wine. It is now a hot, strong, heady South African, and I pray that it may do long penance in wood and bottle before I am asked to partake of it. Friend B. was travelling in the South of France. Got most delicious light wine. Could drink a bottle at dinner with pleasure and benefit. Wondered why we could not get such wine in England. Calculated that by rail, steamer, and all, it would cost under 1s. 1d. a bottle. *Never could see why* wine should be brandied; it was against reason. Had a cask sent home. Has never produced any to his friends, and feels it rather a sore subject. Wine evidently not producible. There is a wine on my list of samples which seemed promising—the *Capri Bianco*. It is just what English society wants, a light, sub-fragrant wine of little strength, wholesome, and without the acidity which ladies and others who love the fortified wines complain of so much in pure wine. I got some from E. Brun at 30s., which was far too dear, and some of the same wine at Fearon's, in Holborn, for 16s. It would have filled a great gap; but, alas! it did not keep.

Now, what is the type of a wine that travels? Bordeaux—the very idea of whose wines fills one with visions of refreshment and fragrance. So *clean*, too, are they. But the wines that do not travel well are those of the South of France, of which Roussillon is a type; Spain, all the sherries *but the finest*, and the ports. And why?

Mr. Bernard, whilst describing the wine-growers of Spain and Portugal as manufacturers rather than as producers, and as adding a quantity of spirit that produces an intoxicating rather than an exhilarating beverage, says that the growers and shippers all believe that their natural wines will not maintain themselves sound without addition of spirit. His examples to a certain extent justify the practice. "I was informed," he says, "by Col. Barrie, British Consul at Alicante, that a friend of his had recently shipped a large quantity of wine with only three or three and a-half gallons of spirit per pipe added at the time of exportation (no spirit having previously been used), and on arrival in England the whole was found to be completely spoiled."

But he also makes the following statement, which I pray my readers to print on their minds, for it contains a maxim, both material and moral, applicable to all things and to all conditions of life whatever. "It is certain that amongst *the finest* wines of which I obtained samples in Spain, as being pure natural growths, such, for instance, as those of Montilla, averaging 31·7 per cent. of proof spirit, also five samples from the districts of St. Lucar, Xeres, and St. Mary's, averaging together 28·8 per cent., there are qualities of body, soundness, and spirit sufficient apparently, with ordinary care, to preserve the wines in any climate, and even during a voyage by sea, such wines being not unfrequently imported, 'though not to a large extent.'" It does not matter whether it be wine, beer, or raspberry jam, or a common loaf of bread, the art of making what shall *keep* consists in the due proportion of ingredients, the cleanliness and care of the process, and in the elimination of ingredients that carry with them a proneness to decay. The very first-class sherries of the sort that Mr. Bernard mentions have doubtless little or no brandy added; they are well and thoroughly fermented and clean—let me add, they must be dear at present, and so don't come under my topic of cheap wine. Further, there is a something to be said on the other side. People of coarse tastes no more like the first-class dry, pale, unbrandied sherries than they do "claret." They call claret sour, and fine sherries thin, watery, bitter, and poor. I have seen the finest dry sherry rejected by ladies, at table, in favour of a coarse, grape-syrupy, brandied liquid. Its 35 per cent. of proof spirit is not enough for some palates; and as for flavour, they hate it. They want something hot and strong. Moreover, not all Montilla will keep. Mr. Hammick, of Pall Mall, used to call on many Medical Practitioners, to recommend this wine, and did us a great service. We want some one to shake up the steady old wine merchants, and induce them to give us something new. One sample I had from him went bad.

Nevertheless, don't let me be supposed to be railing at good sherry, even the brandied. If the spirit be added artistically, and a certain proportion of old mature wine, and it be carefully reared, and kept long enough, we have an admirable, soft, dry wine, that contains nothing fermentescible, and is one of the best drinks for dyspeptics. Moreover, I would rather drink wine containing a certain proportion of brandy than a fermentescible wine. It seems certain that all but the driest and best sherry will not keep as at present made; moreover, many people don't like the best; therefore, the addition of brandy is inevitable, with men (or women) and things as they are. They will mend in time. Mr. Shaw tells us that the sherry drank in London would not be relished at Cadiz. No more is the wine relished at Cadiz liked in London.

Now, I hope I have, without too much tediousness, cleared my way. We have divided wine into two classes: the natural (mind, I am not assuming that there is never any fortifying or blending of "claret," but I must speak broadly), or wine of about 20 per cent. proof spirit; and the stronger, which is at least 35 or more; and as the pure original kinds of this are

not "cheap," we may speak of it in the lump as fortified. The definition of cheapness we agreed upon was not more than 2s. 6d. per bottle. And here it is clear that the fortified wines have this advantage. Supposing cost to be equal, it must be cheaper to use the fortified, of which the dose is about four ounces, or two glasses, than the natural, of which we should drink eight, ten, or twelve ounces. Moreover, when a bottle of the fortified is opened it can be used little by little, and will keep pretty good for weeks; whereas it is usual to finish up the natural wine the same day. Of course, careful people cork up a bottle tightly and use it next day, but it is not thought to be *comme il faut*. Amongst the grievances which the Emperor Napoleon raised against Sir Hudson Lowe, Governor of St. Helena, one was that the allowance of wine was so scanty that his suite were obliged at times to cork up a bottle of wine and make it do duty twice.

But if fortified wine be cheap, I must confess that it is not nice. On the other hand, the man who really loves *wine*, who can appreciate that divine flavour which distinguishes wine from other liquids, and which constitutes its real value, can get good, well-flavoured, natural wine on very easy terms. There is no better division of wine than into that fit to put before a gentleman and wine that is not. Now if a man has a duke to dine with him, he may give him a bottle of ordinary Bordeaux, if good of its sort, clean and well-flavoured, without a blush, although that wine may not have cost twenty pence per bottle. But I should be sorry to put before a gentleman any of the cheap fortified wines.

We will begin with these. I am incessantly asked if I can recommend a cheap wine, which shall be a substitute for port or sherry. Of course the question implies an absurdity: it is like asking for a flimsy Geneva watch at £10 as a substitute for an English one at £30. If the substitute equalled the original, it would soon rise in price. We shall see presently what are the parts and properties to be looked for in wine, but may say here that whereas good port wine possesses an exquisite and exhilarating flavour, which refreshes the nose the moment the cork is drawn, the cheap fortified red wines, which might pass for port to the eye, are usually destitute of flavour. Such wines are the South African port and the red wines of the South of France.

There is a *South African port*, a sample of which was sent me by a friend who bought it at Gilbey's, Oxford-street, at 9s. 6d. per gallon. My note is, "Clean soft wine, sweetish, not astringent, qualities negative, no flavour." Wine of this sort looks like port, but lacks its glorious perfume; it is sufficient praise for it that it carries nothing disagreeable or unwholesome with it. The friend who sent it me drinks a quarter of a pint of it every night at bed time; he is 82 years old, and has some very fine old wine in his own cellar.

Roussillon is another wine that does duty for port. The class of wines I am now treating of is not a favourite subject with me, and I never yet tasted a Roussillon that I liked. Of one specimen at 28s. per dozen, from Wood's, 132, New Bond-street, I note,—"Sweetish, on the whole palatable; not hot; yet wanting in vinosity, and having a peculiar earthy flavour of its own."

Roussillon (from a shop in Soho), 20s. per dozen,—"Acid, terribly rough and coarse; undrinkable." I believe this not to have been brandied.

Roussillon (sample from a friend who bottled it a year ago), total cost 20s. per dozen, paid 2s. 6d. duty. "Coarse, strong, vulgar wine; made me sleepy and headachy."

Roussillon.—Rutherford, 41, Wigmore-street, 30s. per doz. "Sweet and strong, would be liked by women and children; without character and vinosity."

Roussillon, part of the stock of Messrs. S. and R. In quantity can be got for 18s. per doz. Said to be 1858 wine. "Some crust in bottle; cork well tinged, and showing crystals of cream of tartar. First impression, clean, *not hot*. Not too acid. Very astringent; might be called austere. Austerity leaves an unpleasant earthy taste behind it. A little flavour." I believe this to be an honest specimen, and that it would do good service to a purchaser. But, alas! purchaser won't buy this as it is: he insists on giving double the price for it, when sweetened and brandied, and converted into public-house port at 4s.

Château Neuf du Pape.—Rutherford, 41, Wigmore-street, 24s. "Strong, not too acid, a little astringent, might soon be relished; many good qualities, though a little coarse." This is one of the South of France wines, and, like Roussillon, is doubtless fortified both at home and for exportation. I have on several occasions recommended economical patients to send for this wine, and believe that the Practitioner or patient who desires a cheap substitute for port might go farther and fare worse.

Como.—Denman, 20, Piccadilly, 28s. Described in Denman's list "as a red wine resembling young, full-bodied, and rich port." It is a strong sweetish wine, lacking, alas! the port flavour; tastes to me as if it had been (like many other strong wines) sweetened with grape juice, and becomes turbid on adding water. It deserves trial, and if kept it would very likely improve. A young wine must be allowed *time*.

Santorin.—Denman, 20s. Is a wine of port-wine colour, which ought not to come here, because apparently a natural wine, but it might be a very useful substitute for port, because its colour is like tawny port, and it appears a clean, light-bodied, agreeable wine, that I can drink and give my friends with their mutton without a blush.

(To be continued.)

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF LINCOLN.

(Continued from page 499.)

THE LINCOLN COUNTY HOSPITAL.

Practice of the Hospital Continued.

The operation of excision of the elbow-joint has been performed five times by Mr. Sympson during the past five years. Each case has terminated very favourably.

Last year an instance occurred showing how much may be done to preserve a limb, even when a case seems to proceed in a most unpromising manner, after resection of the elbow. In the early part of 1863 Mr. Sympson excised the elbow of a girl 17 years of age, removing an unusually large amount of bone; after remaining some time in the house she was sent home for the benefit of country air, but on her readmission in November her health was greatly impaired, and there was a very copious discharge from numerous sinuses about the elbow. Laying these freely open, he scooped out, with the aid of the gouge and bone-forceps, a considerable quantity of diseased bone. She was made an out-patient on January 22, 1864, and now has a useful limb, though anchylosed at the elbow at nearly a right angle.

A very interesting case, in which ligature of the external iliac artery was performed by Mr. Lowe, occurred in the Hospital last year. The patient suffered from aneurism of the left femoral artery, and, the application of pressure being found ineffectual, Mr. Lowe tied the external iliac by Sir Astley Cooper's method. No blood was lost, and the operation was performed with great quickness and skill. From September 14, the day of the operation, until October 20 all went on well, but in the night of that day the patient was disturbed by the report of the firing of a gun outside the Hospital. He awoke with a jerk, and at one a.m. on the 21st he suffered from sudden hæmorrhage, and died at half-past five. A preparation, which is in the museum, shows that the lower end of the artery had been closed by a firm clot, but the profunda unfortunately had its origin very high up, above the aneurism, and no clot had formed in it. Another case of great Surgical interest was under the care of Mr. Broadbent in the same year. A man was admitted into the Hospital on January 11 with a pulsating tumour in the middle of the left thigh. Of his own accord he left on the same day, but returned on the 27th, the tumour being larger and more painful. On the 30th he had rigors, and the soft parts over the tumour were red and inflamed. The patient refused at first to be operated on, but on February 3 submitted. Mr. Broadbent operated by opening the sac freely with an incision ten inches long, the line of incision being carried above and below the tumour. The contents of the sac were turned out *en masse*, and the vessel was tied at the upper part, about an inch above the opening. Below a ligature was applied, which took in some of the soft parts with the vessel. After the operation the symptoms for a few days were unfavourable, but the man slowly recovered. The upper ligature came away on February 14, the lower ligature came away on the 20th, and on March 21 he was dismissed cured, being able to walk home with the assistance of a stick.

The report of Mr. Broadbent's case reminds one of the quaint clinical histories of Richard Wiseman, and recalls a

Surgical practice much too readily discarded after the labours of Hunter suggested a new line of thought and action.

A case of tetanus produced by laceration of the foot deserves notice from the circumstance that recovery from the tetanic condition took place on the removal of a small splinter of a metatarsal bone which was protruding through the granulating surface of the wound. The patient, a man aged 33 years, was admitted into the Hospital under the care of Mr. Broadbent on June 13, 1863. The wound, which first sloughed, afterwards progressed favourably. On the 29th tetanic symptoms made their appearance in the muscles of the neck, and trismus was established. On July 2 the presence of the portion of bone in the wound was made out, and the offending body was removed. On the 5th the patient could open his jaw, and from that time he recovered.

Another case, under the care of Mr. Sympson, presents a feature of interest in that a portion of the clothes of a man became by an accident buried in the rectus abdomonis muscle. The man was jumping over what is called a "cat-gallows," when his foot caught the top piece and carried it before him, so that he fell upon it at its sharp end. On entering the Hospital, to which he walked himself, he was found to present two wounds, one in the scrotum, the other in the left side. He also suffered much from pain in the right side. On examination, it was found that the right rectus muscle was ruptured obliquely across to an extent of three inches, commencing a little above the pubes, and dividing the muscle so completely from the median line upwards and outwards that the finger could be laid in the gap. The man was put to bed on the day of the accident—April 1, 1863. On the 9th there was much pain and tenderness and swelling in the wall of the abdomen, and there was some discharge from the wound on the left side. On the 10th an opening in the abdominal wall on the right side appeared, and both openings were discharging freely. There was now established a sinus, which, on the 12th, was laid freely open, when some substances, supposed at first to be sloughs, were removed. After they had been washed, however, they were found to be a piece of cloth an inch square, corresponding to the trousers which the man had worn at the time of the accident, and some bits of bark from a stick. After the removal of these foreign bodies, the man recovered, and left the Hospital sound.

THE MUSEUM.

The Museum of the Lincoln County Hospital is at present small, but promises well. There is certainly a good nucleus for a very valuable collection. At present there are about one hundred specimens, all of them of more than ordinary interest. There is one perfect specimen of a mammary glandular tumour removed by Mr. Hadwen, fourteen years ago, from a *man* 25 years old. Mr. Paget, in his "Pathology of Tumours," vol. 2, p. 258, has referred to this case as one of peculiar value and rarity.

A specimen of gall-stones is retained. About the stones themselves there is nothing peculiar, but they are remarkable as having passed out of the gall-bladder by a sinus in the abdominal wall. The patient was a young woman.

There is a specimen of a heart from a case in which Mr. Sympson tapped the pericardium to relieve an extensive pericardial effusion. The operation gave much relief, but only for a time.

The fragments of an oxalate of lime calculus weighing eighteen grains, and removed by Mr. Sympson after one application of the lithotrite, have this history attached to them: that when they were entire in the bladder of the boy they formed a stone which acted as a ball valve to the urethra, so that the boy had to stand on his head to void his urine.

There is also a fine specimen of a larynx and trachea, in which the mucous membrane is in some places destroyed by ulceration so as to expose the rings of the trachea. Some of the rings themselves, even, are ulcerated through. This condition extended all through the bronchi. The disease was supposed to be syphilitic. The patient had been a fortnight in the Hospital, during which time his breathing had gradually become more difficult, and at last dyspnœa was so great (even to threaten speedy death) that laryngotomy was performed by Mr. Lowe, and great relief experienced. The man died exhausted six weeks after.

There is no library connected with the Hospital.

In concluding this notice I have to express my best thanks to Dr. Harrison, the House-Surgeon, for the many facts with which he has most kindly supplied me.

THE LINCOLN LUNATIC HOSPITAL.

The city of Lincoln Lunatic Asylum or Hospital is situated, as I have once before said, on the upper part of the city, overlooking a wide extent of country. It is a plain building from the exterior, but light and cheerful within. The construction is of the old architectural type: a plain front, wings, and galleries. As it was in this building that the system of non-restraint for the insane was carried out, it is well for me to be rather minute in the description of the place and of the event it covers.

The Asylum was opened for the reception of lunatics in the year 1820. Prior to the erection the lunatics of the city had been placed in asylums in the neighbourhood of London, or in their own homes; not unfrequently in outhouses and sheds. The idea of building an asylum originated with a Mr. P. Parnell, who left a sum of one hundred pounds, conditionally, towards the expenses, many years before anything was done. At first the Asylum was not able to receive more than forty or fifty inmates, and these were intended to be persons who had seen better days: it soon, however, changed in its practical working, and was occupied by paupers mainly. In the course of a few years it underwent enlargement, and in 1835 it was capable of containing from sixty to seventy inmates. The first honorary Medical officers were Dr. Ambrose Cookson, Dr. Charlesworth, Dr. Hett, and Mr. James Snow. The first Resident Medical officer or Superintendent was Mr. Thomas Fisher, who resigned his office on October 14, 1830. He was succeeded by Mr. Henry Marston, who resigned on April 9, 1834. Mr. Marston's successor was Mr. Samuel Hadwen, who held office until July 8, 1835. The next election of a Superintendent brought forward Mr. R. Gardiner Hill, then a young man of twenty-four years of age, to whose exertions, courage, and observation the world is indebted for the introduction of non-restraint in the treatment of the insane. Mr. Hill, up to the time of his election, was Medical officer or House-Surgeon of the General Dispensary of Lincoln. He was persuaded to compete for the office at the Asylum by Dr. Charlesworth. Upon entering on his duties the condition of the Asylum was as follows:—

The moral and social management of the inmates was under the direct and sole control of the Resident Medical Officer; the honorary Physicians and Surgeon took part only in the treatment of the symptoms of physical disease. The patients were classified in three groups, the *orderly*, *disorderly*, and *convalescent*, and these were again divided into three ranks according to the sums paid for them. The patients who were considered orderly and convalescent were allowed to have the best rooms and the use of front grounds. They were also allowed to intermingle amongst themselves, and so long as they remained in the class in which they were grouped they were subject to no restraint. The majority of these were imbeciles, monomaniacs, and melancholics. The disorderly patients were placed in the back wards or galleries on the north side of the building, and they had only the use of a court-yard. They were subjected to the most strict system of restraint, but the methods of restraint adopted varied somewhat from those common at that time to asylums in general. Most of the modifications in the way of restraint had been introduced on the suggestion of Dr. Charlesworth, and were simply these. The strait-waistcoat had been laid aside, and in place of it iron handcuffs were used, attached to leathern belts going round the body. The reason for this change was not based on the idea that the restraint of the handcuffs was less than that of the waistcoat, but on the circumstance that a patient had been found dead, apparently strangled by one of the waistcoats. The handcuffs, consequently, were thought to be safer and equally effectual. A second modification consisted in the use of what were called the "boot hobbles" of Dr. Charlesworth. To explain what this invention was, it is necessary to state that previously to the invention the legs of the patients at night were confined to the foot-board of their tub bedsteads by means of iron leg-locks. The "boot hobbles" of Dr. Charlesworth were boots made of bed-tick and leather, and were locked by the soles to the foot of the bedstead. The reason for the adoption of these boots was to avoid the great chafing and the irritation of skin produced by the iron fillet or lock; it was not intended that the patients should not be restrained, but that they should be well restrained, without suffering injury. The idea, as far as it went, was humane, but very unsuccessful in its working. The boots did not hold the patients so securely as the "leg lock," and the chafing was so great that abrasion of skin and even abscess followed their employment. Handcuffs and chains were also

used at night for confining the upper limbs, and every patient who exhibited violence, or who was insensible to the ordinary calls of nature, was bedded on straw.

From all I can learn from reports of English asylums prior to 1835, these systems of restraint were universal. The picture we see at Lincoln had nevertheless this one redeeming quality, that it aimed to be more merciful in its details. The evidence is satisfactory to the effect that the Physician to the Asylum who invented the "boot hobbles," Dr. Charlesworth, was awake to the fact that from the rudeness of restraint injury was often inflicted on life and limb, and it is due to him to say that he tried to alleviate the suffering arising from what he, and all others with him, considered a necessary evil. But Dr. Charlesworth went no further than this: he had no word against restraint *per se*, but disputed the methods by which it was carried out. His improvements were analogous to those which might follow if some tender-hearted philanthropist, who thought capital punishment necessary, should get an act passed for culprits to be destroyed by inhaling chloroform instead of by the more brutal method of hanging them up by the neck: such a man would be a modifier of a system, but he would have nothing to do with the abolition of the system or the stamping of it out.

We come then to the year 1835, and to Mr. Hill's election. A significant fact followed him into office. After he was comfortably installed there arrived at the Asylum "an order" of handcuffs from Birmingham: four dozen "wrist-locks" for the use of the institution. During his first year Mr. Hill, naturally, to a large extent accepted things as they were, but not without distrust and disgust. A patient whose wrists had been rendered sore by the handcuffs had a penchant for eating his poultices; and this excited Mr. Hill's feeling against restraint altogether. He began therefore gradually to feel his way towards removing it, once and for all, and he soon commenced to discover that success was certain in its course.

It is commonly assumed—I know not on what data—that the non-restraint method came into existence in the Asylum at one step—as though some one had said openly and tersely, Every fetter shall be at once removed. There is no ground whatever for such an assumption. The facts are clear on the reports of the Asylum that Mr. Hill went to work leisurely, and, as we may say, case by case, in removing the manacles from the patients under his care. But true it is also that as he progressed he was astounded to see how readily the restraint system succumbed when its gradual removal was put to the test. In a very few months restraint became the exception instead of the rule, and in March, 1837, the very last case in which restraint was resorted to was entered upon the books of the City of Lincoln Asylum. It is most interesting to note from the reports the course of the facts. The following short table will give at a glance the correct data:—

	Per cent.
In 1829 there were under restraint in the Asylum	54·16
1830 " " "	58·69
1831 " " "	57·14
1832 " " "	67·90
1833 " " "	50·57
1834 " " "	41·28
1835 from Jan. to July " " "	35·18
1835 from July to Decem. " " "	20·37
1836 " " "	10·48
1837 " " "	1·53
1838 " " "	·0

The success of the system of non-restraint, so clear, so sharp, so decisive, was not accomplished without considerable and obstinate opposition. The attendants in the Asylum were the first who raised their voices against the innovation. To them the theory was surrounded with imaginary personal dangers; in addition, they were compelled to perform more work. When under the old system in which they had been bred up they had pinioned their unfortunate patients, they themselves were free and, as they held it, "jolly." Then the card table and beer jug and good fare invited them to ease, and non-restraint was the order of their day, or rather their night. Mr. Hill's new-fangled notions put this merry time of it out of joint. Non-restraint to the insane carried with it as the essential of success restraint of the attendant, more watching, more care, more kindness. It was a hard task to overcome the difficulties imposed, but at last they were met, and attendants such as we now see everywhere were part and parcel of the Asylum at Lincoln.

Another source of difficulty lay with the Board of Directors of the Asylum. These gentlemen were divided in opinion; some were opposed to Hill tooth and nail—thought his idea chimerical, and stamped his practice as eminently dangerous. It was even suggested that he himself was insane, that he had gone mad on his "hobby," and with it was galloping headlong to destruction. Nor was this all; it was alleged that in his course he had no respect for others, but was ready at any moment to expose the lives of the nurses and attendants not less than his own to the wild fury of the maniac, and all in order that his wonderful conceptions should be fully realised.

Lastly, there was opposition outside of the Asylum; with few exceptions, the superintendents of other Asylums received the method with more than distrust, and, indeed, it required the generation of superintendents then extant to go out altogether, and make room for younger and less prejudiced men, before the whole truth was sufficiently approved. Precisely as in the case of the discovery of the circulation of the blood, few over forty fully believed. Not until Dr. Pritchard followed out the plan at Northampton, and Dr. Conolly afterwards placed it on the most extended basis of proof at Hanwell, was its soundness, not less than its humanity, placed beyond dispute. In the actual working out of his design Mr. Hill was fortunate and unfortunate in the circumstance that he was supported by the steady friendship and sympathy of Dr. Charlesworth. He was fortunate in that by having in Dr. Charlesworth one on whom he could rely whenever he made a new and untried experiment. He was unfortunate in that from the very fact of having such powerful aid an excuse was afterwards found for trying to deprive him of credit which success had rendered unusually valuable, and for endeavouring to divide his dearly-bought honours with his senior officer and former friend. On this attempt there arose some years ago a paper war signalised by two peculiar traits—a rancour against Mr. Hill which it is hard to see surpassed, and a quiet, staid, unassuming defence, on his part, which it would be difficult to imitate. Looking over all the documentary evidence that is procurable, with the determination to be the simple and faithful historian, I must say that a more pitiable spectacle than the endeavour to rob Mr. Hill of the value and respect due to his labours was never before witnessed in such a controversy. The evidence is conclusive that for years Dr. Charlesworth himself gave to Mr. Hill the full credit of the introduction of the non-restraint system, and what is more, he lived and died without leaving a line claiming the introduction. For this and for his support rendered to Mr. Hill we may thank him heartily, and, indeed, he might have placed himself by the merest touch of generosity in one of the most enviable positions in the history of Physic. Had he, when his injudicious friends claimed for him that which he never did—had he then and there possessed the courage to repeat the words he used at the meeting of the Provincial Medical Association at Hull—had he said what was just true, that he was the first and earnest abettor of a system which he did not invent, it would have been the happiness of the commentator to have placed him in the first rank of those men who have been made great by their own resignation of imputed fame and their sacrifice of self to the dictates of conscience. Unfortunately Dr. Charlesworth had not the courage to speak out: he could not actually claim what he knew belonged to his friend and pupil, but he died letting his friends claim for him that which he would not claim for himself.

I have entered rather largely into this question of the origin of the system of non-restraint in lunacy, because it is a question that in the future will be of profound interest to the historian, and because said historian will of necessity turn to what is written in this day for his evidences and convictions. I am bound, therefore, to give what seems to be the simple and actual truth; and the truth is, that the whole credit of introducing the system of non-restraint is due to Mr. Hill. There had been perhaps before him some vague or feeble humanitarian ideas on the subject; there had been an impression, which, in fact, could not fail to arise, that restraint was cruel; but it was Mr. Hill who dared to show that it was as *unnecessary* as it was cruel.

In that act of daring he won the prize, as Columbus, by the same act, won a new world. Had Mr. Hill failed in his

efforts; had some maniac, who previously was held in mechanical restraint, committed a murder in the early days of his system, the failure—the crime almost—would, clearly enough, have been saddled on Mr. Hill; while those who were opposing him would not have failed to have beaten him with his own weapon. Had he failed in those first efforts, there is not the slightest reason to suppose that even now restraint would have been abolished. These negatives are so clear that those who run may read them; and why the affirmative should ever have been doubted I cannot, for my part, decipher, except by assuming that it is the most difficult of all concessions to recognise the successful labourer in his own day and generation. Away with the thought! Let us give Gardiner Hill his just due, if no more, and be proud to feel that we have lived with him, and have bound up such works as we have done in the same volume of the time.

ARMY MEDICAL SCHOOL, ROYAL VICTORIA HOSPITAL, NETLEY.

EXAMINATION AT THE CLOSE OF THE EIGHTH SESSION, BETWEEN JULY 26 AND AUGUST 3.

A.—WRITTEN EXAMINATION.

I. Military Surgery.

Professor T. LONGMORE, Deputy Inspector-General.

1. Mention the several purposes for which the convex and concave spectacles are supplied in the regimental optical and ophthalmoscopic case of instruments, and describe the method of using them, in conjunction with the test-types for distinguishing emmetropia, myopia, hypermetropia, whether simple or complicated with presbyopia or amblyopia. Explain the theory on which the diagnosis in each instance is established.

2. Describe the nature, effects, and proper treatment of osteo myelitis after gun-shot injuries of long bones or of amputations consequent upon them.

3. Describe accurately, step by step, the operations of excising the shoulder and elbow-joints, each by a single linear incision as practised in the post-mortem-room.

II. Military Medicine.

Professor W. C. MACLEAN, M.D., Deputy Inspector-General.

1. From what date may cholera be said to have engrafted itself on the epidemics of the soil of India? What are the conditions which appear to act most powerfully as predisposing causes of the disease? What influence do high or low situations respectively exert

(*a*) On the proportionate mortality of those attacked?

(*b*) On the proportionate number of those seized?

Explain in what way excessively long marches appear to increase the virulence of an epidemic of this disease in soldiers, native or European, in India. Give an accurate description of the premonitory and actual symptoms

(*a*) In the slight,

(*b*) In the severe forms of the disease,

and describe the effects of its presence on the blood and secretions. What are the chief points to keep in view in our endeavour to exclude this disease from garrisons, camps, and cantonments, and to mitigate the severity of an epidemic when it appears. Give a description of the most rational treatment

(*a*) In the premonitory,

(*b*) In the confirmed,

(*c*) In the state of febrile reaction,

particularly stating in what stage and to what extent opium may be used and is safe.

2. What is the average weight of the liver, in health, in a man between the ages of 18 and 40? Describe accurately its normal position and limits; explain the most common causes of abnormal position of the gland; give the precautions necessary to accuracy in the use of percussion and palpation in investigating hepatic diseases.

3. Give as complete an account as you can of the therapeutic uses and value of ipecuanha in tropical medicine.

III. Military Hygiene.

Professor E. A. PARKES, M.D., F.R.S.

1. What are the chief causes and effects of impurity of air in the habitations of men?

2. How would you determine the amount of carbonic acid, watery vapour, and suspended matters in the air?

3. Enumerate the principal adulterations of wheat flour, and state how you would determine

(*a*) The quality of flour.

(*b*) The presence of pea flour, oats, and maize.

4. What has been the Medical history of the West Indies as far as Europeans are concerned? State explicitly what you would do in a West Indian station if there occurred

(*a*) A considerable yearly number of diarrhœal and dysenteric cases.

(*b*) A considerable number of admissions from typhoid fever.

(*c*) A number of admissions from paroxysmal fever.

(*d*) Occasional outbreaks of yellow fever.

IV. Pathology.

Professor W. AITKEN, M.D.

1. Give a classified account of the lesions in the kidney which were demonstrated during the past session in the practical room.

2. Describe the nature and probable origin of the parasitic cyst in the liver which proved fatal in the case of private ————, as shown at the post-mortem examination of June 28, 1864.

3. Mention the period of incubation, and describe the course and progress of an infecting venereal sore, and contrast your account with similar details relative to venereal sores which do not infect the system.

B.—PRACTICAL EXAMINATION.

I. & II. Military Surgery and Military Medicine.

Make an examination of the case of ————. Write concisely a history of the case, your diagnosis, prognosis, the probable effects of treatment, and the influence of the disease or injury on the man's fitness for service as a soldier. (Twenty minutes allowed for the examination; half an hour for the description.)

III. Hygiene.

Examination of two specimens of water.

Examination of adulterated milk and adulterated beer.

Microscopic examination of adulterated wheat flour.

IV. Pathology.

Description of various preparations and microscopic specimens, and examination of secretions.

REVIEWS.

Indications of the Paths taken by the Nerve-Currents as they traverse the Caudate Nerve-Cells of the Spinal Cord and Encephalon. By Lionel Beale, M.B., F.R.S. [From the *Proceedings of the Royal Society* for 1864.]

This is a sequel to a paper on the caudate nerve-cells which we have already noticed. Dr. Beale has observed that each fibre passing from the cell exhibits in its substance several lines of granules. "At the point where each large fibre spreads out to form the body of the cell, all these lines diverge from one another, and pursue different courses through the very substance of the cell, in front of, and behind, in fact, around the nucleus. Lines can be traced from each fibre across the cell into every other fibre which passes away from it." . . "They are, I think, lines which result from the frequent passage of nerve-currents in their definite directions." "I have," he says, "already advanced arguments in favour of the existence of complete nervous circuits. . . . I venture to consider these lines across the substance of the caudate nerve-cells as another remarkable fact in favour of the existence of such circuits. . . Instead of the cell being the point from which nerve-currents *radiate* in different directions along single fibres, it is the common point where a number of circuits having the most different distribution intersect, cross, or decussate. The so-called *cell is part of a circuit*, or rather *of a great number of different circuits.*"

An Inquiry into the Relative Frequency, the Duration and Cause of Diseases of the Skin, as Deduced from the Observation of One Thousand Consecutive Cases. With Remarks on the Exanthematous Epidemic of the Spring of 1864. By Erasmus Wilson, F.R.S. Churchill and Sons. 1864. Pp. 80.

The cases referred to are cases which were observed in private practice alone. They relate to a different class of persons than to those who contribute to the statistics of our several chari-

table institutions. A comparison of Mr. E. Wilson's numbers with those, say, of the Skin Hospital would afford valuable information therefore. The following is Mr. Wilson's summary of the skin diseases he has met with, viewed as individual diseases:—"First and most conspicuous in frequency above all others is eczema, represented by the figures 298, very nearly 30 in every 100, or 30 per cent. Then follow gutta rosacea, above 11 per cent.; alphos, above 7 per cent.; acne, $5\frac{1}{2}$ per cent.; alopecia, 5 per cent.; pityriasis, above 4 per cent.; trichosis and scabies, nearly 4 per cent.; lichen, arca, and syphiloderma, each 3 per cent.; erythema, above $1\frac{1}{2}$ per cent.; chloasma, $1\frac{1}{3}$ per cent.; [sycosis and furunculus, nearly $1\frac{1}{2}$ per cent.; prurigo, lupus non exedens, scrofuloderma, and herpes, above 1 per cent.; melasma, lupus erythematosus, impetigo, ichthyosis, and nævus vasculosus, under 1 per cent.; lupus exedens, carcinoma cutis, kelis and hirsuties, $\frac{1}{2}$ per cent.; urticaria, kérion, leuosma, ecthyma, and nævus hypertrophicus, under $\frac{1}{3}$ per cent.; purpura, sudatoria, cachexia cutis, tumores encystici, molluscum, morbi unguium, and canities, nearly $\frac{1}{4}$ per cent.; and the remaining twelve diseases, $\frac{1}{10}$ per cent., or one in the thousand."—P. 4. The pamphlet is a valuable contribution to cutaneous pathology.

The Melbourne University Calendar for the Academic Year 1864-65.

It may interest some to hear that, with a spirit of liberality worthy of imitation by our Universities at home, a Medical student, migrating at any period of his curriculum to Melbourne, will there receive credit for any lectures that he may have attended at any recognised school at home, and also for any examination which he may have passed. This is a great advantage, as he loses nothing by the change of his place of study, so far as the period of completion of his curriculum is concerned. The University further grants *ad eundem* degrees.

By the way, we wonder who is responsible for the mode in which this "Calendar" is put forth? Throughout the whole volume, of about 400 pages, there is not to be found a stop of any kind, except the full stops at the end of each sentence or in the passages quoted from the authors used on the examinations. This neglect gives a very strange look to the pages, and does not conduce to perspicuity.

PROVINCIAL CORRESPONDENCE.

IRELAND.

Dublin, November 9.

The Medical Session at the "Catholic University" was inaugurated by Professor Lyons, M.B., Trin. Coll. Dublin, in an able address, in the course of which the learned lecturer touched upon a great variety of important and interesting topics. Having spoken of the great success of the Catholic University School of Medicine, which had now, since its foundation, sent forward a total of 800 students to the various departments of the public service, he dwelt at some length upon the geographical character of diseases, illustrating his observations with the aid of a large map. He pointed out the fallacy of the opinion that length of residence fortified the system against the diseases of a locality, showing so far had the contrary been found to be the fact, that in the public service it is now a recognised principle to send men to dangerous stations only for three years. In speaking of the diseases of Ireland he showed that while her people had been remarkable for physical and moral development, there was no country whose diseases had presented a more fatal character. The proportion to the population of blind, deaf mutes, insane, and idiotic, too, was greater than it is in Belgium, Holland, France, or the United States. In conclusion, he called attention, with a view to their removal, to two deficiencies existing in the School of Medicine of the University, namely, the want of clinical wards for fever and for midwifery.

The annual distribution of prizes, etc., in Doctor Steevens' Hospital and Medical College took place on Thursday, the 3rd inst. The honours were presented to the following successful candidates by His Grace the Archbishop of Dublin, Dr. Hamilton having first read the report, in which the loss experienced by the College in the recent premature death of Dr. Young, Demonstrator of Anatomy, from malignant scarlatina, caught in the discharge of his duty, was deplored.

Cusack Medals and Exhibitions.—Senior, Lewis Eades, Dublin; middle, Robert A. Caldwell, Newtownlimavady; junior, Dominick Olden, Dungarvan.

Certificate of General Attention and Proficiency at Terminal Examination.—William Arrowsmith, John Atkinson, John Campbell, Robert Fletcher, William Forbes, William Glover, Richard Pendleton, Thomas Pinchin, Geoffrey Purcell, Rawdon Robinson, Christopher Sharpe, Edward Thomas, Evan Williams.

His Grace then delivered an address so excellent, and containing such admirable advice both to the student and to the Practitioner of Medicine, that I am induced to send it to you *in extenso*. In reading it the thought suggests itself that it is seldom that a see has been held in succession by three such distinguished men as Archbishops Magee, Whately, and Trench. The Archbishop spoke as follows:—

"I would like to say a few words before the ceremony of to-day is brought to a close. I had great satisfaction in obeying the invitation which reached me, namely, that I should distribute those prizes which you have just received (some of you) to-day. We, indeed all of us, have the deepest interest in the skill, and knowledge, and proficiency of those who undertake the duties for which you are preparing yourselves. We commit to you our own lives not only, but we commit to you oftentimes the lives of others far dearer to us than ourselves. The fact that you have just received those prizes, having undergone a successful examination in this Hospital of ancient fame, although but recently a school of Medicine; that you have undergone the test of examination by such examiners as here are found, is an augury that the skill and knowledge, and proficiency which your work demands are not wanting upon your part. I take you, the successful candidates of to-day, more as the representatives of a far larger number, who, I doubt not, you would be yourselves the foremost to own, pressed you closely in this competition, and would themselves be also worthy of prizes, if in the very nature of things they were not of necessity confined to a few. I would only say to you, my friends, I would only beseech you not to be satisfied, as I doubt not you will not, with these successes. I would beseech you not to rest upon any premature satisfaction, either now or hereafter, in those attainments which you have made your own. I would beseech you not to rest upon any premature satisfaction, either now or hereafter, in those attainments which you have made your own. I would beseech you to dwell not on what you know, but upon that memorable world of things, and of things which pertain to your own art and skill, of which of necessity you must as yet be ignorant. I beseech you, my friends, never to count any knowledge which bears remotely or nearly on your work superfluous. It may seem to have little immediate bearing upon it, but indolence, and sloth, and self-satisfaction may tempt you to rest where you are, and to say, 'What good will this knowledge ever do me? It does not bear upon my immediate work.' Yet of one thing you may be sure, that the experience of all life shows that this knowledge, sooner or later, will serve us, and will return in some unexpected way to be found most profitable to us. And if by chance the conscientious education of yourselves which I urge upon you, not while you are students only, but that for the whole of your after life you should be always learning—I say if this conscientious education of yourselves does not seem immediately bearing these results which you expected; if, perchance, you should see others who started with you in the race, and who you know are not superior to yourselves in knowledge, or perhaps in industry; if you should see them for a while overpassing you and leaving you behind; if these rewards which you think you may justly expect are not immediately yours, still I would say, 'Continue; educate yourselves conscientiously; do your work.' There is an old Persian proverb which almost every one of us can lay profitably to heart, especially in moments of disappointment—'The stone which is fit for the wall is not left in the way.' That is, being fit for the building it is not left unhonoured in the road. Now, what I ask you to do is to fit, and polish, and prepare yourselves as stones for the wall; and we know sooner or later the time will come when you will find an honoured place in it. There is not so much knowledge, so much conscientiousness, so much ability in the world, that when it exists it can for any length of time be overlooked. While I speak this, while I have spoken to you of the work that you have undertaken in an honourable profession as the means of earning for yourselves that independence which we all ought to seek to acquire by our own efforts, knowing that the bread which is the fruit of the labour of

a man's hands is the sweetest of all; I say, while I speak of it as a Profession, I beseech you never to regard it, never to look upon it merely as such; but I beseech you to look upon it as the appointed sphere in which you are to serve God and serve your generation. You, educated in this city of Dublin, and having passed through the schools of this Hospital—an Hospital rich, a city rich in the memories and in the traditions of so many names, eminent for scientific worth, and eminent also for the beauty of their character—in a city rich in so many too early lost, and whom we deplore—some who died on their field of battle, as did one we read of to-day, as truly as the soldier who dies on the field of battle—I say that you would be without excuse if you did not learn to regard in this higher aspect the work which you have undertaken—if you did not regard it as the appointed sphere in which you are to serve God, and by His will to serve your generation. We ask, we demand, this of you; we asked it not in vain of so many who have gone before you; we ask from you not only that Professional skill which it would be a shame and dishonour not to bring; but we ask more of you—we ask of you that tender compassion for all the sufferings of the hearts of your fellow-men, which no familiarity with them should blunt or destroy; we ask this tender compassion to be as truly bestowed upon Lazarus as upon Dives, as truly in the poorest hovel as in the proudest palace—we ask of you this. We ask of you, further, that delicate sense of honour which would enable us to entrust to you the saddest secrets, if such they were, of our households, with a confidence that the seal of confession could not make them safer than they are. We ask this—we ask much more of you which cannot be learned in schools of human art, in schools of human science, which can be learned only in a higher school under Divine teaching. And if upon this matter I speak no more, you will easily understand the restraints which limit me; but only this I will say in parting, that if you superadd the graces of the Christian character to the knowledge, and the acquirements, and the skill of your own Profession, in so far will you be thoroughly ready for your work, only so will you accomplish, as I trust you mean to accomplish, the duties so honourable to yourselves, so full of blessing to others, of that life task which you have chosen for your own. I leave you with these few words, my friends."

The Hon. Judge Berwick having been called to the second chair,

Dr. Fleming moved and Mr. Tabuteau seconded a vote of thanks to his Grace, which passed with acclamation.

His Grace having returned thanks, the proceedings terminated.

(To be continued.)

GENERAL CORRESPONDENCE.

MEDICAL EDUCATION AT OXFORD AND CAMBRIDGE.

[To the Editor of the Medical Times and Gazette.]

SIR,—The remarks lately made in your editorial articles on the extension of University education appear to me particularly appropriate at the present time, when attempts are being made by the authorities at Oxford and Cambridge to render those seats of learning available for Medical study, and to attract students by pointing out the advantages offered to those who desire a University Medical education. Every one must rejoice to find that at Oxford some of the Colleges at least are endeavouring to shape their pecuniary charges in such a form as to make the University accessible to persons of somewhat limited means, and it is no less a matter of surprise than of regret that the University in general does not follow so good an example. Even according to the "frugal system," however, which has been inaugurated at St. Mary's and St. Alban's Hall, it would appear that the cost of obtaining the degree of B.A. is somewhere about £300; and this degree, it must be recollected, is only the first step to be taken by Medical students, who have four or more years of study to pass afterwards before they attain to their Medical degree of Doctor. The utter unfairness of this arrangement as regards Medicine in comparison with divinity is at once apparent when we reflect that in the latter case very little special study is necessary to enable the candidate to present himself for orders after he has taken his degree in arts; and although I do not allege that no training in theology is required of divinity students, still it is practically very slight, and a candidate, supposing him to have attained the proper age, may be ordained almost immediately after he has completed his three years' course at the University. The Medical student, on the other hand, begins his special studies only after he has attained his B.A. degree, and incurs fresh expense in attending lectures and Hospital practice, besides maintaining himself until his Medical course is completed.

Now, there are two lights in which our two ancient English Universities may be regarded. In one aspect they are institutions each consisting of a number of well-endowed Colleges, amply provided, as far as money is concerned, with the means of teaching and encouraging science and letters, and in many cases expressly founded for the assistance of a class of students who are unable to pay for an expensive education. In the other view, they are places where youths of good birth or of ample means assemble for the purpose of mutual association and good fellowship, the element of learning playing only a subordinate part in the arrangement. No fault can be found with the latter view, and if a number of young men have the opportunities of enjoying themselves at a University, instead of idling at home or joining the army, they have a perfect right to do so, as long as they behave themselves like gentlemen, and confine their amusements and gratifications within lawful bounds. But with this class my present remarks have no connexion, as my object is rather to direct attention to the neglect of the Universities to provide for the large number of students who, although not possessed of great pecuniary resources, desire to enjoy the advantages of a College life. However much the facts may be obscured by the present expensize rate of living at the Universities, there can be no doubt that to assist the less wealthy class of students was the main object of the benevolent founders of these institutions.

It is repeatedly alleged that although the expenses of a University life are heavy, yet that they are considerably alleviated by the scholarships and other pecuniary advantages which the Colleges have the power of bestowing. This argument is true to a considerable extent, but putting out of question those students who have no chance of obtaining any of these rewards, the prizes themselves are but few in comparison with the number of the undergraduates, and with the enormous wealth of some of the Colleges; and they are very small in proportion to the style of living which is the rule at the Universities. There is very great diversity, however, in this respect in the Colleges, and no general argument can be made to apply to them all; but it may be broadly alleged that on the whole the Colleges are niggardly in the extreme in devoting their revenues to the assistance of deserving, although poor, scholars, and that money is spent in extravagance or hoarded up in the College chests which ought to be devoted to the active encouragement of learning. An instance of the profuse outlay of funds sometimes displayed may be cited in the recent visit made by the Prince and Princess of Wales to the University of Cambridge, when the most sumptuous banquets were held in honour of the occasion out of the coffers of the Colleges; and on the other hand, we find that Downing College, Cambridge, founded for the avowed and express purpose of promoting the pursuits of Law and Medicine, devotes comparatively very little of its great wealth to the objects contemplated. This College, rich as it is, confers only eight fellowships, and of these only three were filled up a few months since, and there are only a few paltry scholarships (paltry in comparison with the College revenues) of £40 per annum.

I admit that at Cambridge the Medical student, so far as expense goes, is in a more advantageous position than at Oxford, for the *genius loci* of the latter city is more extravagantly inclined than that of the former, the difference being expressed in the undergraduate slang by the saying that port wine and cigars are the luxuries of Oxford, while spirit-and-water and pipes are the more moderate indulgences of Cambridge. There is another circumstance in favour of the Medical student at the latter—namely, that he need not proceed to the degree of A.B. before commencing his Medical studies, but that the passing of the Previous Examination, or Little-go, as it is technically called, will dispense with the necessity of a degree in arts.

But now let me explain the course to be pursued, and the expenses likely to be incurred by an intending Medical student or his friends at the University of Cambridge, where the literary and scientific advantages are as great, and the expenses considerably less, than those of Oxford. Suppose, in the first instance, that the youth's education has been neglected, that he has no exhibition, and that he enters the University at the

usual age—say 19. Very few questions are asked, and none at all at many of the Colleges, as to his proficiency in classics or mathematics, but minute inquiries are made of the position and status of the youth's parent or guardian, who signs an agreement that he will be responsible for expenses, and who, moreover, deposits a certain amount, under the name of *caution-money*, to insure the College against loss. This money is returned at some period or other, but is sunk for the time. The youth then commences his College career, his expenses amounting to the rate of about £300 a-year, or £200 for the College terms, and on the first or Little-go Examination, having, as I have suggested, neglected his early studies, he is pretty sure to be plucked; but he begins again, and perhaps squeezes through at the next or a subsequent examination, and then, after costing the "governor" some £400 or £500, he may begin his Medical studies.

But let me suppose a second instance, where the youth has been really well or fairly educated, either at home or at some public school, or that he even comes up to the University with an exhibition; surely it might be supposed that he would commence with considerable advantages; and so he does in some respects, for the expenses of his residence are, *pro tanto*, diminished by his exhibition, and if he is only moderately, very moderately, industrious, he will not probably be plucked at his Little-go Examination. The fact is, that he is put back in his studies when he enters the University, for whereas he has probably been previously reading Demosthenes or Æschylus, he finds himself associated in a class where the students are poring over Xenophon's "Anabasis" or Cæsar's "Commentaries," and where many of them are unacquainted even with the rudiments of Greek or the elegancies of Latin. To this preliminary drudgery he is condemned for five terms, occupying a year and a-half, the College tutors seldom thinking it worth their while to attend to his advancement, as they are more engaged in drilling the "awkward squad" in Greek grammar, or Latin composition, or in the elements of mathematics. However, at the end of the period alluded to, the Little-go Examination is passed, and then the Medical aspirant may begin his special studies.

Now, I am far from desiring to undervalue the importance, or denying the necessity, of the student's passing a Preliminary Examination before the commencement of his Medical curriculem; all I maintain is that the B.A. Examination at Oxford and the Previous Examination at Cambridge are not worth the time and the money which are required for passing those ordeals. I entirely agree with you in your remarks relating to Oxford, that the majority of those who graduate there are persons of only mediocre attainments, and that the prestige of the B.A. is more owing to the reputation of the University than to their own deserts. This remark applies with similar force to the equivalent degree at Cambridge, and with a necessary modification, to the Previous Examination at the latter place. The truth of this observation will be seen by enumerating the subjects for the next Previous Examination at Cambridge—namely, the Phœnissæ of Euripides, the third book of Cæsar De Bello Civili, St. Matthew's Gospel in Greek, Arithmetic, the first three books of Euclid, and Paley's Evidences. Euripides is the easiest of the Greek tragedians, Cæsar's books, besides being written in bad Latin, are mere schoolboy work, and the mathematics are only those which are taught in all good schools. Now, I do not by any means say that the subjects are not very good for an Entrance or Matriculation Examination; but I assert that for a well-educated youth to devote himself for a year and a-half to such studies in a University is little more than a waste of time. Compare with the above subjects those which are required of the students at the Matriculation or Entrance Examination of the University of London, and observe the difference. In London the subjects are, a book of Latin, a book of Greek, the first four books of Euclid, Arithmetic and Algebra, Chemistry, Natural Philosophy (including the elements of Dynamics, Pneumatics, Optics, Acoustics, and Hydrostatics), French or German, English Grammar, Modern Geography, and English History. This ordeal is passed by hundreds of youths twice a year, after a preparation of from six to twelve months, and generally at about the age of 17 or 18—supposing, of course, that there has been a fair substratum of education beforehand; and the stringency of the ordeal in London is too well known that I should need to insist upon it.

But I shall be probably told that at Cambridge a boon is offered to the students by a recent arrangement, which allows them to come up for their Little-go Examination after a year's residence. This is true, but the indulgence refers only to those who propose to go out in honours, and is almost wholly inoperative as regards Medical students, unless they intend afterwards to devote themselves to the higher mathematics, and to proceed to the A.B. degree and the honours Triposes before commencing their Medical curriculum. Those who have the time, the talents, and the money to pursue this course will no doubt eventually find their reward, because I should be the last to dispute the value of a Cambridge degree in honours; but, as you have remarked, the successful candidates for honours are necessarily few, while the students of average ability are numerous, and the idlers, it must be admitted, are numerous also. Much credit is due to Cambridge as well as Oxford for introducing natural science as a road to honours; but very little will be done in this direction until the preliminary examinations are passed at an earlier period than is at present the case, and more time is thus left for the cultivation of other subjects besides classics and mathematics.

The reduction of Collegiate expenses at Oxford is a step in the right direction; but even under the system thus inaugurated, the sum of £100 for the academical year (considering that the academical year consists of only about six months) is enough in all conscience. At Cambridge, it is admitted that the expenditure for an undergraduate, living in the most economical and even parsimonious manner, and exclusive of clothing, pocket-money, travelling expenses, or any indulgence, amounts to about £150 for a year, or rather for about six months of the year. By no conceivable circumstance of economy or prudence can the undergraduate materially lessen this amount; for whether he eats his dinner and breakfast or not, he is charged for it, and if he thinks to economise by reserving the residue of a meal for the morrow, there are hands and mouths which relieve him of any care for the morrow by clearing away the leavings, and furnishing for each day a new supply. If he thinks that the payment of the College fees for tuition secures to him the services of the tutors, he is considerably mistaken; for the authorities all openly encourage the system of cramming or coaching, and those students who do not go to this expense almost always find themselves placed at a great disadvantage. The College tutors, in fact, generally perform their duties in a perfunctory manner, and purposely leave the work of instruction to be done by the private teachers or coaches. The undergraduate's lodgings, again, must be paid for, whether he occupies them or not; and this is a salutary and proper rule during term time; but he must pay for them also during the vacation, when he and his fellow-students may be living elsewhere. Every kind of service rendered to him, however minute, is charged at full, if not exorbitant rates; and as all the charges are sanctioned by the University authorities, there is no course left but to pay them. Until some reform is effected in these and other particulars, the Universities of Oxford and Cambridge can hardly become available to persons of rather limited income, such as the sons of members of our hard-worked and ill-paid Profession.

I am, &c. PATERFAMILIAS.

INTOXICATION—RUPTURE OF THE LIVER.

LETTER FROM DR. WILSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—I remember a case reminding me of that published in your number of October 29. I was, some twenty-five years ago, acting as House-Surgeon at Guy's Hospital. A man was brought in on a shutter by a policeman at about 3 a.m. I examined him carefully, previously stripping him, but could detect neither fracture nor contusion. The man had evidently been drinking. He was very violent, striking at those about him, and yelling so furiously that I was glad to get rid of him, were it only on account of the patients in the house. His pulse was good, but rather excited, though of good volume. Skin natural. No vomiting or hiccup. I requested the policeman to remove him to the station. The following morning the same policeman came to the Hospital and stated that the man was dead, found lifeless in his cell at the morning visit. There was, of course, the usual amount of blame attached to the Hospital officials in the papers. An inquest was called, previous to which a post-mortem examination was made by that excellent Surgeon and Anatomist, Mr. Hilton. The liver was found lacerated, nearly torn in two, and a large basinful of blood found in the cavity of the abdomen. Now, how did this happen? Not antecedent to his conveyance to the Hospital. A lesion of that extent would have been attended with

the ordinary symptoms from the moment of its existence; but there was not the smallest sign of prostration. Did it arise from the man falling from the shutter, or from any violence applied in forcing him into the cell? The policeman protested against both these suppositions. Could it possibly have happened between the time of his introduction into the cell and the subsequent visit? Hardly. An equivocal verdict was pronounced; but the public derived some gratification and consolation in saddling the unfortunate Medical official with ignorance and incapacity. I am, &c.,

9, Via del Giglio, Florence, Nov. 2. W. Wilson, M.D.

ICE IN POISONING BY AMMONIA AND CANTHARIDES.

Letter from Mr. K. H. Bold Williams.

[To the Editor of the Medical Times and Gazette.]

Sir,—Reading in your last number the "notes on the cases of poisoning" treated at the London Hospital, the first mentioned—viz., "poisoning by liq. ammonia fort."—brought to my recollection a similar case which I had under my care last winter. Should you think the particulars of sufficient importance for publication, I should feel obliged by your finding place for it in your valuable journal.

A messenger came for me one evening to go to a farmhouse, about two miles distant, to see the son, a young man about 26 years of age, who, it was said, had swallowed by mistake some liquid used for blistering horses. I was not at home at the time; and my assistant sent an emetic composed of ℈j. of sulphate of zinc. Immediately I came home I hurried to the patient's house. He had taken the emetic, and had vomited freely. I was informed it was then about one hour and a-half since he had swallowed the "stuff," as they called it; and the bottle containing the liniment was shown me: it smelled very strongly of ammonia, and, as I concluded, also contained a good proportion of powdered cantharides and olive oil. The quantity he had taken was two tablespoonfuls in mistake for a bismuth mixture which he was in the habit of taking. He was in great agony; his face flushed and swollen; his lips and tongue much swollen, the latter so much so that I could with difficulty see inside the mouth; he could not remain still for a moment, but kept walking backwards and forwards with his head down for the purpose of allowing the saliva to run out of his mouth, as he had a great dread of attempting to swallow. He complained of headache, but it was of his throat and stomach that he complained most; his breathing was accompanied with a gurgling sound in the throat as if almost threatening suffocation.

I first of all induced him to try to swallow some very dilute vinegar, the greater part of which returned through his nostrils. I then gave him some olive oil, milk, and some linseed tea, which they happened to have prepared: he managed to get a little of each down, but soon obstinately refused to try and swallow any more on account of the intense pain he suffered in the act of deglutition. I now gave him ℥ss. of tinct. opii, with the view of counteracting the effect of the cantharides. It happened to be a very frosty night, and the idea struck me that ice put into his mouth might at least lessen his pain. I readily procured some, and after a great amount of persuasion I got him to have some small pieces put into his mouth; after a few minutes so great was his relief, he insisted on having his mouth constantly filled with the ice: he now managed at my suggestion to swallow very small pieces of the ice, which he did with difficulty; however, in this he persevered. Through the night he had constantly fresh pieces of ice put into his mouth, and by the morning he was much relieved. He now swallowed some thin arrowroot and milk with much less difficulty. I ordered counter-irritation outside his throat and chest, and in a few days he was well, excepting that his mouth was quite raw: this, however, soon healed.

It is to the application of the ice, which in this case gave so much relief, that I wish to draw the attention of the Profession. I think in this case it had everything to do in saving this patient's life; so distressed was the breathing at one time from the swelling of the throat that I thought it advisable to be prepared to perform laryngotomy if required.

Strange to say, this patient had for some time suffered a great deal from chronic dyspepsia, but has never since he recovered from this accident been troubled with it.

I am, &c.

K. H. Bold Williams, M.R.C.S. Eng., L.R.C.P. Lond.

Llanstffraid, Conway, North Wales, October 10.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, November 1.

Mr. Prescott Hewett, President, in the Chair.

A report on Mr. Henry Smith's specimen of disease of the thyroid, by Drs. Murchison and Harley, was read. The specimen was one of cancer, but not primarily of the thyroid body. The growth was external, and had involved the thyroid secondarily.

Mr. Holmes exhibited an

OVARIAN CYST REMOVED BY OVARIOTOMY.

The operation had been performed two months ago. Mr. Holmes' chief reason for exhibiting the specimen was to avoid the imputation of concealing unsuccessful cases.

Dr. Gibb exhibited specimens from a case of

NECROSIS OF THE TURBINATED BONES AND VOMER,

expelled from the posterior nares of a gentleman, aged 45, affected with ozena since Christmas, 1863. A slough the size of an oyster came away once a fortnight, and the uvula was absent. Rhinoscopy showed large ulcers on the posterior surface of the velum, with red margins, extending into the floor of both nostrils, and involving the left turbinated bones. These were examined from time to time, and subsequently the slough was seen at the base of the septum. These sloughs continued to come away until July 21, when a large one was expelled, the size of a small hen's egg, containing the left middle turbinated bone. A great hollow was now seen with the rhinoscope at the floor of the nostrils, with deficiency of a part of the vomer. From this time the heretofore intolerable odour and all the distressing symptoms of ozena disappeared as if by magic, and the exposed surfaces of bone became covered up by membrane. When seen in September, he was found to be quite cured. The history was specific, and recovery was effected by constitutional as well as local treatment.

In reply to Mr. Mason, Dr. Gibb said that the antiseptic used was the permanganate of potash. He thought, however, that the inhalation of iodine vapour was the most effectual.

The President related a case in which, after sloughing of the palate, the whole under part of the basilar process came away, the anterior border of the foramen magnum, and part of the atlas with the articulating process of the odontoid.

Dr. Bristowe showed a specimen of

PLUGGING OF THE RIGHT MIDDLE CEREBRAL ARTERY.

A man 27 years of age had had good general health, when four days before admission he became giddy, but did not lose consciousness. He was subsequently hemiplegic on the left side. At the autopsy, softening of the right corpus striatum was found. The patient had had syphilis, and it was considered probable that the occlusion of the vessel might have resulted from syphilitic disease of its coats.

Dr. Murchison showed

HYDATID FLUID REMOVED BY TAPPING.

The specimen was of chief interest as regards treatment of hydatid cysts of the liver. The patient, a woman, 31 years of age, first had symptoms of peritonitis. When they had passed off she noticed a tumour in the region of the liver. When Dr. Murchison saw the patient the tumour was a globular, elastic, and painless swelling, partly in the epigastrium and partly in the right hypochondrium. She had subsequently several attacks of local peritonitis, and when she had been in the Hospital a week the pain became permanent, so as to suggest doubts as to the nature of the tumour. It was tapped by Mr. Hulke, and twelve ounces of fluid were withdrawn by a fine trocar. Now, six weeks from the operation, the patient may be regarded as convalescent. For a few days after the operation she was feverish, but not enough to excite any anxiety, especially as she was nervous and excitable at all times.

Dr. Murchison then remarked that although hydatid tumour of the liver did undoubtedly undergo spontaneous cure, yet it was doubtful if this often occurred. It was very rarely that a tumour recognised during life was known to disappear. Medical interference by iodide of potassium had been often tried, and had been tried in this case, but with no benefit.

In reply to Dr. Risdon Bennett, Dr. Murchison said there were no echinococci in the fluid, but there was much chloride of sodium and no albumen.

Dr. Risdon Bennett said that although operation in cases of hydatid cysts was justifiable, yet there were decided risks. One was that the bile ducts might be opened, and then the patient might suffer from draining of bile. In one case under his care, after the ordinary fluid from tapping, there was a purulent discharge, and next a flow of bile. Again, there was often considerable inflammation, and then constitutional irritation of great danger might be set up. In reply to Mr. Hulke, Dr. Risdon Bennett said that a small trocar had been used in his cases.

Dr. Harley said that he had recently received from Professor Erichsen some fluid drawn from a cyst of the thyroid gland of a woman. It was full of echinococci. Mr. Erichsen said that, two years before, he had tapped a cyst of this patient's liver, and he believed it was hydatid.

In reply to further remarks by Dr. Harley, Dr. Risdon Bennett said that he meant to infer, not that the bile ducts were directly opened by the trocar, but by subsequent inflammation in the cyst.

Dr. Bristowe said that the escape of bile after tapping a cyst of the liver was a new fact, but it might, however, be expected. He had exhibited a specimen in which the bile duct, communicated with such a cyst.

Dr. Broadbent showed specimens of

DILATATION OF THE PELVES OF THE KIDNEYS OF A CHILD FOUR MONTHS OLD.

When first seen the child's abdomen was much dilated, evidently by fluid; but the fluid was not general in the abdominal cavity, but chiefly in the lower part. A good deal of urine was drawn off by the catheter, but the abdomen remained enlarged. After this, consequent on friction of the abdomen by an ointment of iodide of potassium, an enormous quantity of urine was passed. After death the urethra was not examined; the catheter passed readily during life; but the obstruction must have been anterior to the bladder.

Mr. Christopher Heath said that Dr. Budd used to speak of a case at the *Dreadnought* which resembled Dr. Broadbent's in its chief features. In this case there was great distension of the bladder, ureters, and pelves of the kidneys, and the cause of obstruction was found in the urethra. It was due to a flap of mucous membrane obstructing the exit of the urine, but which did not prevent the passage of the catheter.

After some further remarks by Dr. Bristowe, Mr. Hulke, and Dr. Harley, Dr. Broadbent and Dr. Harley were requested to examine the specimen further.

Mr. Sydney Jones exhibited a specimen of

MALFORMATION OF THE FOOT.

It consisted of hypertrophy of the second toe. It was supposed to have been congenital. There was no malformation of the opposite foot.

Mr. Teevan exhibited two specimens of

DEPRESSED FRACTURE OF THE SKULL WHICH HAD NOT BEEN SUBJECTED TO ANY SURGICAL INTERFERENCE.

The patients, both adults, made good recoveries, and died, many years afterwards, from causes unconnected with the injuries received. In one case the fractured pieces were firmly consolidated and the edges bevelled off; in the other case, the cavity had been filled up by a firm membrane continuous with the periosteum, and the margin of the aperture had been rounded off. Mr. Teevan remarked that he exhibited these specimens to strengthen the view which, in these cases, was gaining ground—the advisability of leaving the cases to nature, and merely adopting an antiphlogistic treatment.

Mr. Christopher Heath exhibited

A LARGE FIBROUS TUMOUR OF THE SCROTUM REMOVED FROM A PATIENT IN THE WESTMINSTER HOSPITAL.

The man, aged 56, had noticed a gradually increasing tumour of the scrotum for the last thirteen years, which gave him no inconvenience but from its size. Six weeks before admission the skin over the tumour gave way at the lower part, and a bloody discharge took place, which persisted up to the operation. Mr. Heath removed the tumour with the left testis, and it proved to be a large fibrous tumour, closely connected with the back of the epididymis, but springing from the cellular tissue of the cord and of the scrotum. It was completely hollowed out, the interior being in a sloughy condition, and communicating with the external opening. The testis was healthy, but the tunica vaginalis was distended with the fluid of an ordinary hydrocele. On section the tumour proved to be of a fibrous character, and this was confirmed by microscopic examination. The patient made a good recovery.

Mr. Heath also exhibited a specimen of

CANCER OF THE OVARIES, PRODUCING FATAL OBSTRUCTION, FROM A WOMAN AGED FORTY-NINE.

She was admitted into Westminster Hospital after having been constipated for fourteen days. Purgatives and enemata were tried without effect, and upon passing a long tube up the rectum, a tumour was found pressing upon, and obstructing, the bowel. The passage of the tube gave exit to a large quantity of flatus with relief; but as the symptoms grew more urgent, it was proposed to open the bowel in the loin, but the patient was too exhausted, and finally sank after the obstruction lasting twenty days. On post-mortem examination the bowels were found enormously distended with flatus and liquid fæces, the pelvis being filled with a cancerous mass pressing upon the rectum. Upon removal and dissection it was found that both ovaries were affected with soft cancer, but the left was much the larger, the uterus (which was healthy), being drawn over to the left side. The rectum was not actually diseased, but was bound down to the side of the ovary in a sigmoid form, and so compressed that fæces could not pass. The whole of the peritonæum was scattered over with small tubercles, which, under the microscope, gave the ordinary appearances of medullary cancer. The lungs and pleuræ were quite healthy.

OBITUARY.

JOHN BERNARD RICARDS, R.N.,
Surgeon of H.M.S. *Galatea*.

The last news from Bermuda records the untimely end of this officer, who has fallen a victim to the prevailing epidemic, yellow fever, under peculiarly deplorable circumstances. Actuated by motives free from the incitement of probable promotion, he accepted the post of danger, away from the safe sphere of his own ship, and in ten days was numbered among the dead.

Mr. Ricards entered the navy in November, 1847, and after varied foreign service he joined the Arctic Expedition under Sir Edward Belcher, and thereby gained his Surgeon's rank in October, 1854.

As Surgeon he served on the West African and Mediterranean stations, and soon saw further distinguished service as Surgeon of the *Simoom* Hospital ship at the second taking of the Taku Forts, and the operations that led to the fall of Pekin.

Immediately after returning from China, he joined H.M.S. *Galatea* in October, 1862, and served in her in the Baltic and in the Gulf of Mexico. This ship being sent to succour the afflicted Bermuda colony, arrived there at the moment when the Naval Hospital being filled with fever patients, the original Medical staff was completely worn out, the principal lay dead, the second in extreme danger, and the two Assistant-Surgeons ill of the fearful malady. Under these appalling circumstances, Mr. Ricards nobly volunteered to be detached from his ship, and to be left at Bermuda to lend his experienced aid to the sick.

He took charge of the Hospital on September 23, devoted himself with zeal beyond his physical endurance to his self-imposed task, fell ill on September 29, and died on October 3.

The navy has undergone the loss of an able Medical officer, whose judgment was matured by very varied services, in scenes of war and the more quiet dangers of Arctic exploration, and whose steady perseverance fitted him for any arduous enterprise, or for any dangerous Professional work like that in which he has untimely fallen.

The shipmates from whom he but just parted, elated with high hope of increased utility, lament the loss of a friend whose social worth was highly appreciated by them.

Mr. Ricard's calamity offers a very striking example of how little that calm confidence grounded on familiarity with the worst forms of ordinary disease, and with the emergencies of warlike operations, will avail unacclimated persons, suddenly exposed to the more intense degrees of yellow fever agencies; in his case, spite of all his fitness in a Professional and service sense, the deadly infection must have commenced soon after his landing at Bermuda, and ended fatally after three days' exclusion from duty.

LEGAL INTELLIGENCE.

THE IRREPRESSIBLE MR. TALLEY.

THE INFORMATION AGAINST "DR. DE ROOS."—The adjourned hearing of the summons against the person calling himself Dr. De Roos took place on Tuesday last, at Uxbridge, at a Special Petty Sessions, held before T. Dagnall, W. W. Drake, and J. W. F. de Salis, Esqs. Mr. Talley again applied for an adjournment of the case, in order to obtain the presence of certain witnesses. This was opposed by the counsel for the defendant, and ultimately the magistrates came to the conclusion to refuse the application and dismiss the complaint without costs.

BOW-STREET, November 8.—Dr. Charles Watson, of Berkeley House, 1, South-crescent, Bedford-square, was summoned at the instance of Augustus William Burt, 7, Oval-road, Regent's-park, under the statute known as the "Medical Act," for falsely representing himself to be a Surgeon and Physician practising under the Act.

Mr. Talley, a solicitor, conducted the prosecution, and Dr. Watson was defended by Mr. Lewis, jun., of the firm of Lewis and Lewis, of Ely-place.

After several witnesses had been called, from whom nothing of any moment could be elicited,

Mr. Lewis submitted that no case had been made out against the defendant. It did not at all appear that he had represented himself as being registered, or as holding any English diploma.

Mr. Talley said he could not practise unless he was registered. He drew the magistrate's attention to a decision at Bristol to that effect.

Mr. Lewis said it was an insult to the magistrate to ask him to be ruled by the decision of unpaid magistrates at Bristol.

Mr. Flowers said the decision, if correctly reported, was clearly wrong in law. A man might practise and might be a skilful Practitioner without being registered. He had a perfect right to refuse to register. By doing so he exposed himself to certain disabilities. He could not recover fees by an action at law; and he could not hold any situation under Government, but he was not liable to penalties unless he represented himself as being registered, or falsely and knowingly assumed titles to which he had no right. He dismissed the summons.

MEDICAL NEWS.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their First Professional Examinations during the recent sittings of the Examiners :—

Peter A. Sullivan, County Galway; George Dods, East-Lothian; James Dods, East-Lothian; Arthur Hackett, Cork; William Holmes, Cork; Edgar Gailey, Annan; Daniel Forbes, Edinburgh; William S. Mackenzie, Sutherlandshire; John Grealy, Galway.

And the following gentlemen passed their Final Examinations, and were admitted L.R.C.P. Edinburgh, and L.R.C.S. Edinburgh :—

John MacWilliam Graham, Mullabrack; Joseph Hildreth Rockett, Yorkshire; Richard Dickinson O'Brien, Ennis; Edward Henderson, Edinburgh; James Watson, Dundee; Alexander Campbell Campbell, Aberdeen: William Charteris, Dumfries-shire; James Elliott, Yorkshire; William Alister, Catherwood, Donaghadee; Thomas M'Donald, Ross-shire; Edward Connellan, Cork; John M'Naughten O'Keeffe, County Kerry.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 8th inst., and when eligible will be admitted to the Pass Examination :—

Messrs. John Gittins and David Shoolbraid, students of Guy's Hospital; Alexander Wallace Jamieson and Thomas Dalton, of Edinburgh; Thomas Knight Salter. St. George's Hospital; Albert John Clapp, Cork; James Fernie, Middlesex Hospital; and Pierre Georges Cox, University College.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen passed their First Professional Examinations during the recent sittings of the Examiners :—

Thomas O'Hare, County Down; Charles H. Johnstone, New Brunswick.

And the following gentlemen passed their Final Examinations, and were admitted Licentiates of the College :—

Hugh Smiley Kane, County Antrim; Andrew Veitch, Edinburgh; John Douglas Lytle, County Derry.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, November 3, 1864 :—

Arthur Bayley Adams, Lymington, Hants; Walter Hugo Reed, Tiverton, Devon; Joseph Henry Benson, Cambridge; George Gill, Liverpool Royal Infirmary.

At the recent Examination for Prizes in Materia Medica and Pharmaceutical Chemistry, annually given by the Society of Apothecaries, the successful candidates were :—

First.—William Lively Shephard, St. Bartholomew's Hospital, a gold medal.

Second.—Stephen Wootton Bushell, Guy's Hospital, a silver medal and a book.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BARTON, JOHN K., M.D. Dub., has been appointed Lecturer on Surgery in the Ledwich School of Medicine, Dublin.

BECK, JAMES T., M.R.C.S. Eng., has been elected Medical Officer to the Cambridge Union Workhouse.

BENNETT, EDWARD H., A.B., M.B. Dub., has been elected Professor of Practical Anatomy in the Medical School of Trinity College, Dublin.

BUTT, WILLIAM F., M.R.C.S. Eng., has been elected Resident Assistant-Surgeon to the St. Pancras Workhouse.

DAVIS, ROBERT A., M.D., L.R.C.P., has been appointed Resident Medical Officer to the New Asylum for the county of Stafford at Burntwood.

FOOT, ARTHUR W., M.B. Dub., has been elected Assistant Professor of Practical Anatomy in the Medical School of Trinity College, Dublin.

HARDESTY, JAMES JEFFREY, L.R.C.P. and S. Ed., has been appointed Medical Officer and Public Vaccinator for the Upper District of the Parish of Whittingham, Haddingtonshire, and Public Vaccinator for the Parish of Bolton, Haddingtonshire.

HEYGATE, WILLIAM N., M.R.C.S. Eng., has been elected Resident Surgeon to the Reading Medical Dispensary.

HYDE, GEORGE EDWIN, M.R.C.S. Eng., has been appointed Surgeon to the Worcester Ophthalmic Hospital.

JEFFERY, EDWARD, M.R.C.S. Eng., has been appointed Assistant Medical Officer to the Stafford County Lunatic Asylum.

KEMPTHORNE, HENRY L., L.R.C P. Lond., has been appointed Resident Medical Officer to the Public Dispensary, Carey-street, Lincoln's-inn.

MCKENDRICK, JOHN GRAY, M.D., has been appointed Resident Medical Officer to the Eastern Dispensary, Whitechapel.

PAGE, ALEXANDER HOWARD, M.D. St. And., has been elected Junior Surgeon to the Royal Albert Hospital, Devonport.

WILLIAMS, CHARLES, M.R.C.S. Eng., has been elected Honorary Surgeon to the Norwich Dispensary.

WILTON, FRANCIS, M.R.C.S. Eng., has been appointed Resident Medical Superintendent to the Carmarthenshire, Pembrokeshire, and Cardiganshire new joint Lunatic Asylum at Carmarthen.

DEATHS.

CASEY, JOHN, Surgeon, at Chapel-terrace, St. Helens, Lancashire, on October 28, aged 76.

GARDINER, GEORGE, Surgeon, at Guiseley, near Leeds, on November 2, aged 66.

GRIMBLY, OWEN, M.D. St. And., at Banbury, Oxon, on October 31, aged 25.

HISLOP, PATRICK B., M.D. St. And., at Dean-park, Govan, Glasgow, on October 27, aged 43.

MACMAHON, JOHN, M.R.C.S. Eng., at Rush, Balgriggan, Co. Dublin, on September 9.

MARSLAND, ROBERT, M.R.C.S. Eng., at Oak-street, Manchester, on November 8, aged 38.

RICARDS, JOHN BERNARD, Surgeon H.M.S. *Galatea*, at the Naval Hospital, Bermuda, on October 3.

THORPE, GEORGE BOWER, F.R.C.S. Eng., at Staveley, Derbyshire, on October 25, aged 49.

DR. BRINTON has resigned the office of Physician to St. Thomas's Hospital.

TESTIMONIAL TO MR. HOWITT, OF PRESTON.—A very elegant piece of plate, value 100 guineas, has been presented to Mr. Howitt, F.R.C.S., Senior Honorary Officer of the Preston Dispensary, by a number of the supporters of that Institution as a token of regard for the valuable services rendered by him to the Dispensary during a period of nearly thirty years.

THE NEANDERTHAL SKULL.—We hear that Dr. Barnard Davis, F.S.A., is about to submit to the Anthropological Society of London, at its meeting on Tuesday next, a paper on the celebrated Neanderthal skull, containing original facts of considerable importance.

MEDICAL CORONER.—It is stated that Dr. Beard, Assistant-Physician of the Sussex County Hospital, is a candidate for the office of Coroner for East Sussex, vacant by the demise of F. H. Gell, Esq.

UNIVERSITY OF CAMBRIDGE.—The following gentlemen have been elected to scholarships on account of proficiency in Natural Science:—Brailey and Lankester, at Downing College, and Cooke, at Sidney College. A gratuity of £20 has also been given to Dickson, of Downing College, on account of proficiency in Natural Science. These gentlemen have entered at the respective Colleges to pursue the study of Medicine.

LIVERPOOL TOWN COUNCIL.—At the general annual election of Town Councillors for the Borough of Liverpool, on November 1, J. Stopford Taylor, Esq., M.D. Aberd., L.R.C.P. Edin., was elected by a large majority to represent St. Anne's Ward.

THE CHARGE AGAINST HENERY AND ANDERSON.—The inquiry before Mr. Yardley into the charge of extortion against the above individuals terminated on Tuesday last, both of the defendants being committed for trial at the Central Criminal Court. Bail was accepted on behalf of Henery, Anderson remaining in custody. It is understood the trial will take place on the 21st inst.

ROYAL INSTITUTION OF GREAT BRITAIN.—At the General Monthly Meeting held on Monday, November 7, 1864, William Pole, Esq., M.A., F.R.S., Treasurer and Vice-President, in the chair, Dádábhái Naoroji, Esq., was elected a Member of the Royal Institution. The Chairman announced the following addition to "the Donation Fund for the Promotion of Experimental Researches :"—Professor Faraday (2nd annual donation), £20; J. P. Gassiott, Esq., jun., £20. The presents received since the last meeting were laid on the table, and the thanks of the members returned for the same.

THE CASE OF DR. S. DAY-GOSS.—We are requested to publish the following circular:—"The following gentlemen deeply sympathise with Dr. Samuel Day-Goss in the painful position in which he has been lately placed in having to defend himself against an indictment for manslaughter, the result of a combination of circumstances which admitted of a full explanation, and which, when fairly and dispassionately considered, in no way justified the proceedings. They believe that his Professional brethren are desirous of bearing him harmless in regard to the expenses he has incurred in carrying out his defence, and have therefore formed themselves into a Committee for the purpose of collecting subscriptions for the above object. Subscriptions of half a guinea will be received by any member of the Committee:—Blades, C. Corbett, M.D., 53, Newington-place, S.; Ebsworth, Alfred, F.R.C.S., 11, Trinity-street, S.E.; Iliff, Wm. T., M.D., 19, Canterbury-row, S.; Mitchell, Joseph T., F.R.C.S., 8, Percy-place, Clapham-road, S.; Otway, C. W. C., F.R.C.S., 7, Canterbury-row, S.; Rugg, G. P., M.D., 7, Clapham-road-place, S.; Stowers, Nowell, M.R.C.S., 30, Newington-place, S., Treasurer; Taylor, David, M.R.C.S., Kennington-row, Kennington-park, S."

*** Dr. Goss's case will be in the memory of all the readers of this journal. We sincerely hope that the above appeal will be widely responded to, and that Dr. Goss will be held harmless from the expenses of his very cruel and unjust prosecution.—ED.

REOPENING OF THE PARIS FACULTY OF MEDICINE.—This was done in the usual state by M. Tardieu, the Dean of the Faculty, M. Duruy, the Minister of Public Instruction, being present, which is an unprecedented occurrence. There was an abundant distribution of prizes, and we fear that, as in our own schools, these are somewhat too easily gained, for M. Tardieu gave but an indifferent account of the results of the probatory examinations the students are obliged to undergo. He says that of 2677 of those undergone during the past year only a third obtained even a mediocre acknowledgment, while only 13 out of 1400 received marks of the highest approbation. The Minister called the attention of the students to the manner in which they neglected the doctrinal teaching, and pointed out its importance. "I have been sometimes vexed to hear," he added, "that the Practitioners on the other side of the Rhine are more learned, and those of the other side of the Channel more practical, than our French Practitioners. Now, young men, you must beat these Germans and English. I have, too, often heard it gravely discussed whether Medicine is an art or science. It is both. A light, skilful, and ready hand, with a well-filled head, should be your programme. Fill your head with sound ideas, in order to render your hand firm and sure."

THE ULSTER MEDICAL SOCIETY.—The anniversary dinner of the members of the above Society took place on Tuesday evening, in Mr. Thompson's rooms, Donegal-place, Belfast. Amongst those present were—Dr. Stewart, President of the Society, in the chair; Dr. MacCormac; Prof. Ferguson, Q.C.B.; Dr. Moore (James), Vice-President; Dr. Pirrie; Dr. Cumin, Treasurer; Dr. Harkin; Dr. M'Crea; Dr. David Moore; Dr. William MacCormac; Dr. Michael M'Gee; Dr. Whitaker, Secretary; Dr. M'William; Surgeon John Smyth; Dr. H. Rea. The usual loyal toasts having been given, they were succeeded by "The Medical Departments of the Army and Navy." The President, in proposing this toast, said he was sorry that there were no members of either branch of the service present to call upon to speak to it; he could not, however, permit the opportunity to pass by without observing that their brethren in the army particularly had every reason to feel deeply aggrieved and wronged in respect of the inexcusable conduct of the military authorities, in regard to the Queen's Warrant of 1858, having rendered it to all intents and purposes a dead letter, the consequence of which was, that candidates of any spirit were thus prevented from coming forward in sufficient numbers to fill the vacancies in existence; and not only this, but to cause both Surgeons and Assistant-Surgeons to resign their commissions. This was the worst policy imaginable, and sooner or later it would be found to be so. (Hear, hear.) "The Medical Department of the Queen's College, Belfast," "The Medical Charities of Belfast," "The Ulster Medical Society," and numerous other toasts having been given during the evening, the company separated, much pleased with the entire arrangements of the day.

THE CASE OF GEORGE KING.—The following appeared in the *Times* of Thursday, November 10 :—

"To the Editor of the *Times*.—Sir,—I beg to send you a resolution of the Weekly Board of Governors of St. George's Hospital, passed this day, viz. :—'That the Secretary write to the Editor of the *Times*, stating that a verdict of a coroner's inquest on the body of George King had been brought under the notice of the Weekly Board, upon which they referred the question to the Medical Committee of the Hospital, from whom they have received the following report, with which the Board are perfectly satisfied, and request it may be published in the *Times*.'—I have the honour to be, Sir, your obedient servant, DAVID L. DUVAL, Secretary.—St. George's Hospital, S.W., November 9.

"The Medical School Committee beg to report that, from the evidence of Mr. Freeman, House-Surgeon, and Mr. Jones, Assistant-Apothecary (who were examined by the Committee), it appears that George King was admitted into St. George's Hospital on September 30, about 5 p.m., in a state of unconsciousness. He was immediately examined by the House-Surgeon, Mr. Freeman, about the face, head, and hands, with the view to the detection of any external injury, no trace of which could be discovered. Mr. Freeman, judging the symptoms to be those of intoxication, sent for the Assistant-Apothecary, Mr. Jones, who also, and separately, examined the man for external injury, and found none; but from the odour of the breath and the matter subsequently vomited, which smelt strongly of spirits, Mr. Jones had no doubt that George King was labouring under the influence of liquor. George King remained in the Hospital for two hours and a quarter, during which period he was examined separately three different times by Mr. Freeman and Mr. Jones. About an hour from his admission, and after vomiting, George King began to recover consciousness, and at the expiration of the two hours and a quarter was so far recovered that permission was given to the policeman to remove the man from the Hospital, provided that his residence could be ascertained. Contrary to the expressed condition of this permission, George King was removed from the Hospital to the station by a policeman without the knowledge of either Mr. Jones or Mr. Freeman. The man walked out of the Hospital; and it has been given in evidence before the Coroner that he walked to the police-station in King-street, Westminster. The Committee, from the confidence they entertain in the Professional ability and truthfulness of Mr. Freeman and Mr. Jones, beg to express their belief in the statements made by them, and that every proper care was taken in the treatment of George King.—W. E. Page, Chairman, Nov. 8."

DEATHS IN ENGLAND.—The following is a summary of the Registrar-General's quarterly return, just issued:—The deaths in the quarter ending September 30 were 112,133. People died at the rate of 1219 daily, while 1965 children were born daily. The natural increase of the population was 68,619. The total number of deaths was almost the same as that of the September quarter of last year, but considerably more than in that of 1862. Yet, though the last two summer quarters present the same aggregate result, they do not exhibit the same uniformity in detail. The returns of the late summer, as compared with those of 1863, are heavier in London, the West Midland Counties, Monmouthshire, and Wales; lighter in the North-Western Counties, Yorkshire, Durham, Northumberland, Cumberland, and generally in other parts of England. In Suffolk the deaths declined from 1850 to 1425; in Cornwall from 2037 to 1680; in Gloucestershire from 2606 to 2254; in Lincolnshire from 1953 to 1764. The annual rate of mortality for the quarter in England and Wales was 2·139 per cent., against 2·000 as the average. With the exception of the summer of last year, the death rate was higher than in any previous corresponding season since the cholera summer of 1854. The causes which operated to produce this excess were not confined to cities, but attacked town and country, and raised the deaths in both in equal amounts above their respective averages. The town and country rates of mortality were 2·374 and 1·831 per cent., against their averages 2·253 and 1·713. The mortality is lowest in the summer quarter. This rule holds invariably in England in ordinary seasons, and only fails to assert itself when malignant cholera, favoured by the heat of summer, rages over the country. But it is matter of interest to notice in the above table that while it obtained as usual in ten of the great divisions of the kingdom, the rule did not hold good in London, where the mortality of the summer quarter was 2·406 per cent., and exceeded that of the preceding spring, when it was 2·353. The undue prevalence of diarrhœa or English cholera in London, from whatever cause it may arise, has made summer more fatal to children than spring. The deaths from that disorder last quarter in the metropolis were 2210; and in the ten years 1851-60 it was much more fatal there than in any other division except the North-Western counties, Cheshire, and Lancashire. The districts of the cotton manufacture have suffered greatly in former times from the complaint in question; and it may, perhaps, be accepted as a symptom of comparative exemption from it, and of improved sanitary condition, that the mortality per cent. was 2·322, against 2·470 in the spring months. Lancashire was at least as healthy as Yorkshire, in which the mortality of last summer was 2·366. The healthiest of all the divisions was the South-Western counties (Wiltshire, Dorsetshire, Devonshire, Cornwall, and Somersetshire), in which the death-rate was 1·820. It was but slightly higher (1·866) in the South-Eastern portion of the island, or that which lies south of the Thames. From its minimum it ranged over the country, through various gradations, to its maximum, which was 2·406, and which prevailed in London.

CRIMINAL POISONING IN PARIS.—By a return obtained by M. Chevallier, it results that the following were the number of cases of criminal poisoning convicted before the Paris Parquet in the ten years 1853—62:—Poisoning by phosphorus, 154; by arsenic, 172; by sulphate of copper, 71; by sulphuric acid, 28; by verdigris, 23; by cantharides, 17; by opium, 8; and by various other substances, 42—making a total of 515 cases. From this document it results that phosphorus is far more frequently employed than is generally believed, being second in rank only to arsenic. Besides these 515 convictions, there were 910 cases in which no conviction took place, and 525 in which it was not deemed necessary to institute proceedings; but in these two categories the nature of the poison employed is not specified.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Nemo.—The two can recover by sueing conjointly. See Turner and Smith *v.* Reynall, 32, L. J., C. P. 164. B. could not recover by sueing alone.

The Case of Mrs. Thomas.—The following contributions have been received:—Mr. Robarts, 10s. 6d.; Mr. Vawdrey Lush, 10s. 6d.

An Invalid.—The case is perfectly well known, and constantly treated by all Medical men. Consult the oldest Physician or Surgeon of your acquaintance.

POOR-LAW MEDICAL RELIEF.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I shall feel obliged by your finding space for the following letter.

I am, &c.

Weymouth, November 9. RICHARD GRIFFIN.

"12, Royal-terrace, Weymouth, 8th November, 1864.

"My Lords and Gentlemen,—I take the liberty of calling your attention to a report of the proceedings of the Southampton Board of Guardians, at their meeting on November 1, in reference to 'expensive medicines.' In the speech of the mover of the resolution it is stated 'it was impossible for their Medical officers, with their present pay, to give to the pauper patients such expensive medicines as those referred to in the letter.' My Lords and Gentlemen, this is the statement of a guardian of a large and influential incorporation, and was acquiesced in by the whole Board, as is proved by their resolution. For years past your Medical officers, through me, have told you the same. Surely, then, you will no longer delay to apply a remedy for such a lamentable state of things. I earnestly entreat you at once to lay down a rule by which all salaries shall be fixed, and not leave it discretionary for one Board of Guardians to give a salary which averages less than one shilling per patient, whilst another Board gives a salary which averages many shillings per patient. The latter part of the speech of the Southampton guardian is most important, and is as follows:—'For his own part, he hoped to see the time when that Board had a dispenser and dispensary of its own, and when their Medical officers should be paid without having to supply medicines, but simply to prescribe them, for he believed it would prove of benefit to the town by the, in many cases, restoration of the poor, to the great relief of the rates.' Your Medical officers, as a body, recommended to the Select Committee on Poor Relief, amongst other things, the establishment of Dispensaries. The Committee unfortunately ignored that recommendation, but now that you have a similar recommendation from a Board of Guardians of a large and important town, I pray you not lightly to reject it, as its adoption would cure one-half of the evils complained of by your Medical officers, and be of vast benefit to the poor. The salaries of your Medical officers should be based on three payments. 1. Pay for Medical advice and attendance a certain sum in proportion to the number of patients and distance to be travelled. 2. Pay for extra Medical services, as confinements, accidents, etc. 3. In those Unions, or parts of Unions, where the inhabitants are widely separated, pay your Medical officers a fixed sum per patient for medicine, but in all large towns and parishes, under Local Acts, establish Dispensaries; in the metropolis one Dispensary might serve for two or more parishes. Adopt this course, and you will remove much of the ill-feeling which now exists.

"As the General Council of Medical Education and Registration of the United Kingdom is a legally constituted body, I think it would be well to consult them as to the amount to be paid the Medical officer; if you adopt this course I feel sure you will give general satisfaction.

"I have prepared a short draft bill on the subject of Medical relief, which it is intended to be submitted to Parliament next session. If you desire it I shall be happy to forward a copy for your perusal, and I trust approval.

"I have the honour to be,

"My Lords and Gentlemen,

"Your obedient servant,

"The Poor-Law Board." "RICHARD GRIFFIN.

Extract from the *Hampshire Independent* of November 2.—"Southampton Board of Guardians, November 1.—Upon the question of providing medicines, Mr. Dowman said that he doubted not the Surgeons of Southampton would not think that he was saying more than he ought when he said it was impossible for their Medical officers with their present pay to give to the pauper patients such expensive medicines as those referred to in the letter (from Mr. Hawley, a Poor-law inspector), and which were universally admitted to be almost the only specifics in certain cases. For his own part, he hoped to see the time when that Board had a Dispenser and a Dispensary of its own, and when their Medical officers should be paid without having to supply medicines, but simply to prescribe them, for he believed it would prove of benefit to the town by the, in many cases, restoration of their poor, to the great relief of the rates. He proposed as a reply to the query, that it was in the opinion of the Board undesirable for the Medical officers to supply any medicines whatever, but that Guardians should have Dispensaries, and be ready themselves to supply whatever medicines might be required. Mr. Cave having seconded the proposition, it was carried unanimously."

THE DIRTY QUACKS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you permit me to say, in answer to Dr. Blount's letter on the "Distribution of Indecent Books," that the sender of these books is another of the "dirty quacks?" The person who has assumed this name succeeded in getting possession of the house in Charlotte-street about twelve months since; this he gaudily fitted up after the usual Jew-quack fashy style, and I am informed by my neighbours that the postman delivers a large packet of letters at the house daily, so that he appears to be doing a roaring trade. Another of the tribe (and one, I believe, belonging to the same family) was brought up before the Bow-street magistrates on Monday last; he escaped through some technical flaw in the proceedings. This member of the quack fraternity advertises himself alternately under the assumed names of Dr. Watson and the Rev. A. Hill, M.A. His solicitor told the magistrate that his client held diplomas from several (unrecognised and unknown) colleges, and in his advertisements he also holds forth his connexion with the Lock and other of our Hospitals.

When will the legally-qualified members of our Profession see the necessity for purging themselves of these "dirty quacks?" When will they unite and go to the Legislature and ask for an amendment of the 40th clause of the Medical Act: an Act it was expected would do so much for us?

I am, &c.

Bloomsbury. M.R.C.S.

Mr. Talley and Mr. Rogers.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—A word in rejoinder to Mr. Talley, who has volunteered an explanation of his extraordinary conduct in your columns of last Saturday, but has yet failed to show the correctness of his assertion, "that his proceedings were initiated by the Medical Council." The confession that he addressed to the official organ of that body an inquiry whether I was a registered Practitioner, is proof positive that the prosecution was his, and not theirs. The mania for publicity is chargeable to Mr. Talley, and not to me, since my connexion with that gentleman's prosecutions could hardly be creditable to me. He, however, has been persistently seeking notoriety, and deserves the congratulations of the Profession upon his success in achieving renown. In thanking you in anticipation for your insertion of this letter, I am, &c.

M. C. Rogers, M.R.C.S.

18, New Burlington-street, Regent-street, W., November 10.

Advertising Quacks—Mr. Talley.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Dr. Blount has forestalled me in sending you one of Dr. Hammond's pamphlets. I had intended doing so last week, the book having been given to me by a schoolmaster, upon whom I was in attendance. It had been sent to one of his family (he has three daughters), but fortunately he discovered its nature, and therefore prevented its perusal, or we might never have known the consequences to which it might have led.

He also gave me a paper containing the enclosed advertisement, which he pointed out to me, saying that he overlooked all papers, and if he found anything objectionable in them, he did not allow them to be seen. Surely it can only be meant as a "skit" upon Mr. Talley after his proceedings against the unregistered Practitioner.

I am, &c. An Old Subscriber.

*** The following is the advertisement to which our correspondent calls attention. We should be glad to learn from Mr. Talley himself whether he is responsible for it:—

HINTS TO HUSBANDS, AND GOOD NEWS FOR THE WOMEN.
96 Pages of Professfonal Information, published by authority, entitled

Man-Midwifery and the Results; with a glance at the "spy tube," and the character of the "peeping doctor."

Also a list of qualified Matrons.

"Put a whip in every honest hand
To lash the rascals naked through the land."

Post free for Twelve Stamps—W. Talley, Esq., Beaconsfield, Buckinghamshire.

The Army Medical Department.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The following plan for the reorganisation of the Army Medical Department is submitted to you for insertion in your journal, and in the hope of eliciting your approval or your comments:—

1st. That the examinational test be strictly enforced.

2nd. That no Medical man be employed, under any denomination whatever, excepting those who have proved themselves qualified and are duly commissioned for general service like their brethren. This clause of course does not refer to "coast men."

3rd. That the following schedule be adopted:—

Present Denomination.	Future Denomination.	Relative Rank.	Pay, daily.
Assistant-Surgeon .	Assistant-Surgeon .	Lieutenant . .	10s.
After 7 years, Assistant-Surgeon . .	Lieut.-Surgeon (by Gazette) . . .	Captain . . .	13s.
Surgeon . . .	Surgeon . . .	Major . . .	£1.
After 18 years, Surgeon-Major . .	Surgeon-General .	Lieut.-Colonel . .	£1 5s.
Deputy-Inspector-General . .	Same as now.		
Inspector General			

That the emoluments and advantages of each relative grade be strictly accorded in the true spirit of the 17th clause of the Warrant of 1858, and that officers in command of battalions, and generals in command, be enjoined to see that no difference be made between the "combatant" and "non-combatant," to the disparagement of the latter, beyond what is laid down in that clause.

4th. That retirement be fixed at twenty-one years.

5th. That the Department be replaced among the "military," and not the "civil," departments of the army. I am, &c.

October 20, 1864. Hope.

The Duke of Cambridge's Address at Netley.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—It is convenient sometimes to raise a false issue and ignore the real question in dispute, and such appears to have been the case at Netley the other day when H.R.H. the Field-Marshal-Commanding, in complimenting the Medical cadets on their moral courage in joining the service, lent countenance and currency to the notion which some combatant officers affect to entertain when they assert that Medical officers are ambitious of military rank and command.

His Royal Highness would have won golden opinions of the Department had he, instead of alluding to a feeling which has no existence, assured his audience that Royal Warrants would be religiously respected; that already certain grievances had been redressed; that Medical officers were no longer liable to fines in passing recruits, nor required to brand deserters; and that forage allowance is now granted in accordance with relative rank.

It would have been satisfactory also if His Royal Highness had been in a position to announce that a Committee were in deliberation as to the propriety of allowing a retirement after twenty years' service, and of improving the position of Assistant-Surgeons who, after fifteen years, were unpromoted. The Surgeons also would have been gratified to learn that promotion to the administrative ranks would no longer be governed by influence or accident, but placed on the only satisfactory basis of seniority, as in the scientific corps of Artillery and Engineers.

An intimation of this nature would have encouraged the juniors, and been highly acceptable to the Department generally.

I am, &c. A Regimental Surgeon.

The Griffin Testimonial Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The following subscriptions have been further received on behalf of the above fund:—C. W. Chaldecott, Esq., Dorking, 10s. 6d.; J. L. Jardine, Esq., Dorking, per C. W. Chaldecott, Esq., 10s. 6d.; G. B. Norman, Esq., Basford, 10s. 6d.; W. Cooke, Esq., Tunbridge, 10s.; Dr. Sinclair, Halstead, 10s. 6d.; W. W. Howard, Esq., Glossop, 10s.; W. V. Lush, Esq., Salisbury Infirmary, 5s. Amount previously announced, £92 5s. 6d.; received at the *Lancet* office, £5 13s. I am, &c.

Robert Fowler, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, November 9.

COMMUNICATIONS have been received from—

Dr. George Scott; Dr. J. Usher Huxley; Apothecaries' Hall; Dr. W. Wilson; University of Cambridge; An Old Surscriber; Dr. Smart, R.N.; Dr. Humphry; Nemo; Lenoir Prize Medal Gas Engine Company; Royal Institution; Mr. James Robertson; Dr. Stewart; An Invalid; Mr. R. Griffin; Dr. Hughlings Jackson; Harveian Society of London; Dr. J. J. Hardesty; Dr. Robert Fowler; M.R.C.S.; Mr. W. Vawdrey Lush; Professor Greene; Dr. Dukes; Mr. T. W. Blake; Dr. Devenish; Dr. S. Macmahon; Mr. Thomas Wild; Dr. J. W. Irvine; Mr. M. C. Rogers.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 5, 1864.

BIRTHS.

Births of Boys, 1019; Girls, 998; Total, 2017.
Average of 10 corresponding weeks, 1854-63, 1728·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	757	697	1454
Average of the ten years 1854-63 . .	573·0	553·8	1126·8
Average corrected to increased population . .	..	..	1239
Deaths of people above 90	..	2	2

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa
West . .	463,388	..	14	17	1	5	15	4
North . .	618,210	6	5	17	4	8	25	1
Central . .	378,058	2	4	13	..	2	12	4
East . .	571,158	..	23	24	2	2	19	3
South . .	773,175	1	11	39	3	7	29	6
Total . .	2,803,989	9	57	110	10	24	100	18

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·076 in.
Mean temperature	42·4
Highest point of thermometer	53
Lowest point of thermometer	30·1
Mean dew-point temperature	37·5
General direction of wind	N.N.E. & E.
Whole amount of rain in the week	0·91 in.

APPOINTMENTS FOR THE WEEK.

November 12. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

14. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

15. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Anthropological Society of London, 8 p.m. W. T. Pritchard, Esq., "On the Viti Islanders." W. Bollaert, Esq., "On the Astronomy of the Red Man of the New World." Dr. Barnard Davis, "The Neanderthal Skull; its Peculiar Formation Explained Anatomically."

Pathological Society, 8 p.m. Meeting.

16. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

Hunterian Society, 8 p.m. Dr. G. H. Sutton, "On Fibroid Disease of the Lungs."

17. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

Harveian Society of London, 8 p.m. Clinical Discussion "On Sore Nipples, Mammary Abscess, and Remedies for the Excitation and Suppression of the Secretion of Milk."

18. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

SAVORY & MOORE,

Chemists to Her Majesty, H.R.H. the Prince of Wales, and His Majesty the King of the Belgians.

PRIZE MEDAL—INTERNATIONAL EXHIBITION, 1862,

"For Excellence of Manufacture of Medicine Chests, and for an Ingenious Method of Fitting Military Panniers."

Alkaline Solutions of the Hypophosphites of Lime, Soda, and Potash, prepared from the Formula of J. Taylor, Esq., Surgeon, Liverpool.

MANUFACTURERS OF

GRANULAR EFFERVESCENT PREPARATIONS.

Granular Effervescent Citrate of Iron and Quinine. Citrate of Quinine. Citrate of Potash. Ammonio-Citrate of Iron. Citrate of Lithia. Carbonate of Lithia. Salts of Vichy. Carlsbad, and other Mineral Waters.—(*Introduced by* Savory & Moore.) Granular Effervescent Citrate of Magnesia. Citro-Tartrate of Soda. Iodide of Iron, &c., &c.

THE IMPROVED EYE DOUCHE

HAS THE FOLLOWING IMPORTANT ADVANTAGES OVER ALL OTHERS :—

It is used with the greatest ease with one hand only.—Is readily adjusted to the eye in every position.—Any quantity of fluid can be used, and no Reservoir required.—Is free from the complications and derangements liable to the improperly-called double-action Syringes, fitted with air-chambers and valves.——"*Most useful in many affections of the eyes.*"—The Lancet.

Cod-liver Oil with Quinine. Cod-liver Oil with Iodide of Iron. Essence of Sumbul.
Datura Tatula (*not Datura Stramonium*), for Asthma. Sarracenia Purpurea, for Small-Pox. Liquor Bismuth, *Schacht.*
Solution Magnetic Phosphate of Iron, *Lightfoot.* The Enemas, recommended by T. J. Ashton, Esq.
The Uterine or Vaginal Douche, Dr. Graily Hewitt.
Thuringian Forest PINE LEAF WOOL and OIL, for Gout, Rheumatism, Lumbago, &c., &c.

143, NEW BOND-STREET, LONDON.

NATURAL MINERAL WATERS OF VICHY,

Efficacious in Stomach, Liver, and Renal Diseases; Gout, Rheumatism, Diabetes, &c.

Also, the celebrated OREZZA MINERAL WATER, containing Iron, and which is extensively prescribed as an invaluable Tonic.
VICHY PASTILLES, the best Digestive Lozenges; and VICHY SALTS for Baths. Also, other French and German Natural Mineral Waters.
VICHY WATERS COMPANY (only Depôt in Great Britain), 27, MARGARET-STREET, REGENT-STREET, LONDON, W.

BARTH'S OXYGEN WATER holds free Oxygen in solution. It gently stimulates the functional action of the stomach and secretory organs, and is a very useful beverage. Wentworth Scott's Analysis gives as contents of a bottle—"Nearly half an imperial pint of pure distilled water, and about 13·5 cubic inches, or 4·6 grains of gaseous oxygen; equivalent to that contained in 21·4 grains of chlorate of potash." 4s. per dozen.
OXYGENATED WATER COMPANY (LIMITED), 36, LONG-ACRE.

International Exhibition, 1862.—The only Prize Medal
FOR

"WATER CUSHIONS and BEDS"

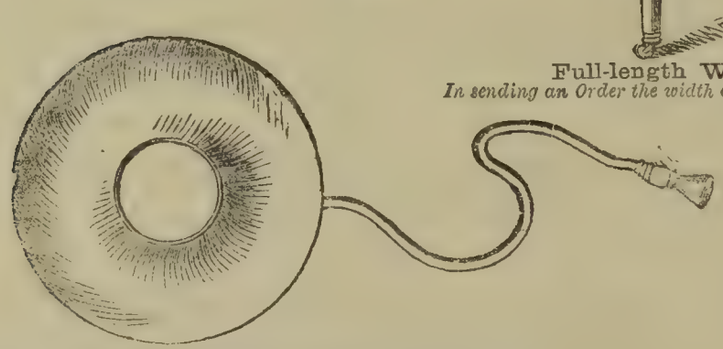
WAS AWARDED TO

W. HOOPER, 7, Pall Mall East, and 55, Grosvenor-street, London.

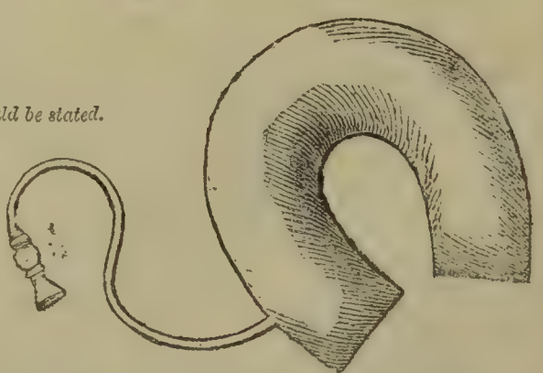
USED BY THE ROYAL FAMILY AND ALL CLASSES OF INVALIDS.

ALSO IN H.M. ARMY AND NAVY AND THE INDIAN PRESIDENCIES.

Full-length Water Mattress.
In sending an Order the width of he Bedstead should be stated.



Circular Water Cushion, for Sitting on.



Crescent Water Cushion, for the Sacrum.

ELASTIC BAGS, for applying dry cold or dry heat, maintaining their elasticity under all temperatures, from Zero to 212° Fahr.
WATERPROOF SHEETS, INDIA-RUBBER URINALS, ENEMAS, &c.

ORIGINAL LECTURES.

COURSE OF
LECTURES
ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D., F.R.C.P.,
Professor in University College, and Assistant-Physician to University College Hospital.

Lecture VIII.

OXALIC ACID DIATHESIS—OXALURIA—ITS CLINICAL SIGNIFICANCE AND TREATMENT—MULBERRY CALCULI.

Chemistry.

The well-known poison, oxalic acid, which so closely resembles the sulphate of magnesia in appearance as to be frequently mistaken for it, although one of the most powerful of the organic acids, appears to be an almost constant component of the blood. It is, however, rarely present in sufficient quantity to give rise to any inconvenience, and is only excreted from the kidneys in appreciable amount under certain abnormal conditions of the system, or after having been taken in medicinal or poisonous doses. Its presence in solution is easily recognised by the property it has of giving with any soluble salt of lime a white precipitate possessing well-defined crystalline characters. As usually met with in the urine, the oxalic acid is already in combination with lime, and fortunately it is so, for the quantity is generally so small that, were it not for the facility with which the crystals of oxalate of lime are recognisable with the microscope, its presence, in the majority of instances, would escape detection.

The oxalate of lime is most readily detected in the following manner:—Put about six ounces of freshly-passed urine into a conical glass, and after it has stood for eight or ten hours, place a drop of the sediment under the microscope, and, as the crystals are exceedingly minute objects, examine with a high power, at least a-quarter of an inch. If the urine has deposited some mucus, the mucus ought also to be examined, for the oxalate of lime crystals are often entangled amongst it, and are thereby prevented falling to the bottom of the vessel. The various forms assumed by the crystals as seen under the microscope are represented in Figure 14.

Fig. 14.

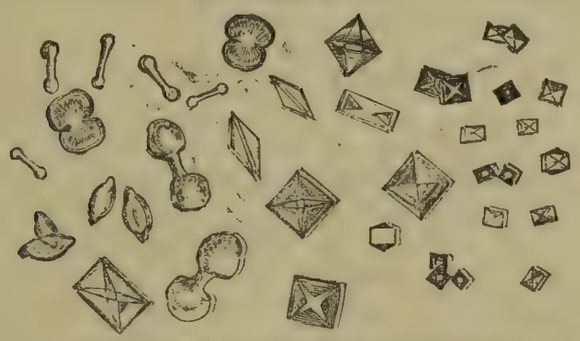


Fig. 14.—Oxalate of lime from human urine.

They may be divided into four well-marked groups: the octohedron, the dumb-bell, the irregular disc, and the well-defined diamond-shaped crystal. Of all these four forms, however, it is the octohedron alone which is characteristic of the oxalate of lime. Lithates may be found as dumb-bells, carbonate of lime as discs, and uric acid as small diamond-shaped crystals, whereas the only other urinary ingredient which ever crystallises as octohedrons is the chloride of sodium; but there is no possibility of error on that score, as it is so extremely soluble as never to appear as a spontaneous deposit in the renal secretion. Furthermore, it may be remarked that, even in those cases where the oxalate of lime assumes the shape of dumb-bells, discs, or diamonds, there usually happens to be present at the same time several octohedrons, so that the danger of falling into error regarding the nature of the deposit is very slight.

The only two sediments that I can imagine it possible the oxalate of lime can be confounded with are those of triple phosphates and uric acid. The prisms of the former may perhaps sometimes to beginners appear almost octohedral in shape, and the diamonds of the latter look so small as to lead to the idea of their being oxalates. But even then a trifling chemical manipulation will set the point at rest, for by the addition of acetic acid the phosphates will be dissolved, and by the addition of caustic potash the uric acid will disappear, while the oxalate of lime crystals, on the other hand, resist the action of either of these agents.

When the presence of oxalic acid in the urine in a free state is suspected, to a portion of the liquid is to be added a few drops of acetic acid, and then a solution of a salt of lime—chloride, for example—and the mixture placed aside for a few hours to crystallise. The sediment is then to be examined microscopically as above described.

Quantitative Analysis.—To make a quantitative estimation of the oxalic acid in human urine is extremely difficult, and for clinical purposes one usually contents himself by guessing at the amount from the number of oxalate of lime crystals present in the field of the microscope. But in cases where it is deemed advisable to make a closer approximation of the amount of oxalic acid daily excreted by the kidneys, the following method is to be adopted. The urine for the twenty-four hours is collected and carefully measured. To a sample equal to 200 c.c. is then added some milk of lime, and the mixture evaporated to dryness. The residue, after being acidulated with acetic acid, is next extracted with repeated portions of alcohol, and the alcoholic solution shaken up with about 50 per cent. of ether, which throws down the oxalate of lime as an insoluble deposit. This is collected, washed, dried, and weighed, and the whole amount passed in the twenty-four hours estimated therefrom in the usual way. (See the formula under the head of uric acid.)

Physiology.

It is still a debated question whether or not oxalic acid is a normal constituent of the human frame. Böcker says he passes ·092 gramme (1·42 grains) in his twenty-four hours' urine; but, whether this amount is furnished by the disintegration of the tissues, or is the direct product of the food, it is extremely difficult to say. Oxalic acid is widely distributed throughout the vegetable kingdom. Many fruits, and the majority of vegetables, contain considerable quantities of it, whilst in rhubarb and sorrel it exists in great abundance. Moreover, many foods which do not naturally contain oxalic acid are readily transformed into it in the system. Among these may be mentioned starch, sugar, vegetable acids, salts of the vegetable acids, and carbonated alkalies. It is therefore almost impossible to prevent its finding access to the body, and consequently my own impression is that it ought to be regarded as one of the normal ingredients. While making this assertion, however, I wish specially to guard against it being supposed that I am one of those who look upon the presence of oxalate of lime in the urine as a matter of trivial importance, for, on the contrary, as *normal urine never contains any sediment*, the appearance of oxalate of lime or of any other crystals within twelve, or even twenty-four hours, after the urine has been passed is a sure indication of the existence of an unhealthy condition of the system—temporary it may be, but nevertheless abnormal.

Oxalic acid to be normally eliminated from the body ought, like all the other natural ingredients of the frame, to be excreted in an invisible form, and I strongly suspect that it will yet be found that the healthy human body does in reality daily eliminate a small quantity of oxalic acid in a soluble and consequently invisible form, for every now and then on evaporating what has appeared to be normal urine to nearly dryness, I have met with crystals of the oxalate of urea (Fig. 15), both the oxalic acid and the urea having remained

Fig. 15.

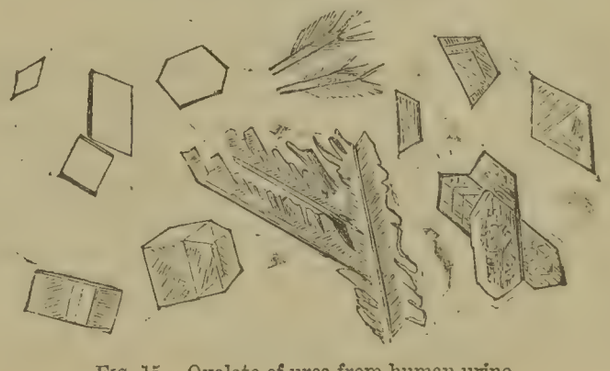


Fig. 15.—Oxalate of urea from human urine.

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—Ed. *Med. Times and Gaz.*

invisible until the liquid was highly concentrated. Oxalic acid has in some cases been detected in human blood. Garrod, for example, in searching for uric acid in the serum, has occasionally encountered crystals of the oxalate of lime.

When oxalates are given in large doses medicinally, as well as when a poisonous quantity is taken either suicidally or by accident, the blood becomes so saturated with the acid that leeches fall off and die ere they have been many minutes attached to the skin, and before they have sucked beyond a very small quantity of blood. I have myself observed this on two separate occasions.

Oxalic acid appears to be manufactured even in the human body, for whenever the metamorphosis of some of the animal products is interrupted a deposit of oxalates makes its appearance in the urine.

It is now generally admitted as a recognised fact that urea is the last product of the retrograde metamorphosis of the nitrogenised tissues, and also that it is in the form of urea that the greater part of the albuminoid group of foods is excreted from the system. Uric acid, on the other hand, is supposed to be one of the intermediate products of this metamorphosis. For three reasons :—

1st. Because by the action of permanganate of potash on albuminous substances uric acid may be artificially obtained.

2ndly. Because by the further action of permanganate of potash uric acid is transformed into urea, and

3rdly. When uric acid is taken into the system it reappears in the urine in the form of urea; whereas when urea itself is taken it passes through the body unchanged.

We may now add that oxalic acid is also one of the intermediate products in the retrograde metamorphosis both of the tissues, and the albuminoid group of foods; for, as is well known, although uric acid, when perfectly oxidised, is completely changed into carbonic acid and urea, when anything intervenes to interrupt the oxidation process the products are carbonic acid, urea, and oxalic acid. The same transformation also occurs in the body, for whenever an excess of uric acid is taken internally, or injected into the blood, it appears in the urine partly in the form of urea and partly as oxalic acid. By perfect oxidation, on the other hand, both in and out of the body, uric acid is completed transformed into urea and carbonic acid. Hence we have no difficulty in comprehending why a deposit of oxalates is so frequent a concomitant of diseases of the respiratory organs.

There are several other animal substances besides uric acid that are convertible into oxalic acid. Thus, creatin, when acted on by the permanganate of potash in alkaline solutions, yields oxalic acid. Leucin, tyrosin, and guanin also yield oxalic acid, and so does lactic acid. The neutral fats, too, by lengthened heating with nitric acid, are, among other things, transformed into oxalic acid.

It would therefore seem that while the amount of oxalic acid present in the healthy animal body may be said to be derived directly from many vegetables and fruits, and indirectly from the whole three groups of food—albuminoid, fatty, and saccharine,—that met with in disease is not only the combined derivatives of all the different kinds of food, but also the direct product of the interrupted retrograde metamorphosis of the various animal substances above alluded to.

(To be continued.)

ORIGINAL COMMUNICATIONS.

MULTILOCULAR OVARIAN CYST —OVARIOTOMY—RECOVERY.

By GEORGE SCOTT, M.D.

E. R., AGED 23, a thin, delicate-looking person, of fair complexion. She first came under my care on September 24, 1863.

She then stated that she was married on May 28 previous, up to which time she had enjoyed very fair health, although always delicate-looking and of a slim figure. About six weeks after marriage she began to get large in the abdomen, but, fancying she was in the family-way, she at first paid no particular heed to this symptom. By the month of September, however, about three and a-half months after marriage, she found herself of such a size, and continuing to swell so rapidly that, thinking all was not right, she applied for Medical advice.

When I first saw her the abdomen was already very large, more so than would be that of a woman in the last month of pregnancy. It was equally distended all over, and smooth on the surface, except towards the left hypochondrium, where a tumour of considerable fleshy hardness, of irregularly-oblong shape, and of about the size of an orange, was felt one inch below the false ribs. This swelling was quite painless—it could not be moved out of position, and the abdominal wall could be freely moved over it. She could give no clear account as to when it first became perceptible, but it had certainly been there a month or six weeks before I saw her. The remaining part of the abdomen seemed to be distended only with fluid contained in one large sac, for the wave of succussion was felt passing uninterruptedly from one side of the belly to the other. The liver was pushed up high under the ribs in the right hypochondrium. The line of demarcation between the latter organ and the tumour was not very distinct, the dull, hepatic sound passing almost imperceptibly into the dull percussion sound of the tumour. She experienced a considerable amount of pain in the abdomen now and then, but her general health did not appear to have suffered much since the appearance of the swelling. She could walk about very well, notwithstanding the weight and size of the tumour. Her appetite was very good. Her bowels were remarkably confined—sometimes she had not a motion for a week together. She mentioned that she had all her lifetime been of costive habit. Some years ago her bowels were not moved for nine days, and nevertheless she continued to eat heartily the whole time.

The treatment adopted at this time was the administration of warm water enemata every day, with occasionally a castor-oil one to clear out the bowels, and steel and other tonics internally to keep up the strength. The enemata were continued every day for some weeks, and brought away for a considerable time an astonishing quantity of hard, offensive fæces.

She was ordered to drink porter, and to have a generous diet, with plenty of meat, etc.

I discontinued my attendance on November 3, as the patient seemed to become no worse, and to be tolerably fit for her household duties, being only a little inconvenienced by the great size and weight of the tumour.

At the end of December I was again called to see her. There was a marked change for the worse; the patient was thinner, and the size of the abdomen was considerably increased. She felt weaker, and suffered constantly a good deal of pain in the belly. The small fleshy tumour was now no longer seen or felt in the left hypochondrium. The enormously-enlarged abdomen was quite smooth over the whole surface, and seemed to be merely distended with fluid contained in one large sac.

The size and state of distension of the abdomen were now so great that it became an urgent necessity to tap her as a measure of relief. Accordingly, on January 2, 1864, I drew off about two and a-quarter gallons of thick, viscid, purulent-looking, shockingly stinking fluid. Immediately the trocar was withdrawn and the fluid began to flow, the stench was so powerful that I could scarcely remain near her. The fluid drawn off was very flocculent, so much so that there was some difficulty in getting it to pass through the tube, from the latter becoming almost at every instant stopped up. After as much fluid as could be got away was withdrawn, a large irregular-shaped tumour was seen and felt in the left iliac region—on one side stretching almost into the right iliac region, and, on the other, reaching upwards to the left hypochondrium. The tumour felt solid, and was of about the size of a man's head. This solid mass extended quite up to the part where, a month or two before, had been felt the small swelling, situated about an inch below the ribs on the left side. There could now, therefore, be no doubt that this latter must have been the upper end of the large ovarian tumour. The fluid drawn off, after standing some hours, deposited a very copious, flocculent sediment, leaving the supernatant fluid nearly transparent. The latter was highly albuminous; the former was composed almost entirely of pus cells.

The patient seemed to be much relieved by the tapping, and in a few days was able to go about her usual avocations again. She, however, was not so much reduced in size as one would have imagined she would have been by the withdrawal of so much fluid.

The fluid slowly re-accumulated in the sac, and by March 15 she was of such a size, and the abdomen was again so tightly distended, that it was necessary once more to resort to the expedient of tapping. At this time rather less than two gallons of a perfectly bland, viscid, greenish-white, purulent-

looking fluid were drawn off. There was not the slightest offensive odour in this last fluid.

This second tapping seemed to exhaust the patient more than the first one, and, moreover, the fluid began to re-accumulate in the sac more quickly than before. Hence, not long after the second tapping, the patient was again of as large a size, and the abdomen was as tightly distended as before the second withdrawal of fluid. She suffered also great and almost constant pain in the abdomen, apparently from the enormous distension of the abdominal walls which the tumour caused.

It was now that the propriety of ovariotomy began to be seriously discussed.

Her health was evidently breaking down very fast—she was getting thinner and weaker every day,—and the expedient of tapping was certain to be required at shorter and shorter intervals each time it was resorted to as a mere measure of temporary relief. To draw off so much fluid so frequently from the system was a most exhausting process. Moreover, she was leading a life of constant misery, suffering always more or less severe pain in the abdomen. If nothing were done beyond using palliative measures, it was evident that her life could not be prolonged many months, and those would be months of continual and severe suffering. Under these circumstances, therefore, it was pointed out to her that the operation of removing the tumour afforded her a chance of complete recovery to perfect health, although, of course, at the imminent risk of her sinking from the effects of the operation itself within a few days or even hours of its performance.

It was put to herself to decide whether she would remain as she was, using only palliative measures for the relief of urgent symptoms, with the certainty of dying a painful death within a few months at farthest, or whether she would brave the danger of ovariotomy, which afforded her a chance of complete recovery.

She made no difficulty in choosing to run the risk of the operation, observing that she would rather die than continue to suffer the misery she was then enduring. By means of the uterine sound it was ascertained that there were no extensive adhesions of the tumour to the uterus, as the latter was pretty freely moveable all round. It was very much anteverted, being evidently pushed downwards and forwards by the mass of enlarged ovary above it.

On April 27 last, at 3 p.m. I proceeded to perform the operation. I was kindly assisted by Professor Aitken, of the Army Medical School, Mr. Mott, Mr. Norcott, Mr. J. Reeve Shorto, who administered chloroform, Mr. Ware, and several other gentlemen. When the patient was well under the influence of chloroform I made an incision in the middle line about four inches in length, beginning just below the umbilicus, through the whole thickness of the wall of the abdomen down to the outer surface of the tumour. I then plunged a very large trocar into the large cyst and drew off fully two gallons of thick, viscid, perfectly bland, purulent-looking fluid. Thus having reduced very considerably the size of the tumour, I enlarged the wound in the abdominal wall downwards to the extent of about six or seven inches altogether, and then passed my hand between the tumour and the wall of the abdomen, or rather endeavoured to do so. I found here the adhesions of the tumour so very strong that it was some time, and not without using very considerable force, before I was able to insinuate my hand between the tumour and the abdominal wall so as to commence separating the former from its adhesions. After separating the anterior part of the enlarged ovary, I proceeded to tear away the adhesions from the sides of the same, and then from the posterior part. I was prepared to have to separate a certain amount of connexions to the surrounding parts, but I certainly did not anticipate such firm bands of adhesion and such difficulty in separating them as I actually met with. The whole surface of the tumour was strongly adherent to the surrounding parts, and it was only by using really great force and tearing violently that I succeeded in separating the tumour sufficiently to draw it out of the abdominal cavity. This was, however, done eventually, and the tumour held up bodily over the opening in the abdomen. A loop of the small intestine was then seen to be adherent to the tumour close to its root. This was torn away by the hand without difficulty and the whole mass left attached to the body only by the thin, fibrous pedicle. The clamp was now applied around the pedicle as closely as possible to the tumour, and the latter cut away just above the clamp. The pedicle was sufficiently long to allow the clamp, when drawn out as far as possible without dragging at the parts to which it was attached, to lie outside the wound of the abdomen.

The tumour was of large size. Its weight when removed was 11½ lbs. Fully two gallons of fluid were drawn off before the removal of the more solid part, so that the weight of the whole structure when entire and in the body of the patient must have been upwards of 30 lbs. It was multilocular, being made up entirely of larger and smaller cysts, varying in size from that of a pea to that of the large sac containing fully two gallons of fluid. The contents of the cysts varied very much, being in one sac serous, in another viscid and glutinous, in another purulent-looking, in another very flocculent, and so on. Some cysts of considerable size were growing, as it were, on the outside of the wall of the very large cyst. Several of these smaller sacs, having very thin walls, were ruptured during the operation from the great force required to accomplish the separation of the surrounding adhesions. The contents of these sacs sometimes serous, sometimes purulent, sometimes glutinous, thus escaped in considerable quantity into the cavity of the peritoneum. This matter, however, being perfectly bland, was not likely to set up much irritation in the peritoneal cavity. As much as possible of it, and of the small quantity of blood necessarily effused into the peritoneum during the operation was sponged out, and the wound was then closed by means of eight hare-lip needles. A pledget of lint was put over the wound, and a broad bandage round the body so as to cover all, and the patient put to bed. The operation took altogether nearly an hour in its performance; scarcely any hæmorrhage occurred, and not a single vessel required to be tied.

The patient vomited a little after recovering from the effects of the chloroform. Some raw brandy was then given. At bedtime she was ordered a draught containing half a drachm of sol. mur. morphiæ, and a suppository of two grains of extr. opii. was administered. Ice and iced drinks were allowed her freely to allay the thirst.; enemata composed of about two ounces of beef-tea with half an ounce of brandy were ordered to be given every two hours during the night.

April 28, 11 a.m.—Feels tolerably well; says she is suffering no pain; slept a little during the night; vomited at seven this morning, but not since. Pulse 128. Ordered to swallow small pieces of ice every now and then to relieve the thirst and vomiting. A little beef-tea was given several times during the night, but it was rejected again immediately. After the first night, therefore, for about a week after the operation, nothing but cold drink such as iced-water, toast-and-water, orange-juice and water, etc., was given by the mouth. The patient was kept alive by the beef-tea and brandy enemata continued every two or three hours during the day and most of the night. These were generally well retained. She had a considerable amount of vomiting during the first four days after the operation, but the vomiting seemed to do her good; she always felt relieved by it; there was never much straining with it. 2 p.m.—Pulse 120; a little vomiting since 11 a.m.; feels comfortable. Rep. hâc nocte suppositorium extr. opii et haustus sol. mur. morph.

29th, 12½ noon.—Pulse 112. 7·45 evening.—Pulse 112; vomited about a quart of bilious-looking fluid at 5 p.m.; says that she suffers no pain; bowels moved a little after 5 this afternoon, soon after a beef-tea enema. I dressed the wound to-day; it is looking well; clamp causes her no inconvenience. There is very little tympanitis. Rep. hâc nocte suppositorium et haustus sol. mur. morph.

30th, 9·30 a.m.—Pulse 100; vomited twice since I saw her last evening at 8·30; bowels moved at 1 a.m. The morphia draught and the opium suppository were given every night, and sometimes during the day if she felt in pain, for at least a week after the operation. Wound was dressed every day. 4·45 p.m.—Pulse 100. 9·15 p.m.—Pulse 95; vomited twice since last visit; beef-tea enema passed once; feels quite comfortable; is in no pain.

May 1.—10 a.m.; pulse 92; has not vomited since 1 a.m. 9 p.m.—Pulse 94; no more vomiting.

2nd., 9·45 a.m.—Pulse 90. Vomited about a pint of bilious-looking fluid at 3 a.m. 3·30 p.m.—Pulse 88. 9 p.m.—Pulse 89.

3rd, 10 a.m.—Pulse 92. Vomited once last night at 10·20. Ate an egg this morning. 8 p.m.—Pulse 98. No more vomiting. Begins to feel a little appetite.

4th.—Doing well.

5th, 2·45 p.m.—Pulse 95.

6th, 11 a.m.—Pulse 100. Appetite improving. Sleeps well at night. Some heat and sweating of abdomen yesterday afternoon. Clamp came away to-day. Wound looks well.

7th, 10 a.m.—Suffered from headache, felt uncomfortable all night, and did not sleep much. Troubled with flatulence. Had a castor oil enema at about seven this morning, which brought away some lumps of hardened fæces. She has been more comfortable in the bowels ever since the injection. 9 p.m.—Better. Had another castor oil enema at half-past twelve to-day, which brought away more lumps of hardened fæces. Ate two eggs and some roast fowl to-day.

8th, 8·15 a.m.—Better. Slept well. Pulse 90. Feels weak, but appetite is good. To have a wineglassful and a-half of sherry during the day.

9th, 11·15 a.m.—Pulse 106. Feels weak. 8 p.m.—℞. calomelanos, gr. v.; pulv. jalapæ, gr. viii.; M. Pt. pulvis statim sumendus.

10th.—Better. Vomited about an hour after taking the powder last evening. At one this morning, being restless and uneasy, she had a draught containing ♏ xxv. of sol. mur. morphiæ, which made her sleep pretty well. Pulse 98 this morning at 9·10.

12th.—Doing well. Pulse 84. Bowels are constipated, but act tolerably well with gruel or warm water enemata.

13th, 11 a.m.—Pulse 80.

14th.—Doing well. Slept well last night. She has an enema of gruel every day, which continues to bring away large quantities of fæces. The wound looks very well. It is healing up fast at the upper end. At the lower end, where the clamp was, there is a considerable depression, which, however, is granulating satisfactorily. The patient is very much emaciated, much more so even than at the time of the operation. She is also extremely weak, but takes plenty of nourishment.

From this time she improved rapidly. The wound was quite healed up, except a small portion at the lower end where the clamp had been, about five weeks after the operation.

About the latter end of May I first perceived a diffused swelling in the left iliac region. It was scarcely at all tender on pressure: the skin over it was of perfectly normal appearance: it had an elastic feel. Firm pressure continued for a little time caused the tumour to become smaller, and sometimes the diminution in size was accompanied by a slight gurgling sound. I was somewhat at a loss to think what this could be, when one morning, about a fortnight after I had first perceived it, I was summoned hurriedly to the patient, and found on arriving that the cause of alarm was her having passed by the urine a considerable quantity of dreadfully offensive matter. The stench was so great that it quite filled the house. The swelling in the left iliac region was now seen to have been caused by this collection of offensive matter, as the discharge of the latter was accompanied by the entire disappearance of the tumour. A little matter, which became less and less offensive, continued to come away by the urine for a few days after the first discharge, and then the water became again clear and of healthy appearance. She was much relieved by this matter coming away, and soon afterwards was able to walk about pretty well.

July 6.—Catamenia appeared to-day for the first time since the operation. A very small part of the lower end of the wound, where the clamp was, is merely covered with a scab. At this part there is some slight bleeding.

12th.—The catamenia lasted four days; the discharge was but scanty. When the latter disappeared the bleeding from the lower end of the wound ceased also. Her health is now tolerably good, although she is certainly still very weak. She is improving in flesh, but slowly.

On the same day as the last report was written—viz., on July 12—she went for change of air to her native place in Sussex, where she remained for five weeks. When I saw her on her return she looked much better, and had certainly improved in flesh; but she walked lame, owing to the presence of a large fluctuating swelling in the left groin, which first made its appearance about a fortnight before, when she was still in Sussex. It was in appearance like a large bubo; the skin was red over the greater part of it; there was a distinct feeling of fluctuation, but on firm and continued pressure the swelling became smaller, and the diminution in size was accompanied by a slight gurgling sound, exactly like when the swelling she had about two months previously was pressed. The latter was situated in the left iliac region; this present tumour is in the left groin lower down than the other. There has been for the last few days, and still is, a little offensively smelling matter coming away in the urine.

The bubo seeming ready to break, and causing her a good deal of uneasiness, I opened it on August 27, and there escaped a good deal of foul air and only a little offensive, thick matter. A poultice was ordered to the part, and for the first few days a great deal of fœtid pus came away by the opening in the groin and some little by the urine.

August 30.—Catamenia appeared again to-day. Less matter seems to be coming away from the wound in the groin every day. The discharge is gradually assuming the appearance of laudable pus.

September 12.—A large quantity of matter came away in the urine to-day. The last menstrual discharge only lasted two days.

15th.—Catamenia appeared again this morning.

17th.—Menstrual discharge is now as profuse as it used to be in her usual health before the tumour appeared.

20th.—To-day the catamenia disappeared, having thus lasted five days. Wound in groin looks very well. It discharges but little matter, and the opening seems to be granulating well up from the bottom. Hardly any matter comes away in the urine now.

October 1.—She is improving rapidly in appearance, is gaining flesh quickly, and is able to walk about and to attend to her household duties almost as well as before her marriage. The wound in groin is still open, but it discharges but very little matter. Urine quite clear.

November 4.—The wound in groin still discharges a little, but nothing of any consequence. Patient is much stouter since last report. Indeed, she has now the appearance of blooming health. She is able to walk three or four miles a day without fatigue.

Southampton.

ON

THE TREATMENT OF MALARIOUS FEVER.

By E. HARE,

Deputy-Inspector-General of Hospitals, Bengal.

(Continued from page 512.)

I will give one other case, showing the results of heroic unflinching depletory treatment in malarious fever:—

"H. Edwards(a), admitted August 23, having been treated since the 16th for remittent fever. He had been bled, leeched, cupped, blistered, and had taken calomel and antimony. When admitted, he had a weak, fluttering pulse of 130, irregular in its beat. Skin cool and moist. He was restless, and constantly sighing. His bowels were irritable. On the 25th the fever assumed the typhoid character, sordes appeared on the teeth, and he died on the 26th."

But it is useless filling my pages with such cases, with which all the Medical works of this period abound, and which I hope now have ceased for ever. The theory which induced Dr. Twining to practise his excessive bleeding was, he tells us himself, to carry out in remittent fevers Mackintosh's plan of bleeding in the cold stage of ague, in order to catch the paroxysm just as it was coming on, and break it. That bleeding has this effect there can be no doubt; a few ounces of blood drawn from the arm just as the shivering of the cold stage commences has a most remarkable effect in breaking the following hot stage; and if the remedy, and the loss of blood required to be repeated for each paroxysm, were not worse than the disease, bleeding in the cold stage of ague must be considered a valuable improvement. Twining adopted the idea, which was new in his time, and generalised it by applying the same method to check the paroxysms in remittent fever. He says:—"The recent practice of bleeding in intermittents, as recommended by Dr. Mackintosh, not only accords with the acknowledged pathology of that class of fevers, but seems to bring our system of therapeutics as applied to them within the limits of those established principles adapted to the treatment of other fevers;" and the Profession is indebted to Dr. Twining for pointing out, in following out this theory, the exact time in which bleeding in remittents has the best effect. Before his book, the time for bleeding had been left very vague, but Twining showed that to bleed with best effect it must be done, not when the paroxysm is at its height, when it would seem to be most peremptorily called for, but just when the paroxysm is commencing, and the earlier then the better, and particularly never to bleed when the paroxysm is on the turn, even

(a) *Transactions* of the Bombay Medical and Physical Society, Dr. Stowell's Report.

though the heat and violent symptoms be still very distressing. This was a very great improvement. Dr. Martin says, p. 349, "A young officer was seized with fever at 11 a.m. He was bled at 4, and he was dead at 7 p.m. The same operation practised at noon would probably have put an end to the fever;" and I have seen myself a strong young man bled when the skin was still hot, with headache and bounding pulse, yet when the accession was over—the turning-point—I saw that man sink from a moderate bleeding, and die exhausted in a few hours. He never rallied, for the exhaustion produced by the paroxysm, combined with the bleeding, destroyed him without remedy. In fact, it is not the principle itself which is wrong, but it is the necessity of repeating these bleedings as the accessions recur which make it so injurious. The fact itself is correct that we can break a paroxysm by bleeding in the cold congestive stage; but breaking one paroxysm does not prevent the recurrence of others, and the repetition of the bleeding is ruinous. Bleeding in the cold stage is helping nature to restore the equilibrium of the circulation, but in the hot stage it is hindering her just as she is striving for the mastery, as also bleeding in the commencement of the sweating stage, or remission, increases her exhaustion.

A remarkable case in proof of this effect of bleeding, in relieving the oppressed circulation, is given by Mr. Bland in the *Australian Medical Journal* for January, 1861. It describes a patient bitten by a deadly species of snake, the gold-coloured or yellow snake:—"The patient had an unsupportable feeling of oppression in the left side of the chest, perhaps the direct action of the poison on the heart, or, more probably, on the blood itself. Venesection to 16 ozs. produced the most immediate and beneficial result, not only in the removal of the oppression which evidently, but for this timely relief, must have been rapidly fatal, but with almost immediate and complete recovery of the patient." It is thus, no doubt, that a small bleeding will often restore the circulation in the collapse of cholera, in drowning, or any other form of asphyxia. It relieves the oppressed heart for the moment, and thus enables it to restore the circulation. It would do this also in many cases of remittent fever, but here the paroxysms recur, and the patient cannot bear the remedy again. I have often theoretically contemplated the possibility of advantage in bleeding a strong young man if I saw him just as the paroxysm was coming on, and I thought that I had not time to check it with quinine, but in practice I have never applied it. It is not necessary; quinine will do all you require, and the anæmic tendencies of malarious fever (as I will hereafter explain) are so great that, being unnecessary, bleeding is never justifiable. It is curious, however, to trace with what false theories real improvements are often introduced.

Dr. Twining says, "In the early stages of intermittent fevers, disorder of the digestive organs is co-existent with congestion of the brain, and attended in some cases with tolerably distinct evidences of inflammatory condition, either in the cerebral membranes or in the brain itself." Dr. Twining, therefore, really thought he was curing inflammations, in thus bleeding for ague.

Dr. Jas. Johnson's reply to this passage is characteristic:—"What kind of inflammation must that be which explodes, as it were, the moment the clock strikes a particular hour, and this for days and weeks together? What kind of inflammation is that which every second day terminates in profuse perspiration from head to foot, and yet is renewed after an interval of forty-eight hours with the symptoms as before, and so on? Do we see real and unequivocal inflammations pursue this course? Never."

Fortunately, however, for Dr. Twining's patients, quinine had just then been discovered, and he used it, though with extreme caution and in small doses, in the last stages of his fever cases. "In the remittent fevers of Bengal," he says, "the abstraction of blood at the commencement of the first and second exacerbation was invariably of benefit, and he gave, as soon as the violence of the pyrexia began to abate, sulphate of quinine in gr. ij. doses for four doses, and in the severe forms four grain doses the next morning, to be repeated at 8 a.m., for the purpose of anticipating and preventing the accession of another paroxysm. Again, he writes, "In remittent fevers we depend chiefly on active remedies, at the commencement of those forms of the disease which come on abruptly in plethoric persons, and are attended with signs of local inflammation and highly arterial action for life often depends on the management of a single paroxysm, and two or three large doses (gr. iv.) of the sulphate of quinine."

It was this introduction of quinine, however imperfect, which prevented Dr. Twining's practice from being a wholesale slaughter.(b) His work is full of cases showing how rapidly his patients recovered, if not too far depleted before he would allow them quinine.

I arrived in India very soon after Mr. Twining's death, and found the treatment of fever in India very much as Dr. Twining left it. Large depletion, however, was gradually becoming unpopular, and quinine, though with repeated cautions against using it before bleeding and purging had brought on a full remission, was very generally given in doses up to gr. iij. or v. three or four times a day; and even a dawning of the full truth appears in 1841 in the following passage from Dr. Martin's work, who was the most enlightened and successful of our Calcutta Practitioners at that time:—

P. 123—"Tropical fever, dysentery, and hepatitis are produced by the action of specific causes, and such diseases are nowhere remedied by blood-letting and purging merely, as in the instance of inflammation. Yet bleeding here, as in dysentery, is the standard remedy, subject to age, constitution, and length of service in India. It precedes all other management in order of time and in point of importance. I believe this to be the general view of it taken by the Practitioners of this city; and it is but common justice to say that the value of this most powerful of all means was first emphatically urged on the Indian Surgeon by Dr. James Johnson, and it is to him we owe that blood-letting has become a systematic part of our treatment. Subject only to the limitations already stated, early and copious bleeding, and practised at the very onset of the stage of reaction, is very generally necessary in the severer forms of Bengal remittent fever; then full doses of calomel, with sudorifics short of producing salivation, with saline purgatives in the intervals. If the disease does not now yield, but, on the contrary, if the secretions become of a watery nature or suppressed, and the paroxysms recur at shorter intervals, or with increased severity, leaving but imperfect remissions, then there is imminent danger, and inflammation or acute congestion of some important abdominal or other organ may be more than suspected. For this, in addition to topical bleeding, and cold to the head when the seat of disease, mercury in small repeated doses, with antimonials, must be given, so as mildly to affect the system. It is the only known means of saving the patient by anticipating the destruction of some organ essential to life. It here becomes, in the apt words of Dr. Robert Jackson, a remedy of necessity.

"Where the remissions, on the other hand, are well marked, quinine should be given in full(c) (gr. iij. to v.) doses, without waiting for everything. Some Practitioners recommend that, before this drug is used, we obtain previously a clean tongue, natural secretions, and all heat of skin or local affection. I believe this to be very dangerous practice. If we are to wait for everything, we shall often wait too long, or till it is too late. I have always administered quinine in the more favourable cases now stated, in disregard of certain local abdominal complications (those of the head should in general exclude it), believing that if I arrest the paroxysm I do greatly more towards the cure at large than quinine can possibly do harm to the local affection. In the more favourable cases last spoken of, it rarely happens that topical bleeding, purgatives, and mild mercurials, with quinine during the remissions, fail in conducting the patient to safety.

Again, p. 170, 1841, Dr. Martin says, "The treatment of ardent fever of the hot season in Bengal consists of active blood-letting to the extent of allaying the vascular disturbance, cold affusion and continued cold to the shaved head, brisk purging followed by calomel and antimony until the secretions are rendered healthy and relief obtained. In this fever as well as that of the cold season, the skin is harsh to the touch, compacted, hot, and dry, so as to admit of a more free use of antimonials and diaphoretics than we find requisite in the fever of the rains. Where remission takes place, provided the head be relieved, quinine must be had recourse to for the purpose of preventing recurrences."

But there were a large number of cases, and these the most fatal, where no remissions occurred, and where there were head symptoms: for these, therefore, there was no remedy but mercury, for quinine was excluded by wrong theories.

I have given these quotations the more fully because they represent the most enlightened practice of India of all the best Medical officers during my first years in India; and the

(b) Count Cavour, in Italy, seems to have fallen a victim to similar bleedings for fever.

(c) See Second Edition, 1861, p. 338.

same doctrines are still advocated by Dr. (now Sir Ranald) Martin in his last edition, 1861. They were indeed universal till 1850, with the exception of some Practitioners using calomel more freely, and quinine with more caution than Martin.

I arrived in India in July, 1839, and till May, 1843, was occupied in the Cabool campaign. I had the advantage there, however, of practice with H.M. 44th Regiment, whose Surgeon, my kind friend Dr. Harcourt, taught me the same principles of practice as Dr. Martin's. In 1843 I was sent to Segowlie, on the borders of the Nepal Terai, the most deadly in India, and there remained for four years. I was called to a distance on one occasion to see a Medical gentleman with cholera. He died, and left me a valuable Medical library, in which I found the now scarce works of Lind and Hunter. Their practice was new to me, and I read them with eagerness. I had seen enough of the standard practice to be dissatisfied with it, especially in some recent cases I had treated of the Terai fever. They all died. No remission took place; there were head symptoms, and I durst not give quinine. In fact, it was so utterly forbidden by all authorities that it never occurred to me to give it. I tried to salivate, but the fever was so active that my patients were dead before the mercury had time to affect them. It then struck me as remarkable, that since the discovery of quinine no one had tried it in the same way as Lind and Hunter had used bark, from the dread of its increasing congestion and inflammation, and a case quite hopeless under the common treatment soon offered itself to me, and I determined to try quinine.

I was sitting in my room one morning, when my servant came in haste to tell me that some natives had brought a European very sick from the Terai. I found a young lad of about 20, lying quite insensible on a native bed. The natives said that he was travelling on a pony in the Terai, had fallen off insensible in their village, and fearing he should die there and cause suspicion, they had brought him to the nearest Doctor. I immediately mixed ʒj. of quinine in some wine, and by giving him a teaspoonful at a time, made him swallow the whole of it. I repeated it every four hours three times that day. Early in the morning he was sensible. I gave him another dose and some arrowroot and milk. He took the same doses throughout this day, with some soup, and the next to my delight he was out of danger, having taken two and a-half drachms of quinine in forty-eight hours, and without much inconvenience. The poor lad was a deserter from the regiment at Gazeepore, and he had thus wandered in the deadly Terai till he nearly perished. He returned to his regiment quite well.

I soon had plenty of cases to try my new treatment, and among them the Resident at Nepaul, who foolishly passed through the Terai in the unhealthy season; together with a number of indigo planters in the district, whom I was called to attend for bad fevers.

Having thus accumulated sufficient evidence, in November, 1847, I published at Delhi a pamphlet styled "Hints on Fever and Dysentery," which I was soon gratified to find caused a great sensation. Dr. Ewart says:—"This pamphlet ('Hare's Hints') appears to have taken the Profession by surprise, and created a great sensation throughout the length and breadth of the Company's Indian possessions.(d) A strong proof of the startling novelty of the propositions therein advocated, at least among the general body of Practitioners in India at that time." Dr. Mackinnon, a very able Surgeon, and of large experience, in his work on "Tropical Disease," just then published (1848) says, p. 207:—"The manner of using quinine being here under consideration, I am reminded of having very lately perused a pamphlet by Mr. Assistant-Surgeon Hare, entitled 'Hints for an Improved Treatment of Remittent Fever and Dysentery.' Regarding fever (if the doctrine in that pamphlet be correct), the Profession in India, and I as one of it, have been very blind and unobservant. In fever we have been watching and in remittent fever with the feeling that life or death hung upon it, for the time when we could begin quinine. Now we are informed that waiting is in every point of view a waste of time, that quinine may be given safely in the highest climax of the fever; that it will prevent the congestions and complications which end in death."

Dr. Edlin's *Medical Journal* then took it up, and I wrote several articles for him. At last the sensation became so great that the Medical Board in Calcutta recommended Lord Dalhousie to let me try an experiment in the General Hospital. Lord Dalhousie sent for me, I explained to him my plans, and was sent to Calcutta. The arrangements for my experiment, as settled by the Medical Board, in correspondence with Lord Dalhousie, were, that one year should be given me for the trial, to comprise each season of the year. A ward in the Hospital was made over to me, and a staff of assistants, and all the fever and dysentery cases which presented themselves were sent to my ward without selection. I will omit, however, all further mention of my dysentery cases, because I propose writing on that subject hereafter.

It was on November 1, 1849, that my experiment commenced. In addition to my ward in the General non-military Hospital, I was ordered to do duty as an assistant under the Surgeon of H.M. 70th Regiment. This Regimental Hospital adjoined the General Hospital, and a ward was given me there also, and all the fever and dysentery cases from one wing of the Regiment were sent to me, and those of the other wing were treated by the Surgeon himself. As I was afterwards told, the Medical Board placed more confidence in this part of the experiment than the other, for they had a direct comparison of mortality with men of the same regiment, under the same rules and diet, the same place of residence, during the same year, and in all circumstances were the patients alike, except their mode of treatment. The Surgeon, too, had the daily supervision of my ward, while Sir James Thompson inspected the other, and every grain of medicine I prescribed was recorded in the Hospital books.

In one respect in the Regimental Hospital, I felt I was under considerable disadvantages, for the Surgeon had the upper storey, and I the lower, which any one who has treated fever patients in swampy Calcutta will confess to be a great disadvantage; and besides, I found that the Surgeon, inspecting as he did the advantage of it in my patients, made a far more early and liberal use of quinine than had ever before been his custom—though he could not suddenly change his practice, and give quinine in the wholesale manner I did. However, the result at the end of the year was, that the Surgeon treated 279 cases of fever with 4 deaths, while my result was 292 cases and 2 deaths, or considerably less than half his mortality,—his result being 1 death in every 69¾ cases, and mine 1 death in every 146 cases. (See Table No. 1.)

It will be observed, too, that the Surgeon's mortality, owing to his freer use of quinine, is very much smaller than the previous average for fever in the same Regimental Hospital for twenty previous years, which had always averaged for fever 1 death in every 30 cases. (See Table No. 4.) My result in the ward of the General Hospital was compared with this more just standard, and resulted in 1 death in 129 fever cases, the average for twenty previous years—viz., from 1830 to 1849, the date of my experiments, having been (see Tables 2 and 3) 1 death in 11¼ fever cases.

After the close of the experiment I was appointed to the charge of a European regiment, and went with it on service during the war in Burmah, and afterwards through all the exposure in the mutiny and the siege of Delhi, and the result has been, during nine years, under a decidedly improved system of administering quinine, a further reduction of the mortality in fever from 6982 cases treated (see Table No. 5) of 1 death in every 211¼ treated, which is less than half per cent., or, in other words, the mortality by the dreaded Bengal fever is almost reduced to nothing.

Of the tables from which these figures are deduced, and which are given in the Appendix, some are taken from the Medical Board's report to Government 1849-50, of which a copy was supplied to every Medical officer in the Indian Army; and the remainder from the regimental records in the office of the principal Inspector-General, kindly supplied to me by his Secretary, Dr. H. Macpherson. The results, also, of this experiment must be viewed in a very different light from those of private practice, for the experiment was performed in the public wards of two large Hospitals, under the direct superintendence of Dr. Nicholson, Surgeon of the General Hospital; Sir James Thompson, under whose particular superintendence the experiment was placed, and the Surgeon of H.M.'s 70th. The wards also were constantly visited by other Medical officers in Calcutta, who were much interested in the result of my trial. But lest one year might be considered too short a trial, I have continued the experiment through nine more years with a European regiment, in the most unhealthy parts of India. I have, in fact, been in persistent trial of my treatment for fever since 1843, viz., for twenty years.

(To be continued.)

(d) "Indian Annals," No. 14, p. 367.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

THE EXPLOSION AT ERITH.

THE following report, continued from page 384, is partly supplied to us by Mr. Churton, of Erith:—

October 11.—William Y., into whose skull a large splinter was driven, about an inch above and behind the right ear, is in an unfavourable state. Although never insensible to a question, he rambles a good deal, and is exceedingly irritable and cross. Naturally he is a very good-tempered boy. He is feverish. The wound gapes, and much pus escapes from it, chiefly, perhaps, from the track of the smaller splinter which ran beneath the scalp. A probe detects bare bone and a fissure therein at the hinder part of the wound, and a soft pulpy swelling (apparently brain) is felt under the skin, and projects a little into the wound, seeming to grow from the fissure. At present he is merely kept quiet, takes an aperient powder now and then, and has slop diet. Water dressings are used for the wound.

12th.—Pulse 130; skin hot; rambling and irritable as usual, though rather less so than yesterday; wound as before; rests tolerably well; bowels scarcely open; ordered to have an aperient powder.

On the 13th the tumour mentioned above was clearly seen to be a hernia of the brain. Pads of lint saturated with lime-water were applied with slight pressure, as the discharge of pus had ceased. The right pupil was dilated widely, and he squinted; but on the two following days he did not squint, except (so said his nurse) at times. The tumour began to look a little charred. The edges of the wound were clean and healthy.

On the 16th he looked pallid and very ill. Pulse 130, soft. The right pupil was widely dilated. He was sensible, but talked and sang in a rambling way, as usual. While the right side of his head was being shaved a quantity of fetid curdy pus welled up from the fissure in the skull. This happened also two or three times afterwards when he was lying quite still on his left side. By the next day (October 17) "half a tumblerful" of similar pus had flowed in gushes. In the next night he had a rigor; there was very little discharge.

On the two following days (18th and 19th) he had several rigors, and a considerable quantity of clear watery fluid escaped through the fissure, but very little, if any, pus. He continued sensible, however, and rambled less, although on the 19th his pulse was 180, and his tongue was covered with a thick brownish fur.

On the 20th, as the pulse was still at 180 and soft, and as the rigors seemed to return with some regularity, he was ordered to take a grain of carbonate of ammonia with five minims of the tincture of bark every four hours. The bowels required an aperient powder occasionally.

The pulse became lower on the 21st and 22nd, but on the 23rd the report runs thus:—Pulse 180; no squint; pupils dilated, the right much more so than the left. The floor of the wound, which gapes rather widely, is bone, bared of periosteum, in which the fissure and the remains of the hernia, now nearly dried up, are seen. There is no flow of pus from the fissure. The edges of the wound are clean.

On the following day (the 24th) he was taken, in much the same condition, to Guy's, as, Captain M'Killop's family being compelled to leave home, he could stay there no longer.

He was admitted under the care of Mr. Cock. Mr. Cock made an incision and opened an abscess. After the removal of the matter some clear fluid followed. The child appeared relieved, and went to sleep. It was clear, however, that the brain was seriously involved. The child died October 27.

Autopsy by Dr. Wilks.—There was a fracture at the back part of the head, on the right side; or, rather, an oval opening existed, through which the finger could be passed. There was no splitting of the bone around, and evidently the mischief had occurred from a circumscribed blow by a small object.

On removing the calvaria a hole was seen in the dura mater through which the brain was protruding. The dura mater was adherent all round, but on removal a general and acute arachnitis was seen to have occurred; the surface of the brain as well as the dura mater being covered with a layer of lymph and purulent matter. A space the size of a large walnut existed at the back part of the brain. This was the cavity of the abscess. A section showed that it reached the posterior corner of the right ventricle, and thus it seems the clear fluid which escaped after Mr. Cock's incision was ventricular. The ventricles now contained a little turbid fluid. The surface had upon it some purulent lymph, showing also that the abscess and ventricle had communicated. The arachnitis was universal, although somewhat less on the left side.

For the following we are indebted to Mr. Churton, of Erith. This patient is still under Mr. Churton's care:—

October 11.—John S., who had a fracture of the skull, with stripping of periosteum and depression, near the posterior border of the parietal bone, is going on pretty well. The wound, two and a-half inches in length, is granulating, and there is a free discharge of pus from beneath where the bone, about to exfoliate, is seen. No symptoms of compression have appeared; but he was very ill for three or four days in consequence of some rabbit-pie having been incautiously given to him on October 6. Shiverings, headache, nausea, and symptoms of depression followed. The pulse fell to 60; on the 9th it was 55; and on the 10th, 49. His tongue was very white; he was weak and weary. An aperient powder improved this condition of things; he took, also, a little wine.

October 12.—His pulse is 60; tongue cleaner, and he complains of nothing except a slight headache. He takes beef-tea, and occasionally wine. Water dressings are applied to the wound.

October 26.—He has been able to go out of doors the last three or four days. The wound, its edges having been slightly drawn together by plaster, is filled with granulations, and is rapidly contracting, but in the upper part of the granulations there are two points whence issues a little thick white pus; this discharge is, however, becoming gradually less. The pus comes from beneath the piece of scalp which originally formed the flap covering the bare and depressed bone, but which now seems to have become almost wholly adherent. He is perfectly well, except that his bowels are costive; he takes, therefore, a rhubarb pill occasionally.

November 16.—The wound in the scalp is now healed, except about an inch at the upper part, which, though granulating healthily, cannot close on account of a little dead bone which still remains to be separated at the margin of the piece originally depressed. No visible fragment of bone has come away at any time, and the discharge of thick pus has ceased. The scalp is everywhere perfectly adherent except immediately beneath the granulations, where a probe detects the bit of bare bone alluded to. In all other respects he is quite well.

CARCINOMA OF GLANDS OF NECK—LIGATURE OF COMMON CAROTID ARTERY—UNUSUAL CONDITION OF CEREBRAL VESSELS.

(Under the care of Mr. POLAND.)

THE following notes are by Mr. E. C. Roberts:—

J. C., aged 64, admitted July 7, 1864, under the care of Mr. Poland. He had for seven months suffered from a mass of malignant growth on the right side of the neck, supposed to be connected with the root of the tongue.

On admission, there was seen a large sloughing opening in the tumour, plugged with sponges. The manner of the patient was peculiar, his face somewhat distorted, and deglutition difficult. Mr. Poland having decided that the carotid should be tied at once in the case of hæmorrhage recurring, this was done on the 9th by the House-Surgeon, Mr. Reeby, the incision being made over the vessel in the lower part of its course. No immediate change followed the tightening of the ligature; but respiration became gradually more laboured, and on the next day the left arm and leg were paralysed, mouth much drawn to right side, and difficulty of deglutition increased. This condition altered but little till the evening of the 12th, when death took place.

Dr. Wilks observed at the inspection that the brain presented a most remarkable appearance, one side being of a dark red colour owing to the vessels being full of blood, the other being quite pale. Contrary to what might have been expected, the dark side was that on which the carotid had been tied. This extreme vascularity pervaded all parts of the right hemisphere—not only the surface, but also the interior. The whole of this portion was considerably softened, of much less consistence than the left, and the softening extended to the nerves.

The colour was due to the arterial vessels of one side being

plugged with coagula from the point of ligature upwards throughout the branches; and on examining the longitudinal sinus, fibrinous masses were found projecting into it from the veins of the right side. The sinuses themselves contained merely recent coagula.

Why the vessels should have presented this appearance more here than in other instances of ligature of carotid, does not seem very clear. The supply of blood had probably been lessened before the application of ligature, by reason of the pressure of the growth upon the carotid, and with this may be connected the extensive softening. Considering the advanced age of the patient, it is not improbable that the arteries were in an imperfect condition, and, therefore, failing properly to contract, did not in the usual manner expel all their blood; hence a portion remained, to which more would have flowed by means of the anastomosing arteries of circles of Willis. The heart's action, however, being feeble, there was not sufficient power to maintain the circulation throughout the right half of brain; hence the coagulation, both in arteries and veins, into which last blood from the sinus also may have regurgitated.

ST. THOMAS'S HOSPITAL.

OBSTRUCTION BY CLOT OF RIGHT MIDDLE CEREBRAL ARTERY, UNATTENDED WITH HEART DISEASE, AND IN A PATIENT WHO HAD BEEN SUFFERING FROM SECONDARY SYPHILIS—CLINICAL REMARKS.

(Under the care of Dr. BRISTOWE.)

J. C., aged 27, a carpenter, was admitted, under care, on May 2, 1863. It appears that on the morning of April 28 he went as usual, and seemingly in good health, to his work; that about 9 a.m. he was suddenly attacked with pain in the head and giddiness, without loss of consciousness; and that at the same time he lost the use of his right arm and of both legs. It was stated that he had been a temperate and healthy man, that he had never before had anything like a fit, or rheumatism, or, in fact, any serious illness, except syphilis. This latter disease he had contracted four years before, and had had secondary eruptions at intervals since.

On admission he was found to be perfectly sensible, but his speech was imperfect. He had in great measure recovered the use of his legs, but his arm continued powerless. Sensation was everywhere perfect. His pupils acted naturally, and his eyesight and hearing were unimpaired. His face was slightly drawn to the left, and he protruded his tongue with a slight inclination to the right. He complained only of some giddiness and of some aching in the shoulders. His excretions were passed naturally, but the bowels were inclined to be constipated. His tongue was white and moist; his appetite poor. The heart-sounds were natural. He remained for about ten days in much the same state. It was then noticed, for three or four days, that he was very drowsy. Still no material change in his condition occurred until the morning of the 16th, just after the visit. At that time he was complaining somewhat of pain in the head, and became suddenly insensible, and continued almost perfectly insensible up to the morning of the 18th inst., when Dr. Bristowe saw him again. At that visit, when loudly addressed, he partially opened his left eye, but took no further notice. There was complete ptosis of the right eyelid, which was said to have existed only since the morning. The pupils acted. The left arm lay perfectly still, but all the other extremities were slightly convulsed at times. His evacuations were all passed unconsciously. The pulse was 80.

He survived ten days, during which time his condition varied but little. During the first half of this period he had intervals of imperfect consciousness, during which he would open his eyes when spoken to, and endeavour even to put out his tongue; but afterwards he became wholly comatose. At first the pupils (though dilated) acted equally to light; latterly they acted a little irregularly, and the day before his death their axes were divergent. The paralysis continued throughout; but towards the close of life all convulsions ceased. The evacuations continued to be passed in bed, but the bowels were only relieved after the use of injections. The pulse gradually increased in frequency, until it attained, the day before death, a maximum of 140. During the last day or two of his life the breathing also became hurried, but unattended with cough, and his face became shrunken and ghastly. He died on the morning of May 28.

Post-mortem Examination.—There was the scar of an old wound on the scalp. The internal surface of the cranium was healthy. The arachnoid membrane was somewhat opaque, and there was some turbid fluid in the arachnoid cavity. The pia mater was somewhat congested. The arteries at the base of the brain were healthy, with the exception that the right middle cerebral artery was obstructed by a firm, partly decolorised clot, which completely filled it, just before its division into branches. The middle lobe of the right cerebral hemisphere was softened, and the grey matter of some of its convolutions congested. The grey matter of the two central convolutions was paler than usual, and somewhat yellowish—the boundary between the grey and white matter being ill-defined. The grey matter of this portion of the brain presented under the microscope numerous compound granule cells; and similar cells, but in smaller numbers, were discovered in the adjoining white substance. The left corpus striatum contained a cavity about one-third of an inch in diameter. This had vascular walls, and contained some turbid fluid, which contained numerous large compound granule cells, with some nerve-cells and blood-corpuscles. The rest of the brain was healthy. The lower lobes of both lungs were congested and in a state of lobular pneumonia. The heart was in every respect healthy, the valves being entirely free from vegetations. The right ventricle contained a large quantity of yellow fibrinous clot, extending into the pulmonary artery. The capsule of the liver was thickened in patches, but the organ itself, beyond being a little fatty here and there, was healthy. The spleen was somewhat large, and its capsule was thickened. The kidneys were rather small, and presented on the surface a few irregular depressions. The remaining viscera were in a healthy condition.

Remarks by Dr. Bristowe.—The whole case is interesting in several points of view. First, there was obstruction by clot of one of the middle cerebral arteries, without heart disease or, so far as could be detected, any source of embolism. The clot had doubtless formed in the situation in which it was discovered. Second, the patient had suffered until within a short time of his death from secondary syphilis, a condition which I have shown on a former occasion (*Path. Trans.*, vol. x., p. 44) to be a not improbable cause of the obstruction by clot of cerebral arteries. In comparing the history of the above case with the appearance noted on dissection, there can be little doubt, I think, that obstruction of the right middle cerebral artery had produced the sudden change of symptoms which took place on May 16, and led to the disorganisation on the right side of the middle lobe of the cerebrum. Whether, however, his first attack of paralysis (which evidently had some connection with the cavity formed in the left corpus striatum) had been the result of arterial obstruction on the left side, or of an ordinary apoplectic attack must remain doubtful. Against the first view must be placed the fact that no obstruction of the corresponding middle cerebral artery was detected; against the second, the fact that no remains of blood, no orange-tinted discoloration of the parieties of the cavity, and no hæmatoid crystals were recognised. It is possible that obstruction of some of the minute terminal branches of the artery may have been, in this case, the cause of obstruction.

I have not thought it necessary to give the details of treatment in the above case. It is sufficient to say that the treatment was of an ordinary character, and that it was wholly unattended with beneficial results.

KING'S COLLEGE HOSPITAL.

A CONTRACTED KNEE-JOINT TREATED BY EXTENSION.

(Under the care of Mr. SPENCER WATSON.)

J. G., 15 years of age, a tolerably healthy-looking lad, has suffered for the last eight years from the effects of a fall from a cart, in which the left knee was severely injured. He has been in the Orthopædic and Guy's Hospitals, where he has had various instruments applied. The condition of the limb is as follows:—The leg is bent on the thigh to an angle of about 60° or 70°, and the foot is everted. The lower end of the femur is pushed considerably forwards, and the patella can be felt to be anchylosed to the external condyle. The muscles of the limb are much wasted. He has not been able to put his foot to the ground since the accident, and goes about on crutches; but there is no pain nor tenderness in the joint, nor anything to indicate any active disease.

He was admitted into the Hospital on May 28, 1864, when, chloroform having been administered, Mr. Watson forcibly extended the leg. Several sharp snaps were heard, and the limb came into a very fair position, still, however, having a slight dislocation of the tibia backwards and outwards. A straight splint was adapted at the back of the joint, and cold lotions were ordered to be kept constantly applied.

For some days after the operation there was some pain and effusion into the joint.

June 1.—A Macintyre's splint applied to the limb, slightly bent at the joint. The screw to be turned each day, so as to get the limb gradually extended.

10th.—The leg is now well extended on the thigh. A thick leather splint moulded to the joint, reaching half-way up the thigh and two-thirds down the leg.

Since the above date, he has worn the leather splint almost constantly. A pad has been adapted to it, with straps and buckles, so as to press firmly against the lower end of the femur in front, and the leather splint has been padded opposite the head of the tibia behind. This apparatus has had the effect of bringing the thigh and leg into a very satisfactory position.

November 11.—He has been in the habit of walking about without crutches for some months past, and he occasionally dispenses with his splint also. The leg is extended to the full extent, and seems immoveable, as if from fibrous anchylosis.

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Medical Times and Gazette.

SATURDAY, NOVEMBER 19.

MODERN SYPHILOGRAPHY.—No. II.

Several Continental syphilographers have laboriously gone through the records of the earlier history of venereal diseases, and it has turned out that our forefathers were not so foolish, nor we so wise as we had vainly imagined. It can be clearly shown that all the diseases which take their rise in impure sexual intercourse had not the same or a like period of origin, nor were they so entirely confounded together as we had believed. We now know that gonorrhœa may, and always has arisen, wherever impure and illicit sexual intercourse existed, and that its cause may be a morbid potency of the ordinary secretions rather than a specific virus. All moderns agree in saying that a purulent urethritis may be obtained from a virtuous woman, but the difficulty remains—Why it should be so rare among married men? We are in possession of no observed facts as to how the vaginal secretions are modified by prostitution; but we do possess some collateral facts which seems to show that these may acquire the characters and properties of active contagion. It is now known that pus applied to the conjunctiva is capable of exciting an ophthalmia, and that this ophthalmia may vary in intensity according to the source and character of the pus used. We know, moreover, that during the prevalence of catarrhal ophthalmia the conjunctival secretions may acquire new and active properties, and the disease be contagious, severe, and difficult of eradication in a school, regiment, or larger community. We are warranted, therefore, in the hypothesis, that the vaginal fluids may acquire new properties under the gregarious habits and life of the prostitute.(a)

While the London schools bowed the neck to Hunter, and gave in their adhesion to the doctrine of the identity of the cause of gonorrhœa and all venereal ulcers, we find the Edinburgh school maintaining that gonorrhœa and syphilis were not identical. Suspicions on this point had long existed in the minds of many writers. Practitioners, observing how seldom gonorrhœa was followed by secondary syphilis, felt compunctuous in subjecting patients to salivation. Daniel Turner, 1730, said he never gave mercury in clap, except in deference to custom. Mercury was denounced in the middle of the eighteenth century as being unnecessary in *any* venereal disease, because, whilst *all* venereal diseases were confounded together, it could be shown to be unnecessary in gonorrhœa. Edinburgh has the honour of proclaiming the essential distinction between gonorrhœa and syphilis. Dr. F. Balfour, in a Medical thesis, published 1776, first denied the identity. B. Bell was a staunch anti-Hunterian. This shows the utility of *strong* provincial schools to check and counterpoise the influence of a servile following of the teaching of the metropolis, when popular metropolitan teachers fall into grievous errors, as they sometimes will.

Even in Sir A. Cooper's time we find him lamenting that some Practitioners believed in the syphilitic nature of gonorrhœa, and salivated their patients accordingly. Judd did a great deal towards showing the spontaneous origin of gonorrhœa, and by calling it *urethritis* gave emphatic testimony to its nature. But it was in 1838 that a new era arose in the history of syphilis, with the publication of Ricord's book. By his experimental illustrations we first learnt to demonstrate the distinctions between the agents producing gonorrhous and venereal ulcers. Inoculation proved the test to which we could bring these diseases, and by it the doctrine of the identity of gonorrhœa and syphilis was, then and for always, done away with amongst educated men, though it lingers amongst the vulgar and the quacks.

Having thus traced the gradual disentanglement of gonorrhœa from other venereal diseases, let us turn to the differentiation of syphilis from the local sore. *True syphilis*, as we have said, was unknown until after 1494, although the local contagious ulcer of the genitals, with suppurating buboes, had been known from remote times. The new disease was distinguished by the term "caries gallica."

In the works of Marcellus Cumanus, Alexander Benedictus, John de Vigo, and other authors who wrote within thirty years after the appearance of syphilis, these two affections were described in separate chapters with many of the distinguishing features of the present day; and none of the writers of this early period, when speaking of the French disease, make any allusion to suppurating buboes, which are described apart, and referred to the "caries non gallica," known in ancient times.

Fallopius, in 1455, recognised different varieties of venereal sores; and in 1564 Fracantianus, and Nicholas de Blegny, in 1673, both speak of the distinguishing characters of the infecting sore, and mention the induration. The characters of the indurated sore and of its constitutionally infecting nature were also clearly indicated by them. Hunter, by the way, has not the claim of first describing the sore called by his name, as it had been done very accurately a century before by Ambrose Paré. But with the sixteenth century we enter upon an era of confusion, as it has well been called by Bumstead, in which all venereal diseases were lumped together, and which continued, with here and there an exception, down to our own day.

If an English regiment had been sent to join the army of Charles VIII. in Italy in 1494-5, there would have appeared among the men of that regiment a perfectly new disease,

(a) As we speak freely of Hunter's defects, we may say, on the other hand, there is no better example of his powers of accurate observation than his description of the symptoms of an attack of gonorrhœa. It has never been surpassed, and rarely equalled by any other writer.

which, in its seat of origin and early symptoms, would have borne the characters of the venereal ulcers contracted at that date in Great Britain, but which would have differed from them most decisively in this—that an ulcer or sore was the precursor to constitutional symptoms of a new type and virulent character. Have we nothing at all parallel to this in our own day? Dr. Livingstone was struck with the fact in his travels, that syphilis (?), among the natives of the interior of Africa, was of the mildest and most transitory nature; but that when these people go into large European settlements, then the secondary symptoms are of the most virulent character. Is it not more reasonable to suppose that differences in the virus or differences in the nature of the disease were the cause of this, rather than any differences of life? The chances of becoming infected with *true* syphilis are increased a thousandfold in the European settlement.

It is interesting to notice the fact that some old writers—Borgaruzzi, for example—said that a good fat bubo preserves from constitutional pox. This seems to have been a foreshadowing of the facts which have since been made out with reference to the suppurating bubo. Nicholas Massa, in 1532, and Anthony Lecoq, in 1540, although they include the two forms in their descriptions, recognised that constitutional symptoms rarely followed suppurating buboes.

Now we come to Ricord, and his experiments in inoculation. He was not destined to disentangle completely the skein of difficulties which authors of previous ages had been so industriously and intricately weaving. (If there had been one form of venereal sore, and one only, as he thought, his experiments would have led to conclusive and permanent doctrines; but such was not the case.) So long as inoculation was deemed the test of the true syphilitic sore, and so long as it was held that syphilis was contagious in its primary manifestations only, so long were men treading in a limited circle, and following the footprints of a false kind of experience. The discovery that the soft local sore was alone inoculable on the same individual consigned, at once and for ever, a large mass of literature of the Ricord era to limbo.

Originally, Ricord maintained that a person could only have *syphilis* once; that the diathesis did not double itself in the same constitution. In 1853, Mr. Henry Lee showed that the infecting, or true syphilitic sore, in its origin, was attended with the adhesive form of inflammation, and, therefore, was an essentially different morbid process from the inoculable suppurating sore. In 1855, M. Clerc asserted the non-inoculability of the indurated chancre upon the patient himself, which was what might have been deduced from Ricord's original proposition. And, very close upon his heels, and without having seen M. Clerc's "Memoir," Mr. Henry Lee propounded the same doctrine, supporting it by the publication of the cases in which he had made this the subject of experiment. A little later (1858), Mr. Lee published, in continuation of his observations, the fact, that although the infecting sore was not ordinarily auto-inoculable, yet, that its secretions might acquire such active properties as to be capable of producing a modified effect when inoculated. He further showed, that neither ulceration nor suppuration were necessary parts of the primary affection, but that when these took place, whether from natural or artificial causes, then, that the pus was capable of being inoculated with a certain amount of result. To sum up his labours as a syphilographer, we may add that, in 1859, Mr. Lee published a paper in the *Medico-Chir. Trans.* on Secondary Syphilitic Inoculation, the truth of which he held in common with Rollet, Viennois, and others; and in 1861 he furnished a valuable summary of the then present state of our knowledge of syphilis, giving drawings of the different kinds of secretion afforded by the different forms of primary sore, and dwelling upon those puzzling cases of mixed chancre, the result of a two-fold inoculation at the same time. In much of this he was original, and in much he was only parallel with numerous Continental syphilographers who were pushing forward our information and knowledge of the disease.

THE WEEK.

H.R.H. THE PRINCESS LOUIS OF HESSE.

The *Court Circular* of November 12 announces that—

"Her Majesty has received the gratifying intelligence of the complete convalescence of her Royal Highness Princess Louis of Hesse. Dr. Priestley, who has been in attendance on her Royal Highness at Darmstadt, had the honour of an interview with the Queen on Friday to report the satisfactory condition of her Royal Highness and the infant Princess."

THE GEDNEY PUZZLE.

If a jury have found a true verdict, one of the oldest tricks in the world, one of those crimes which have furnished the favourite staple of playwrights and romancers in all ages, has been actually perpetrated in London in the nineteenth century. Westminster boys who have read or acted the *Andria* know all about the process. A woman is desirous of possessing the prestige of maternity, and pretends to go through the agonies of labour. "Obstetricem arcessitum ad eam, *et puerum ut adferret simul.*" Substitute a quack Doctor and his wife for Lesbia and Baechis, and the *personæ* of the old Greek comedy are complete. Whether as part of the plot, or as a *bona-fide* act on the part of the patient's husband, an eminent Physician was sent for to give the weight of his character and position in aid of the conspirators. Of course, we need scarcely say that when a respectable Practitioner is called in four or five days after a confinement, he takes the facts as they are told him, and as the patient is already nearly convalescent, never dreams of instituting a rigid examination to ascertain whether she was confined or not. Such cases are luckily rare, out of romances; but once warned, we think no one will fall into the snare again till the Gedney case is forgotten.

THE PENALTY FOR UNLAWFULLY ASSUMING THE TITLE OF "SURGEON."

Certes the following account, which we take from the police report of Wednesday last, offers an encouragement to Medical Practitioners to assert the rights of their Profession as defined by the Medical Act. According to the magistrate's idea of justice, it appears that stealing a title which can only be legally obtained by a large outlay of money, energy, and time, is fitly and sufficiently punished by a fine of one shilling. If the police magistrates of London are determined practically to ignore the Medical Act, their resolution had better at once be published. But we protest against such a "proper vindication" of the law as that with which Mr. Paget expresses himself satisfied:—

"At the Thames Police-court on Tuesday, November 15, George Fentiman, a chemist and druggist, was charged with wilfully and falsely taking and using the name and title of Surgeon, he not being registered under the Act 21st and 22nd of Victoria, cap. 90, sec. 40.

"Mr. Moss, a solicitor, conducted the prosecution for Mr. John Wills, a regularly qualified and registered Medical Practitioner, of Upper East Smithfield. The defendant carries on business in the same street. The case against him was proved several weeks since, and was ordered by the magistrate to stand over. It was now admitted that the defendant had since the formal conviction by the magistrate omitted the word 'Surgeon' from his bills and advertisements, and also erased the word from the front of his house.

"Mr. Moss said his client, Mr. Wills, had been put to considerable annoyance and expense by the conduct of the defendant. No one could or would take up these cases except a Medical man, although the best interests and wellbeing of society were concerned in carrying out the law. The complainant did not expect to recover all the expenses he had incurred in the prosecution, but some costs ought to be allowed.

"Mr. Paget said the law had been properly vindicated, and that was enough. If he found the offence repeated by the defendant, he should inflict the full penalty. At present he should impose a nominal fine of 1s., and 2s. costs."

SEWAGE AND SEWAGE DOCTORS.

We don't know whether many of our readers have read the Report of the City Coal and Corn and Finance Committee on the sewage of London; the account of the meeting of the Common Council thereupon; the letter of Baron Liebig to Lord Robert Montague; the letter of Mr. Hope, of the firm of Napier and Hope, to the Editor of *The Times;* the reply of Lord Montague to Mr. Hope; the Report of the Committee of the Metropolitan Board of Works, who have lately taken a country trip to Rugby, Croydon, Carlisle, and Edinburgh, for the purpose of gaining enlightenment on the sewage question; the Report of the Main Drainage Committee; and finally the speeches of Mr. Freeman, Mr. Tite, Mr. Doulton, and the other magnates of the Metropolitan Board;—if they have, we can understand and sympathise with the terrible state of bewilderment in which they must find themselves. As might be expected, the City Council and the Metropolitan Board are at the opposite poles of the question. The City believes in Lord Montague, Dr. Brady, and Baron Liebig; the Metropolitan Board, in itself and Messrs. Napier and Hope. The City Committee are all for delay, and for having the subject re-investigated either by Parliament or a Royal Commission,—they hold that the salvation of the population depends on the sewage being pumped by jet and hose in moderate quantities over large areas. They find the value of the sewage of London to be £2,899,972 per annum, and they profess a most laudable concern for the interest of the ratepayers, to whom they say this enormous sum belongs. The Common Councillors accept their report, espouse their views, and characterise Napier and Hope's scheme of carrying the sewage forty-four miles to the shore of the German ocean for the purpose of redeeming 12,000 acres of quicksand as visionary and ruinous. Baron Liebig pathetically warns the people of England in general, and Lord Montague in particular, that sewage pure and simple will after a time destroy the fertility of any land, and insists on the necessity of mixing it with phosphoric acid. Mr. Hope tells the Baron that his warnings are as unnecessary as his theories are unfounded, and that for forty years the Craigentinny sands, enriched by the fragrant streams of Edinburgh, have blossomed and brought forth abundantly, as wet flannel grows mustard and cress. He runs full tilt at Lord Montague, Dr. Brady, and the Civic Junta, and tells them that they are wilfully blinded and misguided. Lord Robert replies that "Hope told a flattering tale," and says that the bare idea of "an embankment in the German Ocean, four miles out to sea, in 20 feet of water on some quicksands, with the hope of reclaiming 12,000 acres of the Maplin sands," was quite enough to make him consign Mr. Hope and his scheme to limbo. Meanwhile the Metropolitan Board of Works, led by King Thwaites and the Main Drainage Committee, throw themselves at the feet of Messrs. Napier and Hope, and avowing that no scheme presents so great advantages, humbly and reverently make over to them the sewage of London for fifty years—subject (we are thankful to say) to Parliamentary authority being obtained and a grant from the Crown of the sands in the German Ocean. It seems pretty clear that one great charm Mr. Hope's scheme has in the eyes of the Board is that it will make some use of their tunnels, and not bring the sewage back, as Mr. Ellis proposes, to Hampstead and Highgate. Really this discordant chorus makes one sigh for the simplicity of the Chinese. Something, however, is to be done, and we must be thankful. The people of Sheffield are memorialising the Home Secretary against allowing any impurities, whether from drains, factories, or mills, to be poured into rivers, and as a moral to the whole, *The Times* of Tuesday contains the following paragraph:—

"An epidemic has been raging for some time past at Woolwich. The most distressing cases have been among families connected with the Government departments of the Royal Arsenal and Dockyards. Mr. Parkyn, Deputy-Superintendent of Military Stores, has lost four of his five children. Mr. Stone, a civil officer in the dockyard, has lost the whole of his children, three in number. The cause is supposed to be malaria, occasioned by the northern outfall of the sewage at Barking-creek. At two-thirds flow the surface of the tide is covered with a dark pestiferous matter, proved to be a remnant of the outfall, cast back before the ebb is sufficiently swept away. After each receding tide, and when the flood begins to make its appearance, the atmosphere along the river becomes insupportable."

We confess ourselves doubtful as to the part the sewage plays in the production of the alleged epidemic. The Registrar-General's report announces twelve deaths laat week in the Woolwich and Greenwich district from scarlatina. If this be the epidemic to which the writer of the paragraph refers, we may be allowed to question whether scarlatina is dependent for its production on any known physical influences. But we have no doubt that he truly describes the effects on the Thames of the gigantic blunder perpetrated by the Metropolitan Board of Works. It is only what we long ago foretold, and what any person with common sense, who had not been beguiled by the disinterested eloquence of engineers and contractors, would have declared must be the inevitable result of converting the Thames into the *Cloaca Maxima* of the largest city in Europe.

PIGS.

We have a great respect for Lord Chief Justice Erle and Justices Byles and Keating, and we should be very sorry if their lordships were subjected to the slightest annoyance, but we wonder whether they would alter their opinions as to the neighbourly qualities of pigs if some enterprising pork-butcher established a sty within forty yards of their hall doors. Would they allow that they were "an actual existing nuisance?" We have known within the last two years pigs kept in a cellar under a pastrycook's shop in Piccadilly—whether as suggestive of Melton pies, we cannot say; and even now there are pigs to be found in the stables and yards within the magic circle of Mayfair. However, the law takes the pigs under its protection, and, as will be seen by the following report of the case of the Vestry of Chelsea *v.* King, tried before the Judges of the Common Pleas on November 14, people with sensitive smells and a weak regard for untainted air and general cleanliness must be content to tolerate the pigs without seeking redress, or expect to be mulcted in the costs of an action:—

"This was an appeal from a decision of justices. The case arose under the Metropolitan Local Management Act, and the question raised was whether, under this statute, and the 68th section of the Michael Angelo Taylor's Act, a person was prevented from keeping a pig within forty yards from any street, so as to be a nuisance. In the present case a man kept a pig in Symonds-place, within forty yards of a street, in Chelsea. The magistrates were of opinion that there was not an actual existing nuisance, and that therefore the section of the statute did not apply, and dismissed the complaint.

"Mr. D. D. Keane, Q.C., contended that, under the statute, there ought to have been a conviction, and that its object was to prevent as well as to put down nuisances.

"The Court, however, were of opinion that there must be an actual existing nuisance, and that the decision of the magistrates was right.—Decision affirmed."

FROM ABROAD.—EXTENSION OF PUBLIC LECTURES IN FRANCE—DISCUSSION ON HOSPITAL HYGIENE.

Every one who has visited the Paris Museum of Natural History must have admired the fine lecture halls attached to it, and the system of employing celebrated professors to expound their respective branches of science to all comers exempt from payment. That Professor Owen's attempts to found similar free lectures in connection with the British Museum have hitherto failed speaks little for the desire for the diffusion of scientific knowledge through the agency of that establishment entertained by its guardians the trustees. Were they actuated by this the frivolous objections to such a

course and the opposition of routinists would long since have been overruled. M. Duruy, the present enlightened French Minister of Public Instruction, formerly himself, we believe, a professor, entertains a higher sense of the value of lecturing when undertaken by competent persons—a very necessary qualification. Encouraged by the great success which last year attended volunteer lectures by the Professors of the Sorbonne, he this year seeks for an extension of the system throughout France. The following are extracts from a circular which he has recently forwarded to the rectors of Universities and Academies :—

"There are in France 713 public chairs of superior instruction, 151 in Paris, and 562 in the Departments. These 713 Professors constitute an immense force, which, however, acts only at certain points and to the advantage of a limited number of persons. Only 18 towns possess faculties, and putting aside Paris, the 41 provincial faculties have only 12,000 auditors. There is, however, in every class a lively desire to learn, an extreme curiosity with respect to intellectual acquisitions. Many among our working classes, as well as among their employers, would be desirous during the long winter evenings to listen to eloquent or intellectual discourses which would cause them to forget the labours of the day; while women who have not access to the higher educational institutions are also desirous of enlarging their minds by directing them to varied subjects which written literature does not readily supply them with. A thousand signs reveal this want, and it is highly desirable that it should be supplied.

"Pray inform the members of the Faculties of your Academy how pleased I shall be in seeing them extend to the towns in your vicinity the knowledge, taste, skill in teaching, and the other qualifications which have obtained for them the confidence of the University and the esteem of the public. In every academical district there are populous cities which, thanks to railways, may now be easily brought into communication with the centre. Every considerable town, moreover, has its learned society, and there are now as many as forty-six of such societies, which, by reason of their importance, have been officially privileged as establishments of public utility. Some of their members would certainly take part in this crusade against ignorance and useless leisure. There is no need for a creation of regular and permanent courses, which would demand at the hands of public functionaries time which belongs to the State, and of volunteer lecturers a devotion which their private affairs do not admit of. I am not transmitting orders to the Faculties upon a matter concerning which I have neither the right nor the desire to prescribe, for the lectures will be purely voluntary; but I will only add that the University, having the duty of distributing scientific knowledge, and of incessantly raising the intellectual level of France, is morally bound to respond to an appeal from the country when those who are not furnished with instruction demand it. But while we engage the Professors to impose upon themselves these new duties, it is only just that we should stipulate for some advantages for them. Their salaries are too small to admit of their making sacrifices of time and money; and as the priest lives by the altar, so must the Professor by his lectures. It is my desire, therefore, that these courses of lectures shall be paid for, in order that the Professor, after having bestowed his talents and knowledge upon a second auditory, should, on his return to his family, bring with him the means of greater comfort."

The municipal authorities are to be charged with the remuneration and obtaining subscriptions for the lectures.

In continuation of the discussion on Hospital hygienics, M. Boinet laid before the Society his project for an entire re-distributions of the Hospitals of Paris. In the first place, he proposes a far more healthy locality for the new Hôtel-Dieu by placing it to the left instead of the right of Notre Dame, the miasmata and other inconveniences due to the Seine being thus got rid of, while the ground to be purchased will prove much less expensive. M. Boinet, moreover, proposes pulling down all the existing Paris Hospitals, with the exception of the Charité and la Pitiè, which, with the new Hôtel-Dieu, each with 250 or 300 beds, will serve for clinical teaching. Having removed all the other Hospitals—such as the Necker, Cochin, Beaujon, and sold their sites, he would construct a new system of Hospitals, of 150 to 200 beds each, beyond the barriers, sixty such for Medical cases and fifteen for Surgical being what he thinks at the present time required. Besides these, separate houses should be built for the reception of midwifery cases, and patients who have been operated upon, during the prevalence of epidemics. It is the enlargement of Hospitals in proportion to the demand of the localities in which they are placed that, in M. Boinet's opinion, has given rise to their present insalubrity, and an examination of the statistical history of the respective Hospitals has shown him that their unhealthiness has increased *pari passu* with their enlargement.

M. Legouest observed that the conclusions drawn respecting the salubrity and mortality of civil Hospitals were liable to error, in consequence of the complexity of certain conditions, rendering them with difficulty comparable. In this point of view Military Hospitals are more safe objects of study, the elements for examination being so similar. He has, therefore, investigated the mortality returns at different epochs of the three military Hospitals, Val de Grace, Gros-Callou, and Vincennes. From an elaborate statistical account for the thirty-four years, 1830-63, it results that the various hygienic improvements which have been put into force during that period, and the diminution of the number of patients placed in the wards have invariably been accompanied by a diminution in the ratio of mortality. This conclusion holds rigidly true whether different periods of the history of each of the Hospitals be compared, or whether the three Hospitals be compared with each other. The practical conclusions which M. Legouest arrives at are, — 1. That Hospitals should be placed not within towns, but in their suburbs; 2. They should be constructed in line, consist of a single storey, and be surrounded by courts and gardens; 3. Where this is impossible, the means of periodically and entirely evacuating wards which have been long occupied should be provided; 4. The mortality is proportionate to the number of patients accumulated in a Hospital, all else being equal, the larger the population of the Hospital the greater its mortality.

M. Voillemier declared that much of the discussion that had taken place with the intention of influencing the Administration of Public Assistance was superfluous and useless; for no one was more convinced of the truth of the hygienic conclusions which had been developed than the members of this Administration; but in point of fact it was a body powerless in the matter, acting under the direction and the control of the City of Paris. In fact, after all, it was an affair of money, the admirable suggestions which had been made for remodelling the Hospital system of Paris, erecting numerous buildings, and well remunerating the attendants upon the sick, only being defective in one point—the necessary funds. The Administration is supplied with the means of constructing one Hospital of 500 beds, but is unable to build two with 250 beds. The more the number of Hospitals is multiplied, while reducing their extent and capacity, the greater will be the cost. Twenty Hospitals constructed to hold 4000 patients will cost more than eight Hospitals of 500 beds. In this stress for money, it has to be determined whether patients are to be provided for in the best of all manners or in the greatest numbers; and the risk has to be borne in mind that if a few expensive Hospitals only are in operation, many may suffer from being unable to obtain admission. Owing to the Administration of Public Assistance being as it were swallowed up or subordinated by the municipal body, voluntary donations to the Hospitals have diminished. Contributors naturally wish to be assured of the distribution of their gifts, and are not pleased to know that they may be diverted for the reparation of a sewer or the construction of a barrack.

GORILLAS.—At the meeting of the Royal Geographical Society on Monday, November 14, Sir R. Murchison announced that M. Du Chaillu had sent to the British Museum seven gorilla skeletons and six gorilla skins preserved in salt, and among the live stock, he added, would be found "a live gorilla."

It is our sad duty this week to record the death of Peter Charles Price, F.R.C.S.E., late Surgeon to the Great Northern Hospital, and Assistant-Surgeon to King's College Hospital, at the age of 31. The illness that many months ago necessitated the abandonment of a Professional career which was rapidly exchanging high promise for assured success, terminated on Sunday last. It is now about three months since Mr. Price returned from the Continent in a condition which, as regards recovery, was perfectly hopeless. The greater portion of that time he spent at St. Leonards-on-Sea. Thence he was removed to Ventnor, in the Isle of Wight, where his death took place. His extraordinary abilities as a Surgeon, his kindliness of heart, his geniality of temper, the fascination of his society, are still fresh in the memories of so many, that we are sure there are but few Professional circles in London over which this announcement will not cast a gloom. It is our intention to give our readers an early sketch of his short, but brilliant career—far too short for Friendship, not too short for Fame.

REPORT ON CHEAP WINE.

(By our Special Empirical Commissioner.)

(Continued from page 521.)

Burgundy versus Port Wine.

I must now take the liberty of appealing to my Professional brethren, and ask them whether they think they are doing their duty to the public in the matter of wine? I fear not, and I will endeavour to prove it.

The teetotallers accuse us of recklessness in the manner in which we prescribe wine for our patients, and the teetotallers are to some extent right. Nothing, for instance, is more common than for Medical men to recommend feeble patients of all ages and all ranks to take a little port wine. If the patient be in such a station of life that he or she knows what real port wine is, and can get it, the prescription is doubtless judicious. Good old port is a valuable tonic.

But does it ever occur to Practitioners when prescribing for the middle or lower middle classes to consider what the port wine is which is too often vended at low shops and taverns? Do they ever take the trouble to examine the wine their patients get? Are they aware of the enormous quantities of fictitious wine, of most uncertain strength, which are nothing more than raw spirits, sweetened, diluted, and flavoured, with scarce a drop of wine in it? Do the professors of Materia Medica, who may dilate on forty or fifty preparations of iron, which a few invalid patients take occasionally, ever think of the composition and properties of the *drinks*, which are not only taken unsuspectingly by the healthy, but are even sanctioned for the use of the sick?

I confess myself to having been a sinner in this way in my time; but my eyes were opened when a poor, struggling schoolmaster, whose wife I was attending for an illness of debility, told me one day that he had got some port wine, and asked if she might take some. Curiosity prompted me to ask leave to taste the wine, which had cost 4s. 6d., and had been obtained at a neighbouring "wine vaults." When the cork was drawn it was scarcely tinted, and was a very bad one—a thing of no good augury for the wine. There was no smell of port wine. The liquid, when tasted, gave the palate half-a-dozen sensations instead of one. There was a hot taste of spirits, a sweet taste, a fruity taste like damsons, and an unmistakeable flavour of Roussillon. It was a strong, unwholesome liquor, purchased very dearly.

Now, let me urge upon your readers these aphorisms:—

1. Natural wine, as I proved in my last number, contains no more than about 18 to 22 per cent. of proof spirit; rarely, but possibly, 25 or 26;—all beyond is fortified artificially.

2. Wines that have been fortified, and brought up to 30 or 40 per cent. of proof spirit, like ports, sherries, etc., if good, must be of high price. They require enormous time to allow the added brandy to amalgamate and soften down, and to acquire good flavour and wholesomeness.

3. Fortified wines, if cheap, are usually of low quality, destitute of wine flavour, sweet, and very unwholesome.

4. If a Practitioner desire his patient to take *alcohol* simply, he ought to order him clean old whiskey, or gin, prescribe the dose, and direct how it should be sweetened or flavoured.

5. If the patient drink cheap fortified or fictitious wine, he is only getting coarse alcohol made doubly unwholesome, for which he pays an enormous price. As I shall show next week, alcohol is a mere drug; and although *a* constituent, is not *the* valuable one in wine.

6. In prescribing *wine*, the judicious Practitioner desires to give not merely *alcohol*, but a liquid containing the saline and extractive parts of grape-juice, and especially the glorious wine-flavour,—those powerful oils and ethers which give wine its *bouquet* and its marvellous exhilarating properties. True *wine*, as has been well said, contains more mineral ingredients than many a mineral water.

7. The distinctive elements of wine are to be had in abundance in cheap Bordeaux, Burgundy, and other French wine, in Rhine wine, in the Hungarian, and some Greek wine; and in all with a natural and not injurious quantity of spirit.

8. Therefore in prescribing *pure wine*, *i.e.*, light, natural, virgin wine, the Practitioner has a perfectly *new* article of both diet and medicine in his hands. And I most fervently recommend him, when treating cases of debility or cachexia, to try this new remedy. Try it in large doses,—*ter die sumend*,—find out what your patient likes, and give it him diluted with cold water with his breakfast instead of the enervating tea, as well as at luncheon and dinner.

But I shall be asked in a tone of horror, Do you decry port? Do you revile the true British drink, so congenial to our raw-beef dinners and foggy air?

Not at all. Port wine is a valuable medicine, and old port a rare luxury; but it is not everybody who can get it, and of the people who have it few past forty dare drink it. Besides, the notion of port as an universal wine is quite modern, as we shall see if we look back 200 years.

There is no doubt whatever that the national wine of the English was Bordeaux or Burgundy till the end of the 17th century. The French wines were heavily taxed to spite the French, and, after some fluctuations, were visited with a duty almost prohibitory. The support given by the Court of Versailles to the Stuart family, and the intrigues of Louis XIV. in Spain, induced the English Government to cultivate a closer alliance with Portugal, which culminated in the northern treaty in 1703. In 1675, says Mr. Denman, there came to England 14,990 pipes of French wine to 40 of those of Portugal; in 1776 there were 19,290 French to 160 Portuguese; but between 1679 to 1685 only 8 pipes of French wine were imported, whilst 13,760 pipes of Portuguese came in. Well may we say with Mr. Shaw that the French wines have not had fair play. For political purposes our people have been bribed to drink of the "drugged chalice" of ignorant boorish Portugal, who has treated us with a mixture of thanklessness and rascality unparalleled, whilst hatred against the French has been instilled as a religious creed, and their fine wholesome wines kept out by extravagant differential duties.

During the turbulent era in question, French wine was banished from England by politicians; but the educated and intellectual classes grumbled as much then as they would now, if all wines were banished save South African. As cheap wine now is called "Gladstone," so port was called "Methuen." The stage reviled it; the poets Prior, Shenstone, Pope all had a fling at it as dull, muddled, humble, thick, flat, cheap stuff. They are quoted by Denman, but I can refer to one besides who was Physician as well as Poet—Armstrong, in his "Art of Health," describing a man's sensations on awaking, says:—

> "You curse the sluggish port, you curse the wretch,
> The felon, with unnatural mixture, first
> Who dared to violate the virgin wine."

Again, when speaking of wholesome wine, he praises

> "The gay, serene, good-natured Burgundy,
> Or the fresh fragrant vintage of the Rhine."

Again, he describes Burgundy as the drink for gentlemen—

> "The man to well-bred Burgundy brought up
> Will start the smack of *Methuen* in the cup."

What Armstrong said 130 years ago I entreat my Medical brethren to believe now. I repeat it; if you want to prescribe *spirits*, do so; if you want to give *wine*, give *pure* wine. One bottle of good Burgundy will give twice the flavour and half the spirit that port does.

Alcohol Determinations.

	Per cent. proof spirit.	
South African port, *Gilbey*	38·6	These four wines were mentioned in my last.
Santorin, *Denman*	27·1	
Como, *Denman*	39·	
Roussillon, S. and R.	23·	
Elbe port, *very cheap and nasty*	30·4	
Very good first-class port from wood (*Sandeman's*); will be fit to drink in about 15 years, perhaps	44·	
Port from a tavern (good wine)	34·6	
Draught port fetched from a public-house kept by a fighting man—smells of spirits; has a little fruity taste, *quere* prunes! no smell of port wine; costs at the rate of 9s. 4d. per gal.	34·	
Port on draught from a public-house; at the rate of 21s. 4d. per gal.; tastes strong; gives a curious sense of pungency on tongue; no smell of port wine	35·9	
Port on draught from a tavern near Leicester-square; 21s. 4d. per gal.; tastes sweetish, with a kind of burnt raisin taste; like the stuff called Sacramental Tent; no port flavour	26·7	

These determinations were made with Crockford's Patent Wine Indicator. One sample was tested by taking the specific gravity by a bottle, neutralising the acid; taking specific gravity again; boiling off the alcohol; making up the original bulk into water; taking specific gravity again, and calculating alcohol by Lowitz's table. The two processes agreed within one degree.

From these determinations, which merely confirm those given by the Government and Customs' Commissioners, by Brande, Bence Jones, and others, we see the enormous amount of added spirits in the best port; the enormous time that wine must lie by to become drinkable; the great variety of strength in the mixtures sold to the lower classes as port, ranging from 27—the strength of the Leicester-square sample—to South African, 38·6; and the great variety of stuff of all sorts which may be hot, sweet, a little fruity, and a little rough, but which by no chance is port wine fit for sick or well.

(To be continued.)

THE MEDICO-LEGAL ASPECT OF FRANZ MULLER.

(*From a Correspondent.*)

No occurrence of recent date has occupied the public mind more completely, even to the exclusion of all other topics, than this somewhat remarkable case; and since the apprehension of the murderer, and his subsequent trial, the questions of guilt and innocence have been the theme of universal comment. All who accepted the evidence which the Crown brought into Court never doubted the issue of the trial. Still, looking at the comparatively youthful prisoner and his peaceful antecedents—the absence of much physical strength, or signs in his countenance of the baser propensities—many reflecting persons doubted whether his unaided powers could, in so short a time as it took for the transit of the train between the two stations, effect so much injury to the murdered man, accomplish the robbery, eject the body out of the railway carriage, and, finally, escape.

The blow on the head, which penetrated the brain and its membranes, and which most probably was effected whilst the victim was asleep, was beyond all doubt the cause of death. Probably, convulsions immediately followed, which would unseat the sufferer, and materially aid the ejectment of the body from the carriage. Little physical force would thus effect all the chief points connected with the tragedy; neither would it take much time to complete them. Hence these many seeming improbabilities, on careful reflection, vanish.

The evidence, as is usual in such cases, was wholly circumstantial, but which, the Chief Baron remarked, is in all its relations more reliable than personal. No trial was ever conducted with greater care or sounder judgment,—the more so, doubtless, because the accused was a foreigner. Our friends, therefore, across the Channel may accept our testimony on these points. Yet, after three days' patient investigation, aided by the presence of two of our ablest judges, the evidence was so conclusive that the jury, after fifteen minutes' deliberation, found their unanimous verdict of guilty.

The German Protection Society, laudably anxious to give their countryman every available assistance in his trial, pushed their efforts far beyond the limits of reason and rightmindedness. In obtaining the first legal opinion in the country to defend the accused we commend them; and had they rested content with this we should have hesitated to express our disapprobation at their proceedings; but with restless and misguided energy they have, subsequent to the finding of the verdict—the result of one of the most painstaking inquiries on record, and which may well serve as a model case; and which, too, was in keeping with the confession of the murderer,—sought by every illegitimate means to upset it! And worse than this, they have given hope to him who, on the conclusion of the trial, was practically dead. Still, stern Justice, ever the protector of the innocent, has asserted her prerogative, and removed to a higher tribunal him for whom, while he lived, there was Divine mercy.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF LINCOLN.

(Continued from page 524.)

I referred at the close of my last article to the introduction into the Lincoln Lunatic Asylum of the system of non-restraint in the treatment of the insane. It remains for me now only to remark briefly on the progress and present state of the institution.

Since the year 1838 the utmost possible freedom has been allowed to patients, and no reason has ever been alleged against the practice. At the present time, so thoroughly is this system adopted, that the patients, male and female, on their respective sides of the house, are allowed to move pretty well where and as they like. There are galleries, it is true, but except in very rare instances the inmates are not shut up in any one gallery, nor confined during the day to any one room.

The system of parole recommended some years since by the Commissioners of Lunacy has been tried at this Asylum. It is not so uniformly good in its action as could have been wished, nor as has been anticipated. In a late report—1856-8-9—it is affirmed that the parole plan frequently has occasioned great anxiety. It was found that some patients would keep their parole honourably; but even they learn to lounge about the city, and prefer habits of idleness to those of industry, forget discipline, and are injured rather than benefited by the release, their recoveries being retarded. Further, the plan tends to take away the more intelligent patients from the grounds of the Asylum, and, consequently, the usual games and employments become neglected.

Those at home, by this innovation, lose intelligent companions, and those who go out refuse to associate with the inmates as before; they naturally aver that they can find better amusement abroad. Besides, there is always a danger of a relapse. Notwithstanding these evils, however, there is some good attending this extension of the patient's liberty; but there needs caution in the application of the privilege.

Another privilege, also, with caution, works well. Patients are permitted to visit places of amusement (accompanied, of course, by proper attendants)—such as theatres and concerts. A boat has been presented to the Institution by Mr. Hall, the zealous and intelligent Secretary; and, as boating is a favourite amusement, with very considerable benefit to the patients.

In the twenty-third report, from which the above information is derived, it is stated that in cases of lunacy little medicine need be used; and on reference to the Physician's journal it is discovered that months have passed away without a single prescription. The general report has been that the house was quite healthy. There has been no endemic disease in the Institution. It may be useful to account for its general salubrity.

"First, it may be stated that the drainage is good; and next, that warmth is procured from the radiant heat of fires and clothing only, and not from the agency of hot air. The sitting-rooms are about five degrees warmer than people generally like them; but this extra warmth is beneficial to persons of a languid circulation, and preferred by them. There is also

no diet table; but all eat what they please of food fresh cooked. Green vegetables and fruits are frequently supplied, and the Governors are advocates for their liberal use. These seem to be the general causes for the healthiness of the establishment. The situation of the Institution is also eminently favourable. Since the able report of Mr. Walsh about seven years ago, the house has not suffered from chronic dysentery or diarrhœa; and other institutions are adopting the system therein recommended. Wine and porter are allowed in small quantities, when considered requisite; and the patients are a great deal in the open air."

There are six wards in the Institution, each of which is under the care of two attendants, who keep a daily register of the proceedings of each patient, and of any illness or peculiarity which may have been presented. The patients themselves are divided into three classes or ranks, the major part being maintained by their friends. In the year 1859 there were seventy-four inmates, and this may be taken as an average for the past several years. The main cost of maintenance is defrayed by the friends of patients, the sums payable being regulated according to the class in which the patients are placed. The cost to the Institution of each patient is rather more than in some other similar institutions. The subjoined statement shows the—

Cost per Head, calculated on the Average Daily Number of Patients in the Year.

	Total cost per year.	Average cost per year.	Average cost per week.	Average cost per day.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Salaries and wages .	643 15 1	8 5 0¼	0 3 3	0 0 5¼
Food, including household	1322 7 6	16 19 0¼	0 6 6½	0 0 11½
Coal, lighting, etc. . .	265 7 4	3 8 0½	0 1 3½	0 0 2½
Medicine, printing, etc. .	190 10 0	2 8 11¾	0 0 11½	0 0 1¾
Furniture and linen. .	288 1 11	3 13 10½	0 1 5	0 0 2½
Repairs, taxes . . .	312 18 5	4 0 3	0 1 6½	0 0 2½
	3023 0 3	38 15 2	0 15 0	0 2 2

The grounds of the Asylum are spacious, and every kind of amusement is supplied. The next Table shows the number of patients admitted, with the results from the commencement of the Institution to the year 1859:—

Admitted as patients	1385
Re-admitted	343
Recovered	603
Otherwise discharged . . .	713
Died	343
Remained from each year . . .	74

The establishment is under the able superintendence of F. D. Walsh, Esq.

Honorary Medical Staff.

Physicians—John C. Torry, M.D., G. Hutchinson, M.D.
Surgeons—J. M. Snow, Esq., J. Hewson, Esq.

THE LINCOLNSHIRE COUNTY LUNATIC ASYLUM.

The Lincolnshire County Lunatic Asylum is situated at Bracebridge, two miles to the south of Lincoln. At one time the site of the Asylum was on the borders of the Lincoln Heath by the "Ermin-street" of the Roman period, or the great North road. The Asylum sprang from the operation of the County Asylum Act, which passed in the year 1845: it was built with great thought and care, and was opened in the year 1852. It is one of those noble edifices for which the country has once in a way to thank the Legislature. The design of the Asylum, architecturally, is Italian; the building is of stone. In the construction the Committee of Visitors were fortunate in securing the valuable assistance of the present superintendent, Dr. Edward Palmer.

The Asylum itself, with its out-buildings, offices, roads, etc., covered originally fifteen acres of ground; but during this year a new wing is being added, so that more ground has been taken up. Around is a farm consisting of nearly thirty acres, and which is in a state of fine cultivation and a source of considerable profit to the Institution.

The central block of the building faces the south, and has on each side two extending wings and one receding wing; on the western side a new wing is now being added. The central building contains the house of the superintendent, the chapel, the visitors' rooms, and the offices. On one side of this part of the asylum is an artizans' court, on the other the laundries and drying grounds. Connected with the building where the patients reside are exercise courts or grounds, of considerable size.

The wards are spacious; they vary in length from 125 to 175 feet, and they are all 12 feet 6 inches high. The ceilings are peculiar, they are arched and in brick, so as to be fire-proof, and the bricks being hexagonal in form the surface of the ceiling is greatly relieved. The wards throughout are cased with brick. In the single rooms and galleries warming and ventilation are carried out by Price's system, invented by Price, of Derby-street, Westminster. This system supplies heat by means of the circulation of hot water, and there are ventilators for admitting air into the galleries near the floor. The ascending currents of air escape through openings from the ceilings into flues, which communicate with two large extracting shafts. Price's system, though simple enough when seen in action, is too difficult to be described on paper without a diagram. Dr. Palmer tells me that it works very well for the galleries and single-bedded rooms of the Asylum, but in the day rooms, open fire-places and natural ventilation are considered best. Two of the wards are ventilated on the plan invented by Dr. Chowne, and Dr. Palmer thinks that these wards are exceedingly well ventilated. All parts of the house are lighted with gas, and the gas services are of two kinds, the day and the night. The day service is connected only with the burners that are used up to bedtime, the night service supplies the burners in the dormitories. The bathrooms, lavatories, and water-closets are commodious and well ventilated. They are in each case blocked together in order that all the waste water may be used in flushing the drains. The water-closets are self-acting, and on the men's side there are urinals, which are also flushed by means of self-acting flushers. The baths are made of enamelled copper, and hot and cold water are laid on to all the taps.

The bedsteads are of wood, with mattresses of horse-hair, and the bedrooms have a cheerful appearance. A Turkish bath is a requirement not as yet introduced into the building. The decorations of the wards are less striking than in the other County Asylums it has been my good fortune to visit, and the galleries are, I think, less lighted by the sun; but, as a whole, the Asylum bears excellent comparison with the other buildings of its kind.

Practical Improvements.

I noticed one or two novelties in the Asylum which seemed to be of sufficient interest to deserve mention; they have all been introduced by Dr. Palmer.

Outside each dormitory there are placed cases for holding the clothes of patients during the night. The cases are divided into compartments, which are numbered according to the bed occupied by the patient. On retiring to rest each patient has his day clothes placed in his compartment, so that the dormitories are never encumbered with the cast-off garments of the day, and in the morning no time is lost in finding the garments again.

A very ingenious plan for procuring the diffusion of carbon from burning gas is used. It consists of a copper cup, which, held by a strong metallic bar, descends over the flame; the cup in course of time gets very hot, and the fine carbon is oxidised. Plates of talc and various forms of glass cups or shades have been adapted to gas-burners with but partial success, because these only prevent the direct ascent of the unconsumed carbon, which is as much diffused as ever, though more widely and generally. The copper cup does more; it leads to a consumption of the carbon, and to its transformation into gas, which of course escapes, leaving no deposit. The copper cup might well be introduced into dwelling houses, and, indeed, into all places where gas is consumed, and where it is an object to avoid dust.

In the lavatories in lieu of taps for governing the water supply, there is a pendulum stopper which works by the mere action of a lever. When the lever is moved the water flows, but the moment the hand is removed the current ceases.

To prevent the servants using the sculleries for the emptying of slops, and the hoarding of brooms and house-cloths, there are set apart special closets called "broom-closets." In these closets the servants are obliged to store away brooms, pails, and all other accessories used in cleaning; and here, too, directly into the drain, all water that has been used in cleansing is poured.

The number of patients in the House on April 20 of the present year was 456; of these 218 were males, and 238 were females; they were all paupers. The recoveries of the patients in the year 1863 were 27·6 per cent. For males the recoveries were 18·8 per cent., and for females 34·2 per cent. The mean annual death-rate was 10·5 per cent.—viz., 8·03 per cent. on the women's side, and 14 per cent. on the male side.

The patients, male and female, are kept at all times actively engaged, either in work or play. Their industry has recently been well marked, so much so that the profits on the men's work reduced the weekly cost 3½d. per head. The male patients work on the farm and in the artizans' court; the females are employed in needlework and housework, and they succeed in maintaining all the linen and their own clothing in a complete state of repair. The patients were occupied in the manner described below in the last year:—

Number of Male Patients Usually Employed.

On the Farm	60
In the Kitchen	2
„ Dispensary	1
„ Shoemakers' shop	4
„ Tailors' shop	3
„ Painters' shop	2
„ Engineer's department	1
„ Steward's	6
Helping in the Wards	36
Total	115

Number of Female Patients Usually Employed.

Laundry	28
Kitchen	8
Residences	3
Needlework, and helping in the Wards	121
Total	160

Neither are the inmates less active in play than in work, for games of all kinds are carried on in the grounds during the summer, and the want of a recreation hall for the winter is severely felt.

The following statistical facts illustrate the results of treatment since the commencement of the institution:—

Admissions, Discharges, and Deaths, from the Opening of the Asylum to December 31, 1863.

	M.	F.	Total.
Admitted from Aug. 9, 1852, to Dec. 31, 1862	611	599	1210
Re-admitted	78	82	160
Total under treatment	689	681	1370
Discharged—			
Recovered	163	223	386
*Not recovered	70	55	125
Died	237	172	409
Total discharged and died	470	453	920
Remaining in the Asylum, Dec. 31, 1863	219	230	*450

Income and Expenditure.

The income of the Asylum is derived from the profits of the farm, and from contributions from unions. In 1863 the farm yielded £162 5s. 4d., and the unions contributed £9135 15s. 11½d. The whole income, one or two minor items being added, amounted to £9551 1s. 11¼d. The whole expenditure, including salaries and wages, provisions, necessaries, dispensary, wines, spirits, and porter, furniture (£369), clothing (£957), miscellaneous (£183), and the cost of working the farm (£345), amounted only to £9509 3s. 11d., leaving a balance to the good of £41 18s. The average charge on each patient per week was 8s. 1½d. The officers' salaries paid amounted to £1055 6s. 11d. The attendants and servants' wages amounted to £945 17s. 2d., and yet the cost of maintaining the patients on the best diet, with every comfort, and even with luxuries, left a balance on the side of the income, which balance increasing from year to year, with a decreasing rate of payment by the unions, has reached now the sum of £1254 18s. 3d. There is here another lesson to the managers of Hospitals for the physically sick. Will the Profession not read it and learn it, and learn from it?

I have only one other point to dwell upon in reference to the Lincoln County Asylum—viz., that Dr. Palmer is making very scientific and practical efforts to retain and utilise the sewage. He has nearly completed the construction of a large filtering tank, with an absorbing tank attached, and we may hope in a few years to hear from him some account of his increase of crops, and of the extent of his farm, without extent of actual space.

T. B. Belgrave, Esq., is the Assistant Medical Officer of the Asylum.

REVIEWS.

The Principles and Practice of Obstetrics. Illustrated with 159 Lithographic Figures from original Photographs, with numerous Woodcuts. By Hugh L. Hodge, M.D., Emeritus Professor of Obstetrics and Diseases of Women and Children in the University of Pennsylvania, etc., etc. Philadelphia: Blanchard and Lea. 1864. London: Trübner and Co. Quarto, pp. 550.

An American system of obstetrics would be sure to be received with considerable interest by Practitioners on this side of the Atlantic, who would be anxious to learn anything which had been said or done by their fellow-workers on that continent to advance the art and science of Midwifery. Unfortunately, the book before us will disappoint most of the hopes thus felt, for in many points the practice and pathology have a retrograde rather than an advancing tendency, and some points which we should expect to be discussed are passed over almost in silence. The condition of the puerperal woman has been the subject of considerable discussion as to whether her state be that of plethora or of anæmia. In common with the general change of opinion as to the treatment of disease, whether such alteration depends upon a more advanced pathology and a better appreciation of the various processes which take place in the system, or upon a change of type in disease, an opinion originated by Dr. Simpson, and supported by high authority, not only in this country, but also in France and Germany, has generally spread among the minds of Physicians that the body under such circumstances is in a state allied to anæmia, an opinion supported by the frequent discovery of albuminuria, the diminished proportion of red globules in the blood, and the presence of urea in that fluid.

On this point, however, Dr. Hodge uses a variety of arguments to prove that the albuminuria, etc., are caused by a plethoric state of the vascular system; and, holding such views, we are not astonished to see him advise blood-letting on many occasions, especially in connexion with convulsions, where he looks upon anæsthetics as only taking the place of opium and such like remedies. His treatment of the lying-in woman quite accords with this idea where he could keep her on "low diet, *i.e.*, simple farinaceous articles, neither hot nor cold." "The objection to a full diet is the predisposition to an inordinate reaction, which might result not only in milk fever and mammary inflammation, but also in the more severe forms of ovarian and peritoneal inflammations." The sooner such an opinion can be banished from the minds of Practitioners, the better do we believe it will be for mothers. We must not confuse a physiological process with a pathological condition. Neither labour nor the puerperal state are to be looked upon as disease; rather should they be regarded as the performance of a natural and healthy function.

Dr. Hodge advises that the patient should be kept in a recumbent position for four weeks, and that the child should be dependent upon the mother entirely for twelve months at least; he prefers two years, or till the second summer be past. We do not know what they can bear, but we are sure English ladies could not support such a strain upon them. Hawthorn accuses the English women of being too beefy, and we have heard American ladies described as somewhat too little inclined to *embonpoint*, but we think that they would not be suffering from plethora by that time; in fact, if there be one thing more than another that one has to insist upon among parents in the lower classes, it is the urgent importance of never nursing their children, even partially, more than twelve months. The disregard of this advice brings large numbers of women to our Hospitals suffering from headache, leucorrhœa, palpitation of the heart, and other signs of an overwrought frame.

No mention whatever is made either of Dr. Marshall Hall's or Dr. Sylvester's method in treating of asphyxia in the newly born.

In a recent discussion at the Obstetrical Society of London it was unanimously agreed that should the hæmorrhage resulting from placenta prævia appear at a time when the child was viable, premature labour should at once be induced. The only difference of opinion was as to how this should be accomplished. Dr. Greenhalgh, whose paper gave rise to the debate, advocated the introduction of an india-rubber bag covered with spongio-piline into the vagina, which was then to be inflated until the canal was effectually plugged; at the same time, a firm bandage was to be placed over the abdomen

and ergot of rye administered internally. Dr. Barnes strongly advised his elastic bags to be introduced into the cervical canal to dilate the os, and Dr. Braxton Hicks urged the advantages of his bi-manual method of turning. In speaking on this subject Dr. Hodge proposes that delivery should be postponed if possible, and, with this end in view, recommends the introduction of small pieces of sponge into the vagina, not to plug it, but to facilitate the coagulation of blood in the cervix and at the upper part of the vaginal canal; should, however, labour supervene, the tampon must be applied until the os uteri be dilated, when the membranes must be ruptured if they do not spontaneously burst, and should the hæmorrhage continue the child must be turned.

A plan suggested by Professor Wigand, of Hamburg, more than thirty years ago is highly spoken of by our author. It consists in plugging the vagina with small pieces of linen, securing them externally by a compress and T bandage until the uterus contracts and causes the plug to distend the perinæum, when it must be gradually removed. Should the uterine contractions fail to cause rupture of the membranes they must be punctured, and, if necessary, ergot of rye administered.

But we gladly turn to that part of the book which gives evidence of considerable and painstaking investigation. The mechanism of labour is a subject which still gives rise to considerable difference of opinion, and Dr. Hodge deserves well of the Profession for the endeavour which he has made to throw light upon this difficult question.

To gain an idea of the pelvic canal, he has had a cast taken of its interior, and this has led him to divide it (unlike Cazeaux and Moreau) into four *unequal* sections. The lines by which this is effected will pass through the symphysis pubis, the centre of the sacrum and coccyx, and from an inch in front of the sacro-iliac symphysis on each side through the ischiatic spines inferiorly. The direction of the two anterior sections is from above, downwards and inwards, and from behind forwards, while the posterior sections have a direction backward, downward, and inward. He also describes four parallel planes through which he believes the head passes in its course to the floor of the pelvis :—1st. The brim of the pelvis. 2nd. A plane running from the sub-pubic ligament to the middle of the second bone of the sacrum. 3rd. A line on a level with the spines of the ischia, where the cavity becomes rapidly contracted, and where "rotation" begins. 4th. A line extending around the extremity of the coccyx as a centre. From a consideration of these points, Dr. Hodge believes that the top of the head descends in a straight line in the axis of the superior strait until it reaches the floor of the pelvis; that when it is as low as the coccyx the base of the cranium will reach above the level of the sub-pubic ligament. The head, therefore, has to depress the coccyx before the base can pass under the arch. Having done so, the nape of the neck remains directly under the pubis, and the rest of the head describes the segment of a circle around the sub-pubic ligament as a centre, so that the true axis of the pelvis is formed by a line drawn from the centre of the superior strait through the centre of the radii of a circle thus formed which line will be straight from the first to the second parallel plane, but curved from that point downwards.

By presentation, Dr. Hodge would have us understand "that portion of the fœtal ellipse which is recognised towards the centre of the canal of the pelvis and vagina;" by position, the various postures in which the body and limbs of the child may be placed in any presentation; and he describes six different positions for each presenting part.

In tracing the head through the pelvis, he does not adopt M. Cazeaux' divisions—viz., those of flexion, descent, extension, rotation, and external rotation,—as these stages run one into the other, and two or more may be in progress at the same time; but he recognises five periods: 1st. The passage of the head through the superior strait and through the os uteri. 2. The descent through the cavity of the pelvis. 3. The passage through the inferior strait. 4. That through the os vaginæ. 5. Delivery of the body of the fœtus. As the head passes through the pelvis in the first position—*i.e.*, where the occiput is directed towards the left anterior inclined plane, and the os frontis towards the right posterior inclined plane,—our author believes the middle of the sagittal suture to be in the centre of the pelvis, and the head in a state of semi-flexion, so that the posterior fontanel is lower in the pelvis than the anterior, and the forehead is above the sacro-iliac joint; whereas the fontanels are generally described as level, and the forehead as opposed to the sacro-iliac symphysis. Under the powerful contractions of the uterus, the membranes rupture, the head becomes completely flexed, the chin being in contact with the sternum, and descending through the os uteri. The posterior part of the sagittal suture now occupies the centre of the pelvis, or should the resistance have been great, the posterior fontanel will be found in that position, while the right parietal protuberance will correspond to the right, and the left to the left acetabulum. The cervico-bregmatic diameter is parallel to the left oblique, and the bi-parietal to the right oblique, diameter of the pelvis. In thus describing the position of the fœtal head, it will be seen our author differs from Naegelé and those writers who have followed that German authority; and he believes that their error has arisen from regarding the os vaginæ as the centre of the pelvis, instead of being, as it is, in the anterior portion.

The head having passed through the os uteri in this position returns to a state of semiflexion, and as it descends in the pelvis becomes rotated in the following manner:—The occipital protuberance strikes upon the left anterior inclined plane and is turned forwards and upwards, while the forehead makes a corresponding turn in a contrary direction, and being extended presses upon the coccyx; that bone yields, and thus at one time descent, rotation, and extension are going on. If a careful examination be made as the head is passing through the inferior strait, it will be found that the posterior fontanel is in the centre covered by the perinæum, the bi-parietal corresponds to the transverse, the cervico-bregmatic is parallel to the antero-posterior diameter—in fact, precisely as the head entered the superior strait, the only difference being that at the brim the head was semiflexed; here it is partially extended. The subsequent passage through the vaginal canal is that of continued extension: the rectum, the anus, the perinæum—each in its turn bearing the brunt of the downward pressure until the direction of the orifice of the vagina is changed from forwards and downwards to an almost horizontal position. The head having escaped, external rotation or restitution takes place, which we need not describe.

Whether these views prove correct or not, they deserve, and will no doubt receive, the careful consideration of obstetricians.

PROVINCIAL CORRESPONDENCE.

IRELAND.

(Continued from page 526.)

Dublin, November 9.

On Monday, the 7th, at ten o'clock, Dr. Hudson opened the clinical session in the Meath Hospital and County Dublin Infirmary with a very able address, choosing for his subject "the applications of method to the study of clinical Medicine; or, as it might be termed, to the construction of the science of clinical Medicine." In the course of his address he gave the students present much excellent advice upon the observation and recording of morbid phenomena, pointing out the necessity for previous accurate acquaintance with the healthy standards. Towards the close of his lecture, of which it is impossible, in the space which remains to me, to give even a feeble outline, he urged upon them the claims which a due regard for their health, their reputation, and the reputation of the Hospital had upon them. As to their health, he said:—"Husband your strength, knowing that the demands upon it in your after life will be, to say the least, great, perhaps overpowering. The over-worked and enfeebled brain, the softened heart, the dyspeptic stomach, the typhus poison to which the exhausted vital forces almost certainly succumb—these are but some of the modes by which the successful Medical man is carried off in the very meridian of his fame and usefulness, dying, like the Roman gladiator, while the shouts of the amphitheatre are still ringing in his ears. Such was the fate of Dr. R. Todd, cut off in the prime of life, such also that of one whose irreparable loss to his Profession we all deplore, Dr. Robert Mayne."

On the same day, at one o'clock, the Medical School of Trinity College was opened by Dr. Stokes, F.R.S., Regius Professor of Physic in the University, and Physician-in-Ordinary to the Queen in Ireland. The theme of his address was the importance of mental culture to the Practitioner in Medicine. "Medicine," he said, "required to be served, fostered, and elevated. It required to be served, as it was a progressive science, demanding for its service an army of educated men to act as discoverers; it should be fostered,

because, from the nature of man's mind, in its unimproved state, it had been long kept, as compared with its sisters, Divinity and Law, in an inferior position; and it should be elevated, not only because a large proportion of those who enter it were educated as if they were to be members of a caste, and not of a Profession, but also on account of the facility with which it could be, and was too often, degraded to the level of a trade." The inferiority alluded to was the result of the system which admitted large numbers of uncultivated men into the Profession, and was an evil of such magnitude that, were it not for the good and purifying influences of Medicine itself on the character of those engaged in its work and in its charity, the consequences would be deplorable. Of the nineteen bodies empowered in the United Kingdom to grant diplomas entitling the holders to practise Medicine and Surgery, there were but three which by their practice essayed to give to Medicine its proper position, in an educational point of view, as compared with Divinity and Law; these were the old Universities of Oxford, Cambridge, and Dublin. But from an examination of the Medical Register, it appeared that not more than one-fortieth of the Medical Profession of Great Britain and Ireland held degrees from these Universities; that is, had received that University education which placed the members of the learned professions, at least in England and Ireland, on terms of social equality. What, then, was the duty of all licensing bodies throughout the kingdom, whose true work should be to watch over and advance the character and status of their licentiates, and to elevate the entire Profession? Was it not that, irrespective of all other considerations, they should seek to send forth their graduates without any stamp of intellectual inferiority upon them? The ancient Universities of Scotland, the University of London, and the Queen's University in Ireland, all possessed full means for enforcing the education in arts, and they had professors who would do honour to any seat of learning in the world. But in their system that continuous education in arts which so enlarged and liberalised the mind was not, as in the old Universities, made to apply to their Medical classes, so that to these latter they were, as he had before observed, faculties rather than Universities. Far be it from him to say one word in their disparagement. He was himself a graduate of the University of Edinburgh, and whatever success he might have had in life, he traced to the teaching and example of her honoured Professors. He only wanted those Universities to put into action the means which were fully at their command, to follow the old Universities of Bologna and of Paris, and the still older University of Salernum, in all of which the study of philosophy was made inseparable from that of Medicine, and he did not doubt that as years rolled on all their Universities would unite in one noble brotherhood, that they would think less of the numbers than of the mental training of their graduates, less of special instruction than of education, and so further that system which had been the mainspring of England's greatness, because the nursing mother of her intellect and her virtue.

The foregoing are but a very few extracts from Dr. Stokes' masterly and very important address, which it is to be hoped will be published in full.

November 12.

Your publication of April 9 last, vol. i., 1864, p. 408, contains a very full account of the laying of the first stone of the new Carmichael School of Medicine, as well as an ample description of what the building was intended to be. It is now, therefore, unnecessary to do more than to state that the work then auspiciously commenced has been successfully completed, and that a most fitting, splendid, and effectual monument has been raised to the memory of one of Ireland's greatest Surgeons.

The new school, whose admirable arrangements have already been mentioned in the article to which I have referred, was formally inaugurated on Wednesday, the 9th inst., with an eloquent address by Dr. Robert Macdonnell, in the course of which the speaker gave an able review of the life and writings, and of the noble deeds of the illustrious philanthropist who devoted so large a portion of his honourably earned fortune to the promotion and perpetuation of his favourite science, and to the relief of the sufferings of those members of his Profession and of their families whose misfortunes placed them in need of such assistance. It will be recollected that Mr. Carmichael having, during his lifetime and by will, given to the Royal Medical Benevolent Fund Society of Ireland the total sum of £5000, and having left £3000 to the Royal College of Surgeons in Ireland, the interest of which was, at stated periods and under certain conditions specified in the will, to be awarded by the Council of the College to the authors of the best essays on the subject of "Medical Education," bequeathed the sum of £10,000, payable on the death of his wife, should she survive him, for the foundation of a school—£8000 to be devoted to the erection of the building, and £2000 to be invested to create a fund for the annual distribution of prizes among the students. Not only has Mrs. Carmichael handed over this large sum during her lifetime, thus voluntarily depriving herself of a considerable portion of her income in order the sooner to carry out the benevolent wishes of her husband, but, as Dr. MacDonnell stated, she has virtually added £1000 of her own by causing the £10,000 to be paid without any deduction for legacy duty. "Our best thanks," Dr. MacDonnell well added, "to her shall be in our earnest endeavour that the school may prove to be, not a lifeless monument to her husband's memory, but one which, to repeat the eloquent words of Lord Carlisle, 'shall cause him, though dead, yet to speak in precious services to suffering humanity, still to live in the thanks and blessings of rescued multitudes.'"

Through the judicious liberality of the Board of Trinity College, the machinery for the efficient teaching of Medical and Surgical Science in Dublin will this year receive another large addition. A splendid new dissecting-room has been built, at a cost of £1000, within the precincts of the University on a plan similar to that of the celebrated rooms at Clamart in Paris; the old dissecting-room will be converted, at a very considerable expense, into an anatomical and pathological museum, human and comparative. Museums of Materia Medica and Midwifery will be established, and a copious library and commodious reading-room will be opened for the use of the Students. These liberal and judicious arrangements are quite in keeping with the enlightened measures successively adopted by the University during the last few years for the advancement of Medical and Surgical science, and for the elevation of the Profession by the only true means of attaining that desirable end—raising the standard of its general and special education.

On the same day, at one o'clock, the fourth clinical session at the Mater Misericordiæ Hospital, in Eccles-street, was formally opened by Dr. Hayden, Professor of Anatomy and Physiology in the Catholic University. Of the admirable arrangements of this Hospital I spoke in a letter which appeared in your columns soon after its opening, I therefore need not now enter into detail. Among other interesting topics the learned Professor referred to the important services recently rendered by chemistry to Practical Medicine, instancing the discovery by the Rev. Professor Haughton of the controlling influence of nicotine over tetanic spasm, and that by Polli, of Milan, as the result of a great number of experiments upon inferior animals, of the decomposing action of the alkaline and earthy sulphites on septic blood poisons. He next enumerated some diseases, previously unknown, which have recently been added to our nosology, such as the cachexia exophthalmica, or Graves' disease; melasma suprarenale, or Addison's disease; leucocythemia, thrombosis, or embolism, and trichinosis. Dr. Hayden informed the meeting that the front of the Hospital, completed in 1861, had been erected at a cost of £28,000, and having adduced statistics of the working of the institution since its opening, made some remarks upon the ventilation of Hospitals in general, and described the wards still to be erected in the Mater Misericordiæ, each of which is to be 296 feet long, capable of subdivision, 24½ feet wide, for two rows of beds, and 18 feet high. In conclusion, he stated that Dr. Bristowe and Mr. Holmes, deputed by the Medical Officer of the Privy Council to visit and report upon the Hospitals of the United Kingdom, summed up their report of the Mater Misericordiæ in the following terms:—"This Hospital promises, in our opinion, to be, when completed, one of the finest in Europe. It is built on the corridor plan, but the distribution of corridors, and wards, and beds is such as entirely to neutralise any ill effects that could possibly flow from the adoption of this plan; while all the advantages that spacious, cheerful, well-ventilated corridors afford are thoroughly secured. The only valid objections which can be raised against the building are, we conceive, those that equally hold in the case of the Hôpital Lariboisiere, viz., expensiveness of construction and lavishness as regards space."

We are happy to report that Dr. Fred. Farre (of St. Bartholomew's), who has had a severe attack of pleuro-pneumonia, is making a good recovery.

GENERAL CORRESPONDENCE.

UNIVERSITY EDUCATION.

[To the Editor of the Medical Times and Gazette.]

SIR,—Your correspondent "Paterfamilias," in the course of what he must pardon me for calling his somewhat discursive letter, appears now and then to lose sight of the real question at issue, which is this,—Is an Oxford or Cambridge degree a good investment or not? He is inclined to think that it is not: you must take my judgment for what it is worth when I venture to uphold the contrary opinion. And in doing so I think it will be unnecessary to allege any other reason than the high value which continues to be set on these degrees by the judgment of the public. If they were as worthless as "Paterfamilias" appears to think, would not the public have found it out long ago?

The question of the price to be given for a certain thing is of course secondary in importance to the larger question, whether the thing is likely to give a return for the money paid for it? Thus an education may be very dear at £100, and comparatively cheap at £1000. I venture to assert that a university education pays, even at the high price which is sometimes given for it; it is no doubt true, however, that the same advantages might be supplied to students at a cheaper rate. How to do this,—how to make a cheap Oxford or Cambridge,—is a problem yet to be solved. Suffice it to say, that any Master of Arts in Oxford, and, I believe, also in Cambridge, is at liberty to open a private hall, in which he can fix his own scale of charges for students, and offer them all the advantages of the University at the cheapest possible rate. Some have tried the experiment, but none, I believe, have made it succeed. All, at least, sooner or later, give it up. If "Paterfamilias" or any other acquaintance of yours, Sir, will solve the problem for us plenty of private halls would no doubt be opened forthwith.

"Paterfamilias" says that the poor man has no chance at Oxford or Cambridge. Let him get some senior member of either University to go with him through the lists of its most distinguished men, and he will be surprised to learn how many have had a hard fight with poverty in their youth. Far from agreeing with him on this point, I boldly assert that there is no place in this country like Oxford or Cambridge for a poor man with brains. If he will point out any spot on the surface of this planet where a poor man without brains does not go to the wall, doubtless many would be glad to hear of it.

The degree in Arts is a certificate that a man has gone through a certain uniform course of study; after which, in the case of Oxford, the special studies of each man for his own profession have to be begun. At Cambridge, an indulgence, which I cannot but think an injurious one, is given to Medicine—men are allowed to take Medical degrees without having completed the course in arts; and the value of the Medical degree is thereby somewhat impaired. "Paterfamilias" very truly says that a man can be admitted into Holy Orders after his B.A. degree, with little or no special study for his profession. But he will hardly wish that the same plan should be adopted for Medicine. At all events, he must remember that the University does not ordain the men, and is not responsible for their competency, whereas it does give the Medical degrees, and is responsible for them. On this point, however, as I feel that I am treading on delicate ground, I must leave him to the theologians.

Again, he speaks of the colleges as if they were composed of high and mighty persons who have no interests in common with the crowd of students. Let me assure him that a great majority of the fellows, with whom the government of the several colleges rests, are sons of "persons of rather limited income;" that they nearly all have, among the students, plenty of relations, to whom they have no power, even if they have the will, to give any exclusive help; and that the fellowships as well as the other prizes are open to all alike, without favour or prejudice.

"Paterfamilias" is rather severe on the University examinations. As I am not a Cambridge man, I forbear answering him in detail; but I beg to assure him that from deficient information he has greviously misrepresented the case to himself as well as to you, Sir. I trust that as he becomes more familiar with the facts, he will be better pleased with his investment. I shall be happy to discuss the matter farther with him if he wishes it. I am, &c., A FELLOW.

Oxford, Nov. 14, 1864.

INTOXICATION.—RUPTURE OF THE LIVER.

LETTER FROM MR. JOHN FOSTER.

[To the Editor of the Medical Times and Gazette.]

SIR,—I forward you the following case, which is similar to the one reported by Dr. Wilson in your last week's journal, and which, I think, will show what extensive injuries may exist, and yet no symptoms, at first, be present to point to immediate diagnosis, or to lead us to a safe prognosis:—

While I was House-Surgeon to the Royal Free Hospital, a young woman was brought in by the police, at 10 o'clock in the forenoon, who stated that she had been run over by a cab.

She was much collapsed, and by smelling her breath it was evident she had been drinking freely. On examination there was a distinct mark over the abdomen, caused by the wheel of the cab; the ninth rib was fractured, and with the exception of the collapse and bruises there was nothing else to point to any other injury.

She recovered from the collapse in about two hours, and then became so violent that she was obliged to be held down. This violence was thought to be the effects of rum, of which she vomited up a large quantity.

This violent stage, however, gradually passed off, and left her quiet and sensible, but complaining of pain over the abdomen.

She walked from one ward to the other (about twenty yards), and when seen at 10 o'clock was fast asleep. The next morning she appeared better until 2 o'clock in the afternoon, when she complained of feeling ill and faint. Stimulants were given her, but she died at 4 o'clock.

Post-mortem.—The left lobe of the liver was torn right across, being attached by merely a small piece of membrane, and a very large clot of blood was found in the peritoneal cavity.

It is evident that this injury must have been caused by the cab passing over her body, as there was no other cause for it; for she was put under the care of a special nurse, and, with the exception of walking from one ward to another, she did not leave her bed, so that she could not have received any injury to have caused the rupture after her admission. This shows that persons may live some time with such an extensive injury as rupture of the liver and yet give no symptom of it at first. How are we to account for this? Was it that the collapse prevented the hæmorrhage taking place until reaction set in? This could hardly be so in this case, as she recovered from the collapse soon after her admission, and the next morning had a good pulse; or had the blood been all this time gradually escaping into the peritoneal cavity? No, for then she could not have lasted so long, and would not have recovered from the collapse. Or was it that the reaction which set in at first was not sufficient to permit the ruptured vessels to bleed, but that as soon as excessive or sufficient reaction did set in the blood was extravasated, and hence death ensued?

This case clearly shows what extensive lesions of an important organ may exist and no symptom be present on which to base a diagnosis, which, by its correctness, would enable us to give a trustworthy prognosis; and it further teaches us that we cannot be too careful in the mode of treatment we adopt, especially when we have an intoxicated person to deal with, whose condition may lead us in a false direction, as regards the nature and extent of any injury they may have received. I am, &c.

Huntingdon, November 14. JOHN FOSTER, M.R.C.S.

ON THE PRODUCTION OF AN INVERTED IMAGE BY A CONVEX LENS.

LETTER FROM MR. CRESSWELL.

[To the Editor of the Medical Times and Gazette.]

SIR,—Mr. J. Z. Laurence, in his lectures now publishing in the *Medical Times and Gazette*, assumes that the inverted landscape, apparent on holding a convex lens before the eye, is the image formed in the focus of the lens, and I am aware that he is borne out in that view by all our introductory works on optics; but, nevertheless,

Nullius addictus jurare in verba magistri,—

I think I can prove that such is not the case, and thereby remove some of those difficulties Mr. Lawrence finds in making theory accord with observation.

Since the eye is capable of bringing to a focus on the retina only parallel or slightly divergent rays, it must be at once apparent that it cannot do so with rays that, after crossing at

the focus to form the image, are widely divergent, and require either a convex lens placed at the sum of the focal distances of the lenses, or a concave at their difference to render them parallel, and therefore capable of focalisation on the retina, as in ordinary telescopes.

That it is not the focal image that we see may be easily proved—

Firstly, by observing that the eye must be placed at much more than ten inches distant from the principal focus to be able to see the inverted landscape, which then appears painted on the lens, not floating in the air, as it should do if it were the focal image.

Secondly, by placing an opaque screen at the principal focus, when the true focal image will be apparent on it, and will be found to be of much smaller proportions and much greater extent than what is seen on the lens itself.

Thirdly, by placing a small disc in the principal focus in front of the lens, when the landscape on the lens will be blotted out, and the magnified disc alone be visible, whereas the true image on the screen will only be rendered slightly weaker from obstruction of part of the light by the disc.

Fourthly, by substituting for the disc a perforated diaphragm, when the landscape on the lens will be again visible, but the image on the screen almost entirely effaced. What, then, is the explanation of the picture which we see on the lens? The experiment last detailed clears up the whole mystery. We see all those points of the landscape from which rays falling on the lens are rendered parallel by refraction through it; of course the rays must cross at the principal focus in front of the lens, and therefore produce an inverted picture; we, in fact, simply look through the lens.

I have hitherto, for the sake of simplicity, confined my remarks to convex lenses, but the same considerations (*mutatis mutandis*) apply equally to concave. We have only constantly to bear in mind that for normal eyes the rays must be parallel, or very slightly divergent, to be capable of being formed into an image on the retina. In presbyopic eyes, where the optic apparatus is not sufficiently powerful to bring rays which have a slight degree of divergence, as those emanating from an object ten inches distant, to a focus on the retina, we render them parallel by interposing a convex glass; and in myopic eyes, which can bring only divergent rays to a retinal focus, we render the parallel rays from distant objects divergent by interposing a concave glass.

A convex glass magnifies by refracting the divergent rays from a small object into a large bundle of parallel rays, which consequently forms a large image on the retina, and a concave glass, by refracting the convergent rays from many small objects, or a large surface, into a small bundle of parallel rays, which consequently forms a small image on the retina; and the mind has nothing to do with it in either case, except to take cognisance of the size of the retinal image.

This communication has extended to a much greater length than I intended, and I am afraid you will think me very prolix; but the importance of correcting a popular error, which stands at the very root of the ophthalmological branch of optics, and is evidently misleading one of our first lecturers on the subject, will, I hope, prove my excuse, and induce you to find room in your columns for this note.

I am, &c.

Winchmore-hill, Nov. 2. JOHN CRESSWELL.

"FOUNDER'S DAY" AT THE ROYAL MEDICAL BENEVOLENT COLLEGE, EPSOM.—This eventful day, deferred from the rightful one in consequence of sickness in the school, was celebrated on Wednesday last, the 16th inst., Sir Thomas Phillips, in the absence of the Lord Bishop of Winchester, presiding. In distributing the prizes, which were numerous and well selected, Sir Thomas addressed each boy with some most appropriate observations; and especially in giving the Bible prizes, the "Sterry," and the "Carr," remarking that in the present day no knowledge was more valuable than scriptural, which best fitted for the present as well as the future life; and that the more religion and sound science went together the more harmony would be found to exist between them. The Chairman also commended the wisdom of giving prizes for the modern languages, physical science, etc., etc., in addition to those for classics and mathematics. The appearance of the boys, numbering more than 200, is most satisfactory, and calculated to inspire confidence in all who are interested in the success of this valuable institution. The Founder and the Council were present to support the Chairman, whose labours were most successful.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 8.

RICHARD PARTRIDGE, Esq., F.R.S., President.

DR. ROBERT LEE read a paper

ON THE NERVOUS STRUCTURES AND THE ACTION OF THE HEART.

Galen affirmed that the heart has no nerves, and that it is not a muscular organ. Vesalius, Realdus, Columbus, and Cæsalpinus adopted these opinions. The cause of the motion of the heart, or the source of its sensitive and contractile power, has engaged the attention of the most profound anatomists and physiologists ever since the discovery of the circulation of the blood. Harvey considered the motion of the heart to be muscular. Three years after the death of Harvey the Royal Society was constituted by Charles II. a corporate body, "for the promoting of the knowledge of natural things and useful arts by experiments to the glory of God and the good of mankind." Anatomy and physiology were then considered two of the most important branches of knowledge to which the fellows could direct their attention, and at no period since have they ceased to be viewed in the same light. The doctrine of the circulation of the blood was then almost universally admitted, but the cause of the action of the heart had not been discovered by Harvey; and during the last two centuries the most eminent Medical philosophers have been engaged in the investigation of the subject, and the *Transactions* of the Royal Society of London have contained the results of their most important researches. In 1670, a paper by the Hon. Robert Boyle, entitled, "On the Motion of the Separated Heart of a Cold Animal in the Exhausted Receiver," was published in vols. iv. and v. An analysis of Dr. Lower's treatise, "De Corde item de motu et Colore Sanguinis, etc.," was published in 1669. A Discourse by Dr. Drake concerning some Influence of Respiration on the Motion of the Heart was published in vol. xxiii. A discourse on the Power of the Heart, addressed to Dr. Mead by Dr. Jurine, was published in vol. xxx., and a letter in defence of the Doctrine of the Power of the Heart against the objections of Dr. Keil. Vol. xli. contains a short account of Dr. A. Stewart's paper concerning the Muscular Structure of the Heart. Dr. Mortimer Borelli computed the motive power of the heart to be equal to 3000 pounds. It is impossible, says the author, to tell how many Croonian lectures have been read before the Royal Society on muscular motion and the heart's action. Mr. J. Hunter read six between 1776 and 1782. In 1790 one was read by Sir Gilbert Blane, and twelve by Sir Everard Home between 1795 and 1828, and two by Sir A. Carlisle in 1806 and 1808. In 1808 one was read by Dr. Thomas Young; in 1811 one by Mr. B. C. Brodie. Le Gallois' work was published in 1815, and the same year a paper was published in the *Philosophical Transactions* by Dr. Wilson Philip, entitled, "Experiments made with a view to ascertain the Principle upon which the Action of the Heart depends, and the Relations which subsist between that Organ and the Nervous System." In 1815 a paper was published by Mr. Clift, entitled, "Experiments to ascertain the Influence of the Spinal Cord on the Action of the Heart in Fishes." After all these elaborate researches had been made, the cause of the heart's action, one of the most difficult problems in physiology, remained unsolved. It does not appear that any of these anatomists and physiologists made an attempt to discover to what extent the heart is endowed with nervous structures, and whether the action of the heart could not be referred to the influence of these structures, independent of the brain and spinal cord. Haller, Wrisberg, Soemmering, and other anatomists who lived about the middle and towards the close of the last century, affirmed that the action of the heart did not depend upon nervous influence, but on an unknown hypothetical principle which they called irritability. This, they said, was the cause of muscular action in all parts of the body. In 1791 or 1792 B. J. Behrends, a pupil of Professor Soemmering, published a treatise, entitled, "Dissertatio Inauguralis qua Demonstratur Cor Nervis Carere." In 1794 Scarpa's work, "Tabulæ Neuralogicæ ad Illustrandam Historiam Anatomicam Nervorum Cardiacorum," was published. It contains four engravings of the human heart, and if these be

examined it will be seen that branches of nerves have been represented accompanying the coronary arteries, as in the engraving of Behrends, but few, if any, passing into the muscular substance of the heart. In Mr. Swan's magnificent work, published in 1830, only a few small branches of nerves have been represented, which accompany the coronary arteries, and the muscular substance of the heart is represented as almost completely destitute of nerves. In 1839 M. Remak stated that he had discovered in the human heart small ganglia on the filaments of the cardiac nerves, as they ramify on the substance of the heart. In the engraving which accompanies M. Remak's paper the heart is represented as almost totally destitute both of ganglia and nerves, as in the engravings of Behrends. It is impossible to deny that at this time and in 1844 the nervous system of the heart remained undiscovered, and the cause of the heart's action unexplained. The discovery of the ganglia and nerves of the uterus on April 8, 1838, led by an extraordinary and unexpected route to the discovery of the ganglia and nerves of the heart in September, 1846, by which the problem of the heart's action was finally solved. The author then states the four conclusions which he was enabled to deduce from his dissections, and states that, in compliance with the request of a member of the Council, the preparations which warrant these conclusions had been placed upon the table of the Society.

Mr. Shaw said that the Society must be impressed with admiration at the zeal with which Dr. Lee had worked at the anatomy of the nerves of the uterus and heart. One point of great importance as regarded these nerves was the relative proportion of fibres received from the vagus and the sympathetic; but Dr. Lee had not said anything on this point. It was one most difficult to determine, as the fibres from these sources combined. This part of the subject had, Mr. Shaw said, been pursued with great success by Dr. Pettigrew, who had adopted a peculiar method in dissections—viz., the employment of ether, which dissolved out the fat.

Dr. Lee said there can be no doubt about the origin of the cardiac ganglia and nerves: they all arise from the great sympathetic and par vagum. From the second cervical ganglia of the great sympathetic, branches pass down to the heart, and there proceed to the base between the pulmonary artery and aorta, where the great ganglionic plexus is formed which was first described by Fallopius. Into this great ganglionic plexus branches pass from the par vagum, and all the ganglia and nerves distributed over the surface and throughout the walls to the lining membrane of the heart take their origin in this great plexus, to obtain a complete view of which it is necessary to cut away the pulmonary artery at its origin. All this, he said, could be seen in the first dissection which he ever made of the ganglia and nerves of the heart of a child. But the light of that room was not favourable, he said, for such an examination. The proper time is the morning, soon after the sun has risen, when the atmosphere is clear; and this is the only time when a minute dissection of these nervous structures can be made. This heart was removed from the body of a child aged 6 years, who died from disease of the brain in St. George's Hospital. The blood was first removed by immersing the heart for several days in pure water. It was then placed in a shallow porcelain dish and covered with strong alcohol. With the help of a dissecting lens which magnified six diameters, he (Dr. Lee) proceeded—with a pair of small forceps in his left hand and a curved needle in his right, or a pair of small curved forceps—to remove the layer of the pericardium covering the heart and the fascia beneath it, and the fat. A plexus of ganglia and nerves soon came into view; it was impossible to mistake them for anything else. He then proceeded to remove the whole pericardium from the base to the apex, and had the great satisfaction of seeing the whole surface of the heart covered with ganglia and nerves. They were traced backwards, and were found to pass between the pulmonary artery and the aorta. The former being cut away, the whole cardiac system of ganglia and nerves was brought into view. If the preparation were examined, they would all be visible even in that unfavourable light. An elaborate drawing was made of these ganglia and nerves by Mr. West, the eminent artist so long employed by Mr. Swan, and an engraving made which has been published in the *Philosophical Transactions*. This woodcut has been made from the engraving exhibited. All the ganglia and nerves here displayed are continuous with the great sympathetic and par vagum.

Mr. Solly said it would be interesting to know how long Dr. Lee had been at work. Years ago that gentleman had submitted specimens to him to obtain his opinion as to whether certain tissues of the uterus were nerves; he then had no hesitation in saying that they were. Recently he had seen fresh preparations by Dr. Lee of the nerves of the heart. Mr. Solly spoke in warm terms of the beauty of these preparations.

Dr. Lee said he would answer Mr. Solly's question by reading the following extract from his journal:—"I had often put this question to the most distinguished anatomists and physiologists—From what source does the heart derive its sensitive and contractile power? but no satisfactory answer was ever received. I urged several anatomists to undertake the investigation of the nervous structures of the heart, and assured them that if they did so their labour would not be lost. At last I prevailed upon one gentleman to undertake the task. When a year had elapsed I went to see what progress had been made, and found that he was just on the point of commencing—of breaking ground: the serous membrane had not been removed from the human heart. On the 23rd of April, 1846, an accidental circumstance occurred which made me determine to undertake the labour myself. On that day I went into the library of the Royal Society, where I found the President (the Marquis of Northampton), Dr. Todd, of King's College, and Mr. Simon. A warm discussion immediately commenced respecting the nervous structure of the uterus, when it was asserted by Dr. Todd that the heart had few or no ganglia and nerves, and therefore that the uterus did not require such ganglia and nerves as I had described and represented in the *Philosophical Transactions*. I inquired of Dr. Todd if he had ever dissected the nerves of the heart, and the reply was that he had never done so; but in support of the truth of what he had affirmed I was referred to the plates of Scarpa and Swan, in which the muscular structure of the human heart is represented as almost entirely destitute of nerves, from which it might be inferred that the action of the heart did not depend upon nervous influence. Having procured the heart of a child six years of age that had died of disease of the brain in St. George's Hospital, and having removed all the blood by immersion in water, it was covered with strong alcohol; and on September 12, 1846, I proceeded with these small forceps and needles, and this dissecting lens, magnifying six diameters, to see what could be determined. In a few hours, the serous membrane being removed, there were seen numerous branches of nerves with ganglionic enlargements, wholly unconnected with the coronary arteries, ramifying on the surface, and plunging into the muscular substance of the heart. These were traced to the base, and found to terminate in a great ganglionic plexus, situated between the pulmonary artery and aorta, into which branches from the par vagum, recurrent, and sympathetic entered. In the evening I showed these ganglia and nerves to Mr. Wharton Jones, and begged him to compare them with the plates of Mr. Swan. He saw the whole surface of the left ventricle, from the base to the apex, covered with an immense plexus of ganglia and nerves. It was now obvious that the ganglia and nerves of the heart had been overlooked by anatomists as those of the uterus, and that no argument against the existence of the ganglia and nerves of the uterus, which had been demonstrated to exist, could be drawn from the assumption that the heart had no ganglia and few nerves."

The President inquired if all the dissections upon the table had been made in the same manner.

Dr. Lee replied that they had all been made in the same manner, that the preparations had been made while covered with strong alcohol, and that the lens magnifying twelve diameters was never employed unless the ganglia and nerves could not be completely cleared of the cellular membrane and fat in which they were embedded. You can no more make out the ganglia and nerves of the heart without a lens than you can make out the satellites of Jupiter without a telescope. But more is required; if the preparation is not covered with alcohol while the dissection is going on, the ganglia and nerves cannot be displayed. An eminent anatomist had refused to examine these dissections when covered with alcohol, and affirmed that all the ganglia and nerves here displayed are absorbents. Of course it was impossible to do anything with him; there was no hope of coming to any agreement with him. It was from the analogy between the structure and functions of the uterus and heart that he (Dr. Lee) arrived at the conclusion that the heart must be endowed with a system of ganglia and nerves similar to those of the uterus, and he felt the greatest desire to know whether the nerves of the heart would enlarge with hypertrophy like the nerves of the gravid uterus. This great truth was brought to light by the examination of an

enormously hypertrophied heart presented to him by Dr. Nairne. It has since been called Dr. Nairne's heart, and he has gained immortality by it. Here is the preparation, and a most beautiful delineation of it by Mr. West. This was the great point he (Dr. Lee) was determined to make out, that the ganglia and nerves of the hypertrophied heart enlarge like those of the gravid uterus. He had placed upon the table preparations of the ganglia and nerves of the virgin uterus and of the gravid uterus in the ninth month. Would any one venture to step forward and deny that the ganglia and nerves of the uterus enlarge during pregnancy? If these preparations of the nervous structures of the virgin uterus were examined, the great ganglia on the sides of the neck of the uterus, in which the hypogastric and sacral nerves terminate, would be clearly seen, and if these were compared with the same ganglia in the gravid uterus of nine months, it would be seen that they were enlarged in proportion to the enlargement of the organ. Dr. Lee concluded by passing a severe sentence of condemnation on certain members of the Council of the Royal Society, and the referees whom he named, in his first paper on the "Nervous System of the Heart," for publishing a secret and confidential report in certain Medical journals, stating that no such ganglia and nerves as those he had described, and Mr. West represented, existed. Anonymous letters were written and published, asserting that he had attempted to practise an imposition, for which he ought to be expelled from the Society. This report was not founded upon the preparations, but upon a strange story invented by a person who remained concealed seven years behind the scenes. The ground being cleared by the forcible removal of the offending President and Secretary, another paper was presented, another referee appointed, and this paper was published in the *Philosophical Transactions*, with engravings, in 1849. "Here is the paper," said Dr. Lee, holding it up to the President. "Opposition, foul or fair, is in the end most advantageous; it is a powerful spur to the exertion which insures success after years of toil." Since the publication of this paper he had continued, he said, at intervals to prosecute the investigation with increased energy, and the entire results are placed before the Society. It is now demonstrated by evidence which cannot be contradicted that the heart is endowed with a great system of ganglia and nerves, which had never been before described or delineated in the works of any anatomist.

A paper, by Dr. George Duncan Gibb, was read on a

REMARKABLE INSTANCE OF A GROWTH, SPRINGING FROM THE EPIGLOTTIS, WHICH WAS SUCCESSFULLY REMOVED WITH THE AID OF THE LARYNGOSCOPE.

Although the pathology of the epiglottis has been much enriched since the revival of the laryngoscope, tumours of the cartilage were very uncommon. This was proved by inspection of the museums of London and elsewhere, together with the author's own experience. Such instances as had existed involved the laryngeal surface of the cartilage, and were chiefly warty vegetations; and the same surface was affected by the mucous cyst in Mr. Durham's recent case. The author now contributed an instance wherein a large growth sprang from the lingual surface of the cartilage, with the object of adding to our knowledge of its pathology, aiding diagnosis, and showing what might be done under the most urgent circumstances. The patient was a lady of 60 years of age, the wife of a clergyman, who had suffered from a throat affection for two years, the symptoms simulating malignant stricture of the œsophagus, with more or less constant dysphagia and expectoration of blood and mucus, associated with severe pain. Matters had been getting worse for the last twelve months. On examination in July last, she was pale and wan, emaciated, spoke in a low, thick, gutteral tone, had complete dysphagia with fluids, and could swallow a little farinaceous food or an egg. Fluids always passed through the nostrils. She had no dyspnœa unless when lying on her back at night, but never in the daytime; coughed and expectorated mucus, at times frothy or thick and stringy, and sometimes mixed with blood. With the laryngoscope, a roundish, prominent, and projecting tumour, of the size of a small walnut, was seen occupying the position of a pendant epiglottis, which during the act of swallowing became elevated, and could be seen by the unaided eye at the back of the mouth pressing against the pharynx. The epiglottis itself was not seen, nor the interior of the larynx; but the posterior margins of the arytenoid cartilages could be observed. It seemed as if the tumour, partly divided by an antero-posterior sulcus, grew from the lingual surface of the epiglottis. It was red and vascular in some parts, white in others, eroded, and giving rise to free expectoration of mucus and oozing of blood. Believing that the entire cartilage was involved in the disease, the author's intention was to remove the whole mass, including all the free portion of the epiglottis and trust afterwards to nature to so contract the larnygeal orifice as to permit swallowing without inconvenience, as had happened to him in other cases where the free portion of the cartilage had been destroyed by ulceration. On the 7th of July the thick loop of wire of an improvised écraseur was passed around the base of the tumour, and, on the second introduction, it was drawn home, and quickly detached the growth; and at the same instant, it was seized by Mr. Ure at the back of the mouth with vulsellum forceps, and extracted. Chloroform was not administered, the lady having sat on a chair in front of the author, the tongue being held outwards by Dr. Logan. There was little bleeding, and it was found that the lingual surface of the epiglottis had been separated from the growth as cleanly as if dissected with a scalpel. The subsequent progress was most satisfactory: the character of the voice improved, and swallowing now became quite easy, and has continued so to the present time, although occasionally there is a little sanguineous expectoration from the throat. The tumour was soft and spongy, and, on microscopic examination by Dr. Andrew Clark, was pronounced to be unquestionably benign, in its present condition a connective tissue, and would have become most probably a fibro-cartilaginous growth. In a general commentary upon the case, the author believed that the growth had become moveable, with a sulcus running transversely behind, which permitted of its fortunate removal without injury to the epiglottis itself.

UNIVERSITY OF CALCUTTA.—FACULTY OF MEDICINE.

(*From a Correspondent.*)

The University of Calcutta has recently promulgated new regulations for graduation in the Faculty of Medicine. The accompanying copy of the revised regulations, which have received the sanction of Government, will abundantly demonstrate that the Bengallie Medical student is not, or should not be, behind his European fellow-student in the extent of his studies.

As the students of the Medical College of Calcutta (the only recognised Medical College of the Calcutta University in the Bengal Presidency) do sometimes proceed to England with the view of prosecuting their studies there, and of imbibing European ideas in Europe, it is well that some idea should be given of their position as Medical students and graduates of their own University.

The Medical College of Calcutta is to this University exactly what King's or University Colleges, in London, are to the London University. At present it is the only one, and is thriving admirably; but it is to be hoped that ere long other affiliated colleges will arise in the North-West and other parts of India.

Faculty of Medicine, University of Calcutta, 1864.

President and Member of Syndicate.

J. Fayrer, M.D., F.R.S.E.

Members.

F. J. Mowat, M.D.	S. G. Chuckerbutty, M.D.
E. Goodone, M.B.	T. Anderson, M.D.
J. Mepherson, M.D.	J. M'Clelland, Esq.
N. Cheners, M.D.	A. C. Macrae, M.D.
S. B. Partridge, Esq., FRCSE	H. Mepherson, Esq.
F. N. Macnamara, M.D.	Chunder Coomar Dey, M.D.

The Medical qualifications are of two sorts, licenses and degrees, of which the latter require longer and fuller study. The following are extracts from the Regulations:—

First Licentiate Medical Examination.

Any undergraduate of the University who can produce certificates to the following effect may be admitted to this examination:—

a.—Of having completed his nineteenth year.

b.—Of having been engaged in Medical studies for three academical years after passing the Entrance examination.

c.—Of having attended the following courses of lectures at a School of Medicine recognised by the Syndicate:—

Two Courses of Seventy Lectures.—Descriptive and Surgical Anatomy; Chemistry; Materia Medica; General Anatomy and Physiology.

One Course of Forty Lectures.—Botany.

One Course.—Practical Chemical Exercises in testing the nature of ordinary poisons, and in examination of animal secretions and urinary deposits.

d.—Of having studied Practical Pharmacy for three months, and of having acquired a practical knowledge of preparation and compounding of medicines.

e.—Of having dissected during three winter terms, and of having completed at least twelve dissections in each term.

The examination shall be written, oral, and practical.

Every candidate shall be examined in the following subjects: — Descriptive and Surgical Anatomy; Chemistry; Botany; Materia Medica and Pharmacy; General Anatomy and Physiology.

Practical Chemistry, so far as regards the testing of the presence and nature of ordinary poisons, and the examination of animal secretions and urinary deposits.

Second Licentiate Medical Examination.

Any candidate who can produce certificates to the following effect may be admitted to this examination :—

(*a*) Of having passed the First Licentiate Medical Examination at least two years previously.

(*b*) Of having, subsequently to passing the First Licentiate Medical Examination, attended the following courses of lectures at a school of Medicine recognised by the Syndicate :—

Two Courses of Seventy Lectures.—Medicine (including Hygiene and General Pathology); Surgery; Midwifery.

Two Courses of Fifty Lectures.—Medical Jurisprudence.

One Course of Twenty Lectures.—Diseases of the Eye.

(*c*) Of having, subsequently to passing the First Licentiate Medical Examination, dissected the Surgical regions, and performed Surgical operations during two winter sessions; the certificate to state the number and nature of the operations so performed.

(*d*) Of having conducted at least six labours.

Certificates on this subject will be received from any legally qualified Practitioner in Medicine.

(*e*) Of having attended Hospital and Dispensary Practice during the last three academic years of study in the following manner, viz. :—

Three months of attendance at the out-door Dispensary of a recognised Hospital.

Fifteen months of attendance at the Surgical Practice of a recognised Hospital, and lectures on Clinical Surgery during such attendance.

Fifteen months of attendance at the Medical Practice of a recognised Hospital, and lectures on Clinical Medicine during such attendance.

Three months of attendance at the practice of an Eye Infirmary.

(*f*) Of having drawn up, in his own handwriting, six Medical and six Surgical cases during his period of service as clinical clerk or dresser.

(*g*) Of general character and conduct from the Principal of the College or School of Medicine at which he has studied.

Every candidate shall be examined in the following subjects : —Principles and Practice of Medicine; Principles and Practice of Surgery; Ophthalmic Medicine and Surgery; Midwifery; Medical Jurisprudence; Practical Toxicology.

The Clinical Examination shall be conducted in the wards of a Hospital.

Every candidate shall be required—

To examine, diagnose, and treat cases of acute or chronic diseases, to be selected by the examiners; and to draw up careful histories of the cases; also, if required, to perform and report in detail necroscopical examinations of any of the selected cases that may have died in Hospital.

To apply apparatus for great Surgical injuries, and explain the objects to be attained by them, as well as the best manner of effecting those objects.

To examine, in presence of the examiners, morbid products chemically and by the aid of the microscope, demonstrating the results obtained.

To perform capital operations upon the dead subject, after detailing to the examiners the pathological conditions in which such operations are necessary, the different modes of operation adopted, and their reasons for preferring any particular mode of procedure.

For the first M.B. examination, the lectures, etc., required are the same as for the first L. M. examination, with the addition of one course of forty lectures on Comparative Anatomy and Zoology, and a *Preliminary Degree in Arts.* The second M.B. examination is analogous also to the second L.M.

Doctor in Medicine.

Any Bachelor in Medicine may be admitted to this examination, provided he can produce certificates to the following effect :—

(*a*) Of having been admitted to the degree of Bachelor of Arts.

(*b*) Of having, subsequently to passing the M.B. examination, completed :—

Five years of certified practice of the Medical Profession, or

Two years' Hospital practice and two years' private practice, or

Two years' practice, either Hospital or private, if the candidate be a Graduate in Medicine with honours.

(*c*) Of good moral character, signed by two persons of respectability.

A fee of 100 rupees shall be payable by each candidate. No candidate shall be admitted unless he shall have paid this fee to the registrar. A candidate who fails to pass, or present himself for examination shall not be entitled to claim a refund of the fee. A candidate may be admitted to one or more subsequent examinations on payment of a like fee of 100 rupees on each occasion.

The examination shall be written, oral, and practical.

Every Candidate shall be examined in the following subjects : — Medicine, including the practice of Physic; Surgery; Midwifery; Hygiene, and Pathology.

As soon as possible after the examination, the Syndicate shall publish a list of the successful candidates, arranged in alphabetical order.

Any candidate who is not a Bachelor in Medicine may be admitted to the examination for the degree of Doctor in Medicine, on producing certificates to the following effect : —

(*a*) Of having passed the senior diploma examination of the Medical College or the Licentiate examination in Medicine and Surgery of the University.

(*b*) Of having attained the age of 35 years.

(*c*) Of having practised the Medical Profession with repute for five years.

(*d*) Of fitness moral and social for the degree.

(*e*) Of having passed the B.A. examination; Latin having been one of the languages in which he was examined, or

The following preliminary examination for those candidates only who had completed their Medical education in or before the session of 1859 :—

English.—Subjects of examination shall not be appointed, but the answers of the candidates in all subjects must be such as to show a competent knowledge of the English language.

Mental and Moral Science.—Mental Science; as contained in Abercrombie on the Intellectual Powers. Moral Philosophy; —as contained in Payne and Abercrombie.

These Regulations are interesting as showing the views of practical men who have a clear field to start upon, unencumbered by vested interests. It will be seen that they allow, or rather require, the student to get rid of the elementary and preparatory subjects before beginning practice.

We subjoin the numbers of candidates and of those who have passed during the last four years. The M.B. is a *new* grade.

Number of Candidates at University Examinations, and the number Passed in each Year since 1861.

	Licentiate in Medicine and Surgery.				Doctor of Medicine.	
	First Examination.		Second Examination.			
	No. of Candidates.	No. Passed.	No. of Candidates.	No. Passed.	No. of Candidates.	No Passed.
1861	16	7	20	14	—	—
1862	33	18	17	7	1	1
1863	35	16	19	14	2	2
1864	44	18	—	—	—	—

French Medical Students in 1864.—As in our own country, the number of students entering the Profession is undergoing diminution, doubtless in consequence of an enlarged sphere of more eligible and lucrative occupations. The number of inscriptions from November, 1862, to July, 1863, amounted to 4307; while those from November, 1863, to July, 1864, only reached 4167, showing a diminution of 142. The new students have also diminished from 357 in 1863 to 327 in 1864. There are about 100 foreign students who do not make regular inscriptions.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such on the 10th inst. :—

Jonathan Henry Kimbell, Knowle, Warwickshire, Diploma of Membership dated November 11, 1842; William Cook Russell, Doncaster, April 22, 1833; Edwin John Waring, H.M. Indian Army, March 18, 1842; Charles Pooley, Weston-super-Mare, May 2, 1842.

The next Examination for the Fellowship will take place on the 22nd inst. and two following days.

The following gentlemen, having undergone the necessary Examinations for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 15th inst. :—

John Lowe Price, Wrexham, Sedley Wolferstan, L.R.C.P. Lond., Plymouth, Alfred Square Cooke, Gloucester, John Astley Bloxam, Russell-square, and Edward Bryan, L.S.A., Frisby-on-the-Wreake, Leicestershire, students of St. Bartholomew's Hospital; George Edmund Legge Pearse, L.S.A., Regent-street, Westminster, Frederick Pooley Edis, M.B. Univ. Lond., Huntingdon, and Dudley Howe Ryder, L.S.A., Greenwich, of the Westminster Hospital; Philip Burnard Chenery Ayres, Bedford, George Jackson, Plymouth, and Archibald Henry Foley Cameron, Edinburgh, of University College; Joseph Groves, L.S.A., Newport, Isle of Wight, and Richard Hake Bush, York-terrace, Regent's-park, of King's College; Albert Waymouth, H.M. Dockyard, Deptford, and William Follitt Montague Laidman, Exeter, of the Middlesex Hospital; John Elliot, Stratford, Essex, of the London Hospital; Charles Edward Saunders, Clapham, of St. Thomas's Hospital; James William Smith, Whitley, of Guy's; Thomas Wimpenny Green, M.D. Glasgow, L.S.A., Rawtenstall, Lancashire; Thomas Davies, Abergele, N. Wales; David Wright, Edinburgh; Daniel Hudson, Rocester, Staffordshire; Albert John Clapp, M.D. Queen's Univ. Ireland, Cork.

On the 16th instant:—

Henry Dawson, L.S.A., Church-road, Islington, John Cornelius Dwyer, Woolwich, Edward Coldridge Roberts, Exeter, and John George Frederick Wilford, Brompton, Yorkshire, students of Guy's Hospital; Thomas Rigg, M.D. Univ. Edin., Carlisle, John Oliphant, M.D. Univ. Edin., and L.R.C.P. Lond., Edinburgh, and Samuel Scott McMillan, Bolton, Lancashire, of Edinburgh; John Hogan Quin, Dublin, and Henry Reginald Hatherly, Derby, of the Westminster Hospital; Robert Arthur Jones, Carnarvon, and Thomas Wilson Corbin, L.S.A., Hornsey, of St. Bartholomew's Hospital; George William Rigden, Canterbury, and William Vicary Snow, Barnstaple, of University College; Robert John Scott, C.M. Univ. Aberd., and L.S.A., Omagh, of St. Thomas's Hospital; Robert Farrar Bridesake, Leigh, Lancashire, of King's College; John Craigie, Hackney, of the London Hospital; Jordan Roche Lynch, Notting-hill, of St. Mary's Hospital; William Pogson, Seacroft, near Leeds, and Albert Octavius Haslewood, Darlington.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise, on Thursday, November 10, 1864 :—

Frederick Powell, Westminster Hospital; Robert John Scott, St. Thomas's Hospital; Llewellyn Powell, St. Bartholomew's Hospital.

As an Assistant :—

Adam Dawson Joss, 57, Cannon-street-road.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ANDERSON, J. F., M.D., has been appointed Physician to the Farringdon General Dispensary and Lying-in Charity, Bartlett's-buildings, Holborn.

BAGSHAWE, FREDERIC, M.A., M.B., has been appointed Physician to the Western General Dispensary, Marylebone-road.

BRODIE, Sir BENJAMIN C., M.A., F.R.S., has been appointed one of the Examiners in Medicine at the University of Oxford.

CHAMBERS, THOMAS KING, M.D. Oxon., has been appointed one of the Examiners in Medicine at the University of Oxford.

DIXON, THOMAS, M.D., has been elected Physician to the Metropolitan Convalescent Institution, Sackville-street.

DUKE, ALLEN, M.D. St. And., has been elected Consulting Surgeon to the Chichester Infirmary.

KING, THOMAS W., M.D. St. And., has been appointed Medical Officer to the Camberwell Provident Dispensary.

LATHAM, PETER W., M.B. Cantab., has been appointed Examiner in Chemistry and Zoology in the Cambridge University Local Examinations, and Assistant-Examiner to the Regius Professor of Physic and the Professor of Mineralogy.

OGLE, JOHN W., M.D. Oxon, has been appointed one of the Examiners in Medicine at the University of Oxford.

ROLLESTON, GEORGE, M.D. Oxon, has been appointed one of the Examiners in Medicine at the University of Oxford.

SMITH, HENRY J. S., M.A., F.R.S., has been appointed one of the Examiners in Medicine at the University of Oxford.

WARBURTON, J. W., M.R.C.S. Eng., has been appointed Resident Medical Officer to the County Asylum, Lancaster.

WILLIAMS, W. H., M.D. Lond., has been elected Medical Officer to the Sherborne Union Workhouse.

DEATHS.

ANDREWS, Rev. WILLIAM, M.D., at Green-street, Grosvenor-square, on November 8, aged 54, rector of Postwick, Norfolk.

HARRISON, PHILIP, Surgeon, late of Diss, Norfolk, on November 1, aged 64.

JONES, THOMAS WALTER, M.D. Edin., at Canada, on October 28.

M'EWEN, WILLIAM, Surgeon, at Glasgow, on November 6, formerly of Rothesay, N.B.

PRICE, PETER CHARLES, F.R.C.S. Eng., at Ventnor, on November 13, aged 31, late of Green-street, Grosvenor-square.

ROWLAND, RICHARD, Surgeon, at Weston-Zoyland, Bridgewater, on October 19, aged 72.

SEAGRAM, W. FROWD, F.R.C.S. Eng., at Warminster, Wilts, on November 8, aged 88.

SPEEDY, ROBERT D., L.R.C.S.I., at Gardiner's-place, Dublin, recently.

OXFORD.—Dr. Jackson, Dr. Acland, Dr. Rolleston, and Dr. Child have been elected Commissioners under the Local Government and Public Health Acts, which have been adopted by the University and City.

THE LAVIES TESTIMONIAL DINNER.—We beg to remind our readers of this dinner, advertised for Wednesday next, the 23rd, at Freemasons' Hall. We hear a large and influential muster of the Profession is expected. Amongst other notables, John Brady, Esq., M.P., J. Tidd Pratt, Esq., R. Lush, Esq., Q.C., Dr. Copland, John Erichsen, Esq., H. Hancock, Esq., etc., etc. We believe that a large number of his Professional brethren will testify on this occasion their sense of Mr. Lavies' services. We know that he was the subject of much annoyance, which he willingly underwent in the interests of the Profession.

DONATIONS AND LEGACIES TO MEDICAL CHARITIES.—The sum of £4000 has just been presented to the Devon and Exeter Hospital by Mr. J. C. Bowring, of Larkbeare, Exeter, eldest son of Sir John Bowring. The income arising from this handsome donation is to be expended in keeping up a ward for infants under seven years of age, and in furtherance of the wishes of the late Mrs. Bowring, wife of the generous donor. By the death of the late ex-Provost Johnston, a number of munificent legacies have fallen to the local charities of Arbroath, not forgetting the Medical institutions, as the funds of the Infirmary have been increased by the addition of £1000, with an additional £300 from Mrs. Johnston; the Dundee Infirmary, £400; and to Baldovan Asylum for Imbecile Children, £400.

THE ZOOLOGICAL SOCIETY.—The Zoological Society's collection of quadrumana has just been increased by the addition of a very fine young female chimpanzee, which arrived in this country by the last West African mail. The chimpanzee has been placed in the new monkey-house in the same compartment as the female orang, which has been more than six months in the society's collection, and the two animals seem likely to become great friends. This is, we believe, the first occasion on which both the Asiatic and African forms of the anthropoid apes have been exhibited side by side, so as to allow of a comparison of their mutual resemblances and differences.

THE PARIS FACULTY OF MEDICINE, 1864-5.—The following are the courses of lectures to be delivered in the Winter Session 1864-5, with the names of the Professors :—Medical Physics, Gavarret; General Pathology and Therapeutics, Axenfeld, in place of Audral; Anatomy, Jarjavy; Medical Chemistry, Wurtz; Operations and Apparatus, Duchaussoy, in place of Malgaigne; Medical Pathology, Monneret; Surgical Pathology, Denonvilliers; Histology, Robin; Clinical Medicine, Bouilland, Guillot, Piorry, and Grisolle; Clinical Surgery, Jobert, Laugier, Velpeau, and Nélaton; Clinical Midwifery, Dépaul; Diseases of Children, Roger; Mental and Nervous Diseases, Lasègue; Diseases of the Urinary Organs, Voillemier; Ophthalmology, Follin.

SHORTSIGHTEDNESS IN BAVARIAN SCHOOLS.—The Bavarian Minister of Instruction has issued a circular to schools respecting the increasing prevalence of short sight among the scholars. He says that the Government has been much struck with the great increase in the practice of using spectacles among the young persons who leave the seminaries and other educational establishments. An investigation has shown that many of the school-rooms are very insufficiently lighted, and to this in a great measure is the increase of this visual defect attributable. Instructions are, therefore, now given that the condition of all educational establishments, whether private or public, shall be carefully examined into in this respect, so that, when defective, remedies may be applied, while in all future constructions of this kind the free admission

of sufficient light in a suitable direction must be especially attended to. Unsuitable spectacles are to be stringently forbidden in schools, and the use of glasses at all is only to be permitted when their necessity has been duly certified by Medical authority.

POISONED BY TOBACCO JUICE(?)—A young man at Clitheroe died last week somewhat suddenly, with all the symptoms of having been poisoned. His pulse was quick and feeble, his eyes dilated and insensible to light; the heart was perfectly paralysed, his muscles rigid, and he was unable to swallow. This was his condition before death. The coroner ordered a post-mortem examination of the body to be made by Dr. Scott, of Clitheroe. He found the vessels of the brain swollen and filled with black blood, together with extravasation of blood in the ventricles of the brain. "These appearances," he deposed, "led me to conclude that the deceased had taken some narcotic poison, as we find them in persons having taken opium. I attribute the appearance of the blood-vessels on the brain to narcotic poison. The deceased was very much emaciated. After hearing all the evidence I attribute the cause of his death to the chewing of Limerick roll tobacco and his having swallowed the juice. It is a kind of poison that acts on the brain, and is an irritant and compound poison. It is not used in medicine now. I should not like to give a person 30 grains of the unprepared tobacco. Tobacco gains power according to the way in which it is manufactured, and the Limerick roll is exceedingly strong tobacco." The coroner summed up, and the jury returned a verdict "That the deceased died from the effect of having chewed Limerick roll tobacco and swallowing the juice thereof, which has acted upon the stomach as a narcotic poison."

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The annual meeting of the members of this Society was held on October 26, in pursuance of the Royal charter of incorporation recently granted, when a letter from the Rev. Arthur Stone was read, acknowledging a letter of condolence addressed to him by the Society on the demise of his father, their late President, Thomas Arthur Stone, Esq. The following officers and directors were elected for the ensuing twelve months, viz.:—*President*—Martin Ware, Esq. *Vice-Presidents*—Everard A. Brande, Esq., Peter Mere Latham, M.D., John Bacot, Esq., Thomas Turner, M.D., D. Henry Warne, Esq., Alex. J. Sutherland, M.D., F.R.S., Edward Tegart, Esq., George Burrows, M.D., F.R.S., John Miles, Esq., Sir John William Fisher, Cæsar H. Hawkins, Esq., F.R.S., James Paget, Esq., F.R.S. *Treasurers*—James T. Ware, Esq., G. Hamilton Roe, M.D. (acting), Richard S. Eyles, Esq. *Directors*—J. Gregory Forbes, Esq., William Munk, M.D., Barnard W. Holt, Esq., Charles Miles, Esq., William J. Little, M.D., William Cathrow, Esq., Henry Sterry, Esq., Henry Jeaffreson, M.D., H. S. Illingworth, Esq., Francis Hawkins, M.D., T. B. Curling, Esq., John Hinton, Esq., John Love, Esq., Henry A. Pitman, M.D., John Adams, Esq., Robert Druitt, M.R.C.P.L., J. Cooper Forster, Esq., Edward Tegart, Esq., J. J. Sawyer, Esq., Henry Lee, Esq., Charles Collambell, Esq., Richard Quain, M.D., George Johnson, M.D., C. F. Du Pasquier, Esq. N.B.—It is distinctly understood that the Surgeon who ranks fifth in the number of votes is elected in the vacancy expected to be caused by the promotion of James Paget, Esq. Mr. Ware, the new President, is the senior living member of the Society, was its senior Vice-President for many years, and is the son of the most strenuous and indefatigable supporter of the Society, Mr. James Ware, its second President. *** We especially call the attention of our readers to an advertisement which appears in another column for new members of this most valuable Society. The operation of the Society extends to Middlesex entire and the London postal district.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Will *Eregeria* favour us, in confidence, with his name and address?

University College.—It is in vain to notice the impudent rascalities of the "Dirty Quacks" in our columns. What we want is a well-considered and determined attempt, by properly-qualified persons, to put in force any existing laws against them. If that fail, to procure such fresh measures as the House of Commons might pass for the protection of public health and morals. But above all to educate the public in morals and common sense.

Enquirer.—The case is recorded on account of its rarity. We believe it to be perfectly unique.

C. L.—We believe there is no enactment of the sort. Small-pox patients are continually removed, and it is left to the discretion and good sense of the persons about them to see that they are removed without danger to the public. Unluckily, that discretion is too often wanting. Small-pox patients are usually considered capable of communicating the disease so long as there is the slightest breach of surface, mucous or cutaneous. We believe the same rule holds good with regard to measles and scarlet fever. Patients are dangerous so long as there is the slightest desquamation, or mucous discharge. One good sneeze from a patient whose nose is discharging might set free millions of sporules, or little organic unitary atoms of Beale's "germinal matter," which might fill the air with a fog of infection. Clothes and houses are believed to hold infection for an almost unlimited time, till cleansed or heated.

*** We have been requested to republish the following appeal:—

AN URGENT CASE OF DISTRESS.

The widow and six daughters of a Medical man are reduced to the greatest extremity, and aid is earnestly solicited from the Profession on their behalf. The circumstances of the case are briefly as follow:—

The late Mr. Walker, of Crick, near Rugby, had practised his profession in the above village for half a century, and had during that period brought up respectably a large family, consisting of six daughters and one son, who is in the Medical Profession, and had effected as a provision for them a life policy of £1000; this, together, with five houses, in one of which he resided, he was compelled to sacrifice to his necessities in his old age.

During the last few years of his life Mr. Walker obtained an annuity from the Medical Benevolent Fund, and this benefit, it was hoped, might be extended after his death to his widow, but the low condition of the funds would not admit of so desirable an object. Mrs. Walker and her six daughters, of whom two are constant invalids, one being epileptic and the other lame, are in a state of destitution, and this appeal is made to the Medical Profession imploring its assistance.

Mrs. Walker's son, having a numerous family, is not in a position any longer to continue aid.

It is desired to raise a fund, if possible, to afford some sort of maintenance for the widow and those of her daughters who are incapacitated for employment, and to enable the rest to obtain suitable situations, or start them in some light avocation.

References kindly permitted to T. Bryant, Esq., 2, Finsbury-square, London, E.C., F.R.C.S., Assistant-Surgeon to Guy's Hospital; H. Osborne, Esq., M.D., 1, Church-row, Islington; and W. Dix, Esq., Surgeon, Long Buckby, near Daventry, Northamptonshire. And subscriptions will be received by the publisher of the *Medical Times and Gazette*, 11, New Burlington-street, London.

HINTS FOR THE PRESS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—After the courtesy which I have derived through the medium of your interesting and impartial journal, I should be deeply insensible of gratitude if I did not avail myself of the earliest opportunity of responding to your inquiries in reference to an advertisement which has been admitted honestly amongst the advertising fraternity of quackery.

In the first place, allow me to beg your attention to the accompanying extract from my collection of evidence on the subject of my book:—

When I published the numerous opinions of the eminent Medical men (with whom every right-minded man must sympathise) I freely confess that I was under the impression that the "quacks" were "black sheep" in the Medical Profession. As soon as I discovered my error, upon application to the Medical Council, I felt, as every Englishman must feel, indignant and concerned that such harpies should be allowed tacitly to infringe and violate the laws of our native land. My proceedings will, I hope, satisfy you on that subject, and although there appears to be an equally divided opinion on the construction of the Medical Act, the public have the satisfaction of knowing that the Act has now been taken out of the pockets of the Council of Medical Education and Registration, and that certain quacks have been convicted, whilst the most notorious have only been ear-marked.

To you, Sir, it must be a matter of surprise that circumstantial evidence, which is deemed conclusive against the murderer of a solitary individual, is not held sufficient against a den of quacks who have jeopardised the lives of their fellow-creatures (chiefly young men and women) through villany and rascality.

The professional abuse to which my book refers is the more easily accounted for, since the law has winked at quackery, and hence provoked some distressing cases, which I consider would not otherwise have arisen. The effect of scabbed sheep in any flock is most calamitous, and hence "the results."

It can scarcely be argued that the Legislature intended to regulate the educated Practitioner and leave the "illiterate showman" entirely without regulation; but, after all, I am bound to admit that Medical abuse is clearly attributable to the inefficient manner in which our laws are administered.

I am, &c.

Beaconsfield, Bucks, November 14. WILLIAM TALLEY.

A FEW REMARKS ON THE CLIMATE OF MENTONE DURING THE WINTER SEASON, 1863-64.

By J. L. SIORDET, M.B. Lond., M.R.C.P.

Signs of the approaching season surround us on every side; builders, masons, and carpenters are busy putting the last touch to new buildings, or hastily finishing off some necessary repairs. Nay, more, some of our winter visitors have already arrived, few in number as yet, but, if rumour speak true, Mentone will, during the approaching season, be more frequented than ever. It appears to me, therefore, a fitting time to offer a few remarks on the climate of Mentone during the last winter season (1863-64). I am further induced to do so, understanding that the advantages offered by this charming spot have lately been called in question. As I have elsewhere stated, it requires a prolonged stay to acquire a correct knowledge of the special qualities of this climate in certain cases of chest disease. It is impossible for any one who spends but a few days here on his way to Italy fully to appreciate the nature of the climate, even were the weather during these few days all that could be desired. Should it happen that a hurried visit be paid to Mentone during a period of atmos-

pheric disturbances, such as will occasionally occur even in the most favoured climes, erroneous impressions will, of necessity, follow.

Last winter we were favoured with a somewhat prolonged visit from Professor Hughes Bennett, of Edinburgh, whose health unfortunately compelled him to seek change of air and temporary rest from his scientific labours. At first he was inclined to be disappointed and dissatisfied with the spot he had been induced to select. Soon, however, his opinion underwent a change, and ere his departure in April he told me that he was thoroughly satisfied that Mentone was a more suitable spot for invalids than any he had visited in Italy, owing to its being well sheltered from cold northerly winds, and less subject to atmospheric vicissitudes.

The last winter was an unusually severe one for Mentone. The older inhabitants complained bitterly of the cold, stating that they had not experienced anything like it for forty years. Referring, however, to the meteorological observations taken by a member of the Scottish Meteorological Society, and of which he kindly gave me a copy, I find that the lowest registration of his thermometer was 31·5° Fahr., or half a degree below freezing point, and that this low point was reached on one night only; but I admit that this gentleman inhabited one of the most sheltered villas at Mentone. The lemon-trees, however, which are notoriously so delicate, suffered little in the vicinity of the sea, although their tender shoots were certainly nipped by the frost. Now the trees look better than they have done for the last year or two, and the spirits of the growers have consequently risen. In exposed situations, along some of the lateral valleys, unfortunately, more mischief was done, yet after all but a small number of trees were destroyed. During the frost great fears were entertained by the landowners of these parts, who asserted that they were ruined, but when the genial spring-time came the mischief was found to be inconsiderable.

During the coldest period of our winter the sun shone almost daily in undiminished glory, and soon dispersed any unpleasant sensation of cold. Several of my friends, too ill to bear any kind of exercise, used, at this very time, to sit in their gardens day after day, basking for hours in the warm sun, recovering for the time a certain amount of strength as well as happiness of mind. One of these gentlemen always secured a good night's rest provided the weather were such as to allow of his spending several hours of the day in the open air—a sounder and more refreshing sleep than that which any opiate could procure him.

During the winter there was a slight fall of snow, which, however, lingered but a day or two on the ground. Compare this with what occurred in England, or even in certain famed localities much resorted to by invalids, and the superiority of the winter climate of Mentone will stand out in bold relief. The *Times* and other daily papers were full of records of unusually severe weather. They told how, in Rome and Naples, the rain and cold were unusual in amount, how snow fell several times during the winter, and lay on the ground for days together; how, in Venice and Pisa, the lagunes and river were frozen over, so as to allow the unusual enjoyment of skating; how, in some parts of Egypt, such as Cairo and Suez, ice was formed and snow dropped in heavy flakes, to the great astonishment of all. So unprecedented was this atmospheric condition that the inhabitants were even reported to have collected the snow with avidity, believing it be manna sent to them in a miraculous manner, as of old to the Israelites in the desert

Fortunately, however, the cold season cannot, I believe, be said to have been injurious in any marked degree to the majority of invalids who visited Mentone. To the natives, however, it proved an unhealthy season, the poorer classes especially, owing to their being insufficiently clad and without artificial means to resist the unusual cold, were very subject to bronchitis and inflammations of the chest.

The weather, in addition to being cold, was unusually dry, for rain (little or much in amount) fell only on fifty-one days out of 240—the full period over which my personal observations extended. Oftentimes the rain amounted to a mere shower, or fell only in the night time. During the months of December, 1863, and January, 1864, rain fell on three days only. The great dryness of the air at these times proved a source of irritation to some invalids in an advanced stage of disease, increasing their cough and preventing sleep; but this inconvenience was often effectually remedied by causing the steam of boiling water to be diffused through the room.

I have had ample opportunities during the past winter of seeing the great advantage of a sojourn in this climate in incipient disease of the lungs, especially in young adolescents. Several such cases fell under my care, not one of them caught a fresh cold, and more than one completely lost all cough. With these fortunate individuals another winter, spent at Mentone or in some other good winter climate, will probably establish a permanent arrest of the disease.

I consider that all patients in the last stage of phthisis ought, if sent out at all, not to be led to expect any great improvement in their condition. I do not, however, consider it unwise or even wrong to advise their transit here, provided there seems a fair chance of their being able to bear the journey. I have seen several such cases during the past three winters, and I can assert that the majority have had not only life prolonged, but the last days of suffering greatly alleviated. I was more particularly struck with this fact, for sitting a few months ago by the bedside of a dying patient, young in years, a fond husband and father, he thus most feelingly expressed himself:—"It is a great blessing," he said, "to have a spot like this for an invalid to come to, even were it but to die. It certainly requires a painful effort to leave a comfortable home, children, relatives, and friends, to undertake a long journey and to reside among strangers; but once here, surrounded by trees ever green, by bright flowers throughout the winter, with the glorious expanse of blue sea, and, above all, with an almost perpetual bright sunshine, the invalid is, as it were, withdrawn from himself, while his mind is diverted and amused, and life, in a manner, enjoyed again. True, an invalid has not all the comforts of home, but, at least, he is in peace, and remains free from pain."

What more effectual pleading could be heard in favour of the beneficial effects of this climate? My poor friend breathed his last here, and however melancholy the journey homewards must have proved to his widow, she cannot regret having been induced to visit Mentone.

Several improvements have taken place here lately. The inhabitants are beginning to recover from the bewilderment into which they were thrown by the sudden rush of winter visitors, but everything is now being done to secure supplies and comforts of all kinds. The Imperial government and the town authorities are efficiently working to improve the resources of the place; existing roads are improved, while new ones are being made. The Marine Parade on the western bay is being prolonged, and in time it will become one of the finest promenades in Europe. Gas-works are about to be erected, and the streets and roads will, at last, be adequately lighted. A new stone bridge now leads across the torrent bed, of which Mr. Ware makes such a bugbear in the account of his first arrival at Mentone.

By the efforts of the present proprietor, aided by the principal landowners, the former palace of the Prince of Monaco is undergoing thorough repair, and will be opened as a casino or assembly and news-rooms, the grounds forming a pleasant lounge, etc.

In conclusion, I will add one piece of advice to invalids. Let them, if possible, avoid living *en pension* at the various large hotels of the place. If they resort to these establishments, most of which are extremely comfortable, they had better enter into special stipulations as to food, etc., etc.; otherwise they cannot obtain easily all requisites and delicacies. The expense of so doing is unavoidably greater, but trivial to many in comparison to the comfort and benefit derived therefrom. Some persons are fond of the bustle and amusement of a *table d'hôte*, but the excitement of company and hot rooms are not conducive to good appetites or easy digestion, and ought, therefore, to be avoided by any one seriously out of health.

Villa Preti, Mentone, South of France, September.

P.S.—I am just informed that early next month the railway will be opened as far as Nice; this will prove a great boon to travellers.

THE GRIFFIN TESTIMONIAL FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following substriptions have been further received on behalf of the above fund:—D. J. Blomfield, Camberwell, 5s.; E. T. A., Richmond, Yorkshire, 5s.; Medical Officers of Bideford (per T. L. Pridham, Esq.), £1 10s.; Dr. Highmore, Sherborne, 5s.; S. Chesterman, Esq., Banbury, 10s. 6d. Per J. G. Morris, Esq.:—E. Y. Steele, Esq., Abergavenny, 19s. 6d.; Dr. Bull, Hereford, 10s. 6d.; C. Lingen, Esq., Hereford, 10s 6d.; G. B. Hanbury, Esq., Hereford, 10s. 6d.; J. C. Lane, Esq., Hereford, 10s. 6d.; R. Thomason, Esq., Hereford, 10s. 6d.; J. G. Morris, Esq., 10s. 6d. Amount previously announced, £95 12s. 6d. Received at the *Lancet* office, £6 14s. I am, &c.

ROBERT FOWLER, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, November 16.

COMMUNICATIONS have been received from—

MEDICAL SOCIETY OF LONDON; ETHNOLOGICAL SOCIETY OF LONDON: Dr. R. GARDINER HILL; M. A. B.; Mr. T. OSBORNE WALKER; Mr. G. GASKOIN; Dr. W. D. SPANTON; Mr. JOHN FOSTER; Mr. JABEZ HOGG; Mr. W. TALLEY; Dr. W. CARR; Dr. E. F. WILLOUGHBY: APOTHECARIES' HALL; Dr. MILROY; Mr. P. LE NEVE FOSTER; Mr. HUSSEY; Dr. S. W. J. MERRIMAN.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 12, 1864.

BIRTHS.

Births of Boys, 1003; Girls, 991; Total, 1994.
Average of 10 corresponding weeks, 1854-63, 1743·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	783	803	1586
Average of the ten years 1854-63	594·1	568·4	1162·5
Average corrected to increased population..	..	..	1279
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa
West ..	463,388	3	6	10	4	4	12	2
North ..	618,210	1	3	12	4	5	20	4
Central ..	378,058	7	6	11	1	2	8	1
East ..	571,158	1	17	19	1	8	19	5
South ..	773,175	2	13	29	5	11	19	6
Total ..	2,803,989	14	45	81	15	30	78	18

APPOINTMENTS FOR THE WEEK.

November 19. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

21. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. A. Balmanno Squire, M.B., "On Diseases of the Skin caused by the Acarus." Mr. Henry Lee, "On the Different Modes in which Constitutional Syphilis may be Communicated."

22. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. Captain Burton, "On the Ethnology of Dahome." T. S. Prideaux, "On the Principles of Ethnology."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 p.m. Mr. Thomas Nunneley (of Leeds), "On Vascular Protrusion of the Eyeball." Dr. Pidduck, "On the Causes and Prevention of Infant Mortality." Mr. J. Morgan, "Ulcer of the Ileum communicating with the Bladder."

23. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

24. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

25. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

COURSE OF LECTURES ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D., F.R.C.P.,
Professor in University College, and Assistant-Physician to University College Hospital.

Lecture VIII.

OXALIC ACID DIATHESIS—OXALURIA—ITS CLINICAL SIGNIFICANCE AND TREATMENT—MULBERRY CALCULI—SULPHATES: THEIR CHEMISTRY, PHYSIOLOGY, AND PATHOLOGY.

(Continued from page 536.)

Pathology.

The term oxalic acid diathesis, or, as it is now usually called, oxaluria, is given to a class of cases in which the urine during days, weeks, or even months contains a deposit of oxalate of lime. This deposit is usually accompanied by a peculiar but well-marked train of symptoms, which have recently received special attention from Begbie, Beneke, Frick, and others. The symptoms are mostly of a nervous and dyspeptic character, and although not dangerous in themselves, are nevertheless deserving of the closest attention of the Physician, for when left unattended to they oftentimes drift into those of confirmed hypochrondriasis, and end by rendering the unfortunate patient little else than a nuisance, both to himself and his friends. Supposing even that this form of the affection is escaped from, another still more dangerous, though less distressing, is sooner or later sure to arrive—namely, the formation of gravel or stone.

Oxaluria is more frequently met with in men than in women, but the latter are not entirely exempt from it. Moreover it is most common among persons in the prime of life, and in the better classes of society. Its most prominent symptoms are disordered digestion, irregular and capricious appetite, flatulence, and a feeling of oppression in the chest after eating; irritability of the heart, inducing palpitation on the slightest exertion or excitement. After a time the disposition becomes morose, and the merest trifles are sufficient to disconcert the patient. Both resolution and activity are wanting, and the daily routine of ordinary business becomes irksome in consequence of every trifling mishap being magnified into a serious evil.

At this stage the disease is still amenable to treatment, and by proper attention to diet, fresh air, exercise, and a regular course of acid tonics, the oxaluria may be completely removed in a comparatively short space of time. If, however, this stage of the affection is allowed to pass unheeded the patient soon begins to suffer from heat or pain in the kidneys, shooting or extending deep down in the loins, and irritability of the bladder, inducing frequent micturition. At the same time the urine has a tendency to throw down a somewhat copious deposit of white mucus, entangled among which may be found numerous crystals of the oxalate of lime. In the most inveterate cases the patients complain of being impotent, and suffer from the usual train of symptoms associated with stone in the kidney or bladder.

The presence of oxalates in the urine denotes, of course, the pre-existence of oxalic acid in the blood; and it is now generally conceded that the dyspeptic, as well as the nervous symptoms just alluded to, are the direct result of the chronic poisoning of the brain and spinal cord by the minute quantities of oxalic acid in the circulation. The renal and vesical symptoms, on the other hand, are no doubt due to the local mechanical effects of the oxalic deposit in the kidneys and urinary passages.

Beneke thinks that there is still another class of evils due to oxalic acid blood-poisoning. He believes that the oxalic acid circulating in the blood dissolves out from the tissues, and removes from the system the phosphate of lime, thereby diminishing the activity of the various organic processes of which life is the manifestation. Whether or not this be in reality the case, I am not prepared to say; all I know is, that an abnormal deposition of phosphates in the urine is not an unfrequent accompaniment of oxaluria. In these cases the urine is either alkaline, neutral, or, at the very most, feebly acid at the moment of being passed. On boiling, it deposits a quantity of amorphous phosphates, which are again re-dissolved on the addition of acetic acid. In such cases of mixed phosphatic and oxalic deposit, a ready way of ascertaining how much is due to the presence of phosphates, and how much consists of oxalates, is to add acetic acid to the sediment. The acetic acid, by dissolving away all the phosphates, allows the amount of the insoluble oxalates to be estimated.

Again, in another class of cases which is much more common, the deposition of phosphates apparently succeeds the oxaluria, for one constantly encounters mulberry (oxalic acid) calculi with an external coating of phosphates upon them. As this, however, may, in many instances, be due (as was pointed out in the lecture on Phosphates) to a mere local cause, I beg to direct your attention to this phosphatic stone (No. 3462 of Liston's Collection in University College Museum), which beautifully illustrates the fact that it is not always so, and that a phosphatic may both precede as well as succeed an oxalic acid diathesis. The surface of the section is perfectly snow-white, except at a point nearly equidistant from the centre and the circumference, where a dark circle, one-twelfth of an inch in thickness, runs through the stone. This line of inky blackness, forming such a striking contrast to the snow-white phosphates, is entirely composed of oxalate of lime. Thus it is seen that, even in a urinary concretion, the clinical history of a patient may be read as truthfully as the geologist can trace the early history of the earth in the different strata forming its crust.

This patient's general constitution of body was phosphatic; and for months—aye, probably even for years—he suffered from a deposition of phosphates in the bladder. But suddenly, and for a time, either through treatment or otherwise, a change took place in his system, and the phosphatic deposition was arrested. During this period, however, the patient laboured under another evil. His blood was loaded with oxalic acid, which his kidneys daily and hourly eliminated in the form of oxalate of lime, which gradually deposited itself round the phosphatic stone. By-and-by, however, he got rid of his oxaluria, but unfortunately only to return to his old habit of body; for here we see the phosphates were again deposited, and continued to be so until the stone nearly reached three inches in diameter.

The occurrence of such a state of things at the present day, when the enlightened teachings of physiological chemistry have placed in our hands the means of arresting both the phosphatic and oxalic diathesis, would be a discredit to Medicine. Fortunately, however, the schoolmaster is abroad in ours as well as in other professions, and we are not likely to meet with such a case.

In the above example the oxalic was temporarily engrafted, as it were, upon the phosphatic habit of body; but this state of matters may be exactly reversed, and a person with an oxalic acid constitution for a time suffer from the phosphatic diathesis. The truth of this statement is well illustrated by a calculus in the museum of the Royal College of Surgeons (H. b. i., described at p. 131, and figured in plate ix., of the Catalogue). The centre of the stone is composed of the oxalate of lime; surrounding this is a broad layer of white phosphates, and outside of that again is a well-marked covering of dark oxalates, thereby showing that the phosphatic only temporarily replaced the original oxalic constitution of body.

Now, just as oxaluria may be engrafted upon a phosphatic constitution, and *vice versa*, so may oxaluria be engrafted upon the uric acid habit of body, and *vice versa*.

In 1861 a fish-dealer, aged 24, labouring under stone applied to me for relief, and on examining the sediment in his urine with the microscope, I found that it consisted of mucus, and bladder epithelium, together with crystals of oxalate of lime, and uric acid. The coexistence of these crystals did not in the least surprise me, for I had already profited by the clinical teachings of this other calculus (No. 3662, Liston's collection, Univ. Coll. Museum), in which it is clearly shown that oxaluria may for a time be engrafted, as just said, upon the uric acid diathesis. The central part of this stone is pure, or nearly pure, uric acid; then comes a broad layer of oxalate of lime, and lastly another layer of uric acid; thus showing, as in the other case previously alluded to, that when the patient recovered from his attack of oxaluria it was not to get well, but only again to fall back to his old habit of body—in this instance most probably a gouty one.

As already said, crystals of uric acid and of oxalate of lime

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—Ed. *Med. Times and Gaz.*

occasionally coexist in the same urine. The cause of this some might consider accounted for by Dr. Owen Rees's theory, which is, that not only does the uric acid diathesis frequently give rise to a deposition of oxalate of lime, but that all the oxalate of lime met with in human urine is the direct product of the decomposition of the uric acid during its sojourn in the urinary passages. He bases this assertion on the circumstance of urates being directly convertible into oxalates by boiling.

In 1859 I carefully repeated Dr. Rees's experiments on this point, but invariably with a negative result, and since then I notice that other observers, among whom may be mentioned Racle and Parkes, have equally failed in confirming the assertion. All, however, agree with that gentleman in saying that the uric acid is frequently closely associated with the oxalic acid diathesis. Indeed, oxalate of lime is frequently met with as a spontaneous deposit in the urine of gouty patients, either alone or associated with uric acid, and this is not to be wondered at seeing that many of those things which favour the appearance of oxalate of lime in the urine are precisely those which tend to create an excess of uric acid in the blood, and thereby bring on an attack of gout. High living, excessive use of stimulants (either vinous or spirituous), sedentary habits, and such like.

The last calculus examined showed that the uric acid might both succeed and precede the oxalic acid diathesis. Here is another stone, also from Liston's collection (No. 3661, a), which shows equally clearly how the uric acid deposit may be succeeded by the deposition of oxalate of lime, and that again in its turn be followed by a deposition of phosphates. In this case, however, the deposit of phosphates may not have arisen from the patient's labouring under the phosphatic diathesis, and consequently excreting an excess of phosphates from his system, but be simply due to a local cause exciting local changes, the climax of which being the deposition of the phosphates normally existing in the urine.

These changes may be classified in three groups:—1st. The irritation caused by the presence of a stone in the bladder excites an excessive secretion of mucus, which (2nd) in its turn brings about the decomposition of the urea, the ammonia of which, by rendering the urine alkaline, (3rd) causes the precipitation of the phosphates.

This stone teaches us, therefore, another important clinical fact—namely, never to allow a calculus to remain in the bladder of a patient longer than we can help; and if its removal is beyond our power—which is seldom the case—to prevent at least its enlargement by any subsequent depositions. The time is now arrived, in fact, when calculi ought to become exceedingly rare, for if the patient applies for advice sufficiently early the scientifically educated Physician has it in his power entirely to prevent the formation of certain kinds of stone; and it is probable that the day is not far distant when a patient with a stone of any size in his bladder will be looked upon in the light of a clinical curiosity. As I said once before, the weak point in Medicine does not consist in a lack of remedies, but in a deficiency of knowledge or discrimination in the selection of them.

Even in the treatment of a case of simple oxaluria skill and judgment are required. A remedy that is suitable for one patient may be quite inappropriate for another; and even in the same patient, life being an ever fluctuating quantity, the remedy which was beneficial at one time may prove prejudicial at another. For example, I have seen cases of oxaluria which had resisted all the usual routine of mineral acid tonics, at once entirely disappear when the patient was put on the acid phosphate of soda, and *vice versa*.

In the treatment of oxaluria, as in that of every other disease, the period of life, the state of the general health, the condition of the various vital organs, the circumstances of the patient, etc., must all be taken into account if we desire to prescribe otherwise than empirically. This observation will be still better appreciated after I have called attention to the importance of the proper performance of the respiratory functions in these cases. Whatever impedes pulmonary arterialisation increases the amount of oxalic acid in the blood, and, as is known, an excess cannot long exist in the circulation without making its appearance in the urine in the form of oxalate of lime.

There can be no difficulty felt in understanding how impeded respiration gives birth to oxaluria when what was said regarding its physiology is remembered. It was then pointed out that many of the animal products which by perfect oxidation are converted into urea and carbonic acid—among these we numbered uric acid, lactic acid, sugar, fat, creatin, lucin, tyrosin, and guanin—by imperfect oxidation are changed into other substances, among the chief of which is oxalic acid. The lungs and kidneys are here again seen to perform a vicarious part, for when oxidation is complete the lungs exhale the carbonic acid, and when incomplete the kidneys eliminate the oxalate of lime. This, indeed, is the explanation of the so-commonly-observed fact that in the urine of patients labouring under bronchitis, phthisis, pneumonia, and emphysema, there is a temporary deposit of oxalate of lime.

Even in those diseases where the pulmonary arterialisation is only indirectly interfered with—as, for example, in heart and liver affections impeding the pulmonary circulation—oxalates likewise make their appearance in the urine.

Perhaps for an analogous reason crystals of oxalate of lime are of common occurrence in the first urine passed in cholera.

Then, again, we must never lose sight of the necessity of paying special attention to the ingesta in cases of oxaluria. Diet here has an important influence, for there can be no doubt that a large amount of oxalic acid finds its way into the system along with the food and drink. All vegetables and fruits rich in oxalic, citric, malic, and tartaric acids are to be scrupulously avoided. A little indulgence in a rhubarb tart will often cause a temporary deposition of the oxalate of lime in the urine of the most healthy, and an apple pudding greatly augment it in those predisposed to such deposits.

Champagne, Moselle, and other sparkling wines ought for a similar reason to be avoided. Even the common fermented liquors had better be left off, and if stimulants are required, the spirituous form, brandy, whisky, or gin, is to be preferred.

Carbonated alkalies are also to be refrained from, as they are transformed into oxalates in the body. The quality of the drinking water must also be inquired into, for should it by any chance contain an excess of lime its habitual employment will completely frustrate our best efforts at treatment. If oxalic acid is to be eliminated at all from the body, it must be eliminated in a soluble form, and our remedies will utterly fail to do so if an excess of lime is at the same time present in the urine. The oxalic acid will of course combine with the lime in preference to anything else, and thereby form one of its most insoluble of salts. Lime is, in fact, the agent we employ to detect small quantities of oxalic acid in solution; so that at all hazards the lime must be got rid of from the drinking water. The simple process of boiling will separate a large quantity of it, but if that is not sufficient distilled water must be employed. This may be obtained from any neighbouring steam-engine, if nothing else is at hand, and to make perfectly sure that it is clean it may be passed through a charcoal filter before being brought to the table. As distilled water is a very unpalatable drink, a little toast may be soaked in it; or, what most patients prefer, a small quantity of brandy added.

Oxalate of lime and phosphatic calculi are the two most common forms of stone met with in districts where the water is impregnated with large quantities of lime; and it is astonishing how long it sometimes takes to arrest these deposits in persons habitually accustomed to the use of such waters. It seems as if the system in some cases required a long time to free itself of the lime with which it had become impregnated, and this is the more unfortunate as many of these are examples of renal calculi, which there is no possibility of getting at except by means of solvents.

In an early part of this lecture it was mentioned that oxaluria is most common in the prime of life; but as there are exceptions to every rule, this one is also occasionally departed from, and we meet with the oxalic acid diathesis in childhood as well as in old age. A similar remark is equally applicable to oxalate of lime calculi, which, although rarely, are still to be met with both in early and advanced life. Quite recently I saw in consultation, along with Mr. Owen, of Cleveland-square, a gentleman who, though 70 years of age, had just passed by the urethra a small oxalate of lime calculus, which, judging from its size and appearance, must have been of very recent formation. The history in this case tended to the belief that the stone had been formed in the left kidney.

As regards the special pathology of this kind of renal calculus, one word is here necessary. For, according to Hassall, Beale, and some others, the dumb-bell-shaped crystals of oxalate of lime are more frequently the originators of mulberry renal calculi than the octahedral form. This idea, I believe, originally sprang from the fact that dumb-bell-shaped crystals are occasionally found imbedded in the fibrinous casts so commonly met with in the urine of cholera; and as the fibrinous casts are formed in the renal tubes, the oxalate of

lime crystals, it is supposed, have also formed in the same situations. Beale has even found dumb-bell crystals in the renal tubes; but, from my own observations, I may add that not alone are dumb-bell, but also octahedral, crystals occasionally to be found in the tubes of the kidney; and therefore it is highly probable that occasionally the one and occasionally the other forms the nucleus of renal mulberry, gravel, and stone. It matters, however, little which it is, as the treatment of both is identical.

I cannot leave this subject without briefly calling attention to a remarkable case in which an exudation of crystals of oxalate of lime occurred on the cutaneous surface of a man labouring under retention of the urine, as it is a good illustration of the vicarious action of the skin and kidneys, and forcibly points to the importance of paying attention to the one while the performance of the functions of the other are in abeyance.

The case occurred in the practice of Dr. Hingston, of Montreal. The patient, after suffering for two days from retention of urine depending upon stricture of the urethra, was attacked with phlegmasia of the left leg. The limb pitted on pressure, and patches of a bright red colour, painful to the touch, appeared about the knee. On the following day these subsided, and the patient became bathed in perspiration, with a strongly urinous odour. The face had a deep yellow cadaverous appearance, and the respiration was laboured. On the following morning—that is to say, the fourth of the retention—the face and uncovered portions of the neck and hands felt to the touch as rough as sand paper. On examination the roughnes was found to be due to the presence of cuboid crystals of the oxalate of lime. The patient died a day or two afterwards in a convulsion from uræmic poisoning.(b)

Sulphates.

Sulphuric acid is one of the normal constituents of human urine. It is combined with potash in the form of a soluble sulphate.

Chemistry.

Sulphuric acid needs no description. Its presence is easily detected by adding a few drops of hydrochloric acid to a drachm of urine in a test-tube, and then a drop or two of a solution of chloride of barium, when an immediate white precipitate indicates the existence of sulphuric acid (sulphates). The precipitate is quite insoluble in either hydrochloric or nitric acid.

Quantitative Analysis.—Prepare a standard solution by dissolving 30·5 grammes (473·75 grains) of dry crystalline chloride of barium in 1000 cubic centimetres of distilled water. One cubic cent. of this solution represents the equivalent of 0·01 gramme of sulphuric acid.

Having prepared or procured the above solution, proceed as follows:—Add to 50 c. c. of urine five drops of hydrochloric acid, and after stirring the mixture well, drop in the standard solution from the apparatus described under the head of urea until a precipitate ceases to form, or, still better, until a few drops of a solution of sulphate of magnesia, when added to a portion of the urine *plus* the standard solution, give rise to a haziness. The haziness of course indicates that all the sulphuric acid which was originally in the urine has been removed, and that there is present in the mixture an excess of the standard solution, which combines with the sulphate of magnesia. The amount in the twenty-four hours' urine is then ascertained by the ordinary method of calculation, described under the head of Urea Analysis.

Physiology.

The amount of sulphuric acid in healthy human urine depends on two things—1st, the metamorphosis of the tissues containing sulphur and sulphates; and 2nd, on the food. The daily quantity excreted in normal urine varies from 1·123 (Becquerel and Rodier) to 2·094 grammes (Gruner, weight 120 lbs.). The minimum amount is passed during fasting; the maximum, after a full meal. Animal diet increases the amount; vegetable food diminishes it. Exercise, both mental and physical, increases it. As only a small portion of sulphates are found in healthy blood, their use in the animal body is thought by some not to be indispensable; thus differing very materially from the chlorides. It is generally stated, too, that there are no sulphates in the bile, gastric juice, and milk; but this is an error, as I have detected them in all of these secretions. In the bile there is a large quantity of sulphur in the fine white crystalline product taurin. The chief part of the sulphuric acid found in the urine, however, comes from the food. Some foods are exceedingly rich in sulphur (peas, for example), and give rise to great disengagements of intestinal flatus loaded with sulphuretted hydrogen gas. Lettuce and cabbage have, in some persons, a similar effect. When alkaline sulphates are taken as medicine (sulphate of magnesia) the urine contains a large amount.

Pathology.

Bence Jones found the excretion of sulphuric acid increased in delirium tremens; and Parkes relates the case of a boy, aged 14, who, while labouring under an attack of febricula, passed the large amount of 29½ grains daily; the average amount passed by a healthy male adult on full diet being only 2 grammes, or 31 grains.

It must be admitted that there is still very little known regarding the absolute quantity of sulphuric acid eliminated in disease. All the urinary sulphates being soluble, no spontaneous precipitate of them ever takes place; and consequently but little attention is in general paid to the subject. Heller, however, says there is a great increase in the urine in inflammatory affections, even in spite of the low diet, and that, on the other hand, there is a diminution in cases of chlorosis and affections of the spinal cord, as well as in disease of the kidney. But as Lehmann has doubted the correctness of these views, the whole subject requires complete revision.

(b) *Dub. Hosp. Gaz.*, August 15, 1859.

ORIGINAL COMMUNICATIONS.

ON

THE TREATMENT OF MALARIOUS FEVER.

By E. HARE,
Deputy-Inspector-General of Hospitals, Bengal.

(Continued from page 540.)

I will now describe fully my treatment in detail, and the theoretical conclusions I have deduced from it.

My arrangements for the experiment on fever were to give quinine a full trial as an antidote. I gave it, therefore, irrespective of all variations of symptoms, except that the more violent and more dangerous these symptoms appeared the larger, earlier, and more frequent was the dose of quinine given. My assistant was directed to mix a large bottleful of quinine, rubbed up in plain thick mucilage, ℈j. to the ounce. I would not give it in its more soluble form with diluted sulphuric acid because I feared that in the frequent and large doses I proposed giving, the quantity of sulphuric acid required to dissolve the quinine being considerable, it might injure the stomach; and besides, being an experiment, which I wished to be simple, and free from all objection, I preferred giving the quinine pure. One dose of a purgative, viz., ʒj. of compound jalap powder was allowed to be given in some cases, but latterly, especially during the rains, the purgative was very rarely given. All the worst cases, in fact, had no purgative, for I was too anxious to give as much quinine as I could, and as early as possible, and was afraid of losing time by nauseating the patient with other medicines. Moreover, I believe the purgatives delay and prevent the action of quinine, and remove it from the system too rapidly. Sydenham and many other Practitioners have observed "that we are in danger of bringing back intermittent fevers if we employ purgative medicines too soon after we have stopped them by bark," and we have the same observation in De Haen ('Cullen,' vol. i., p. 642)."

The patients came in at uncertain hours, and I could not be always in the wards. I therefore gave a standing order to my assistants that the moment a patient was admitted he was to have ℈j. of quinine. I saw him myself always a short time afterwards, and gave him another ℈j. or ʒss., according to the urgency of the symptoms. In visiting the patients an assistant accompanied me, carrying the large bottle of quinine described above and a two-ounce measure glass, and each patient had an ounce = ℈j. of quinine given to him, and it was swallowed before me. Ordinary cases took this dose three times a-day, but if the fever was dangerous I gave ʒjss. of the solution, or ʒss. of quinine at once, and ℈j. every three or four hours afterwards, according as I found the stomach would bear it without vomiting. It was very rarely necessary to continue this treatment beyond the second day after admission. The patient was almost invariably convalescent on the third day, when gr. v. doses three or four times a-day for about two days more, with good food, completed his cure.

Throughout the treatment, if the patient had had his fever long, and thus, being without appetite, had taken no food for some days, I gave him moderate quantities of fluid nourishment without delay—as arrowroot and milk, and soup of moderate strength—and if he were a man of free, or especially intemperate, habits, I allowed him, if he had been ill a few days and without his usual stimulant, a small quantity of brandy or wine.

I may safely remark that in the annals of Medicine such an experiment as the above, in simplicity and decisive results, has never before been recorded. If the Table of Mortality No. 3 of Non-Military General Hospital be compared with the Military (No. 4 Table), which forms a part of the same range of buildings, the difference will be seen to be very great. In the non-military Hospital, during the twenty previous years, there was 1 death in every $11\frac{1}{4}$ admissions for fever, whereas in the military the mortality was only 1 in 30, and the cause of this difference will be at once perceived, from the very different description of cases admitted in each. The military patients are simply the soldiers of the garrison of Fort William, who are sent to Hospital on the first appearance of sickness, whereas the cases received into the non-military wards are from the unemployed sailors wandering about Calcutta—in fact, any European who is sick and has no other home to shelter him. Sailors and others are often thus picked up from the roads of Calcutta in an insensible state and sent to the Hospital. They are, therefore, the most hopeless class of cases that can be treated in the deadly climate of Bengal, and their treatment having been so long delayed, becomes most difficult. The large mortality—1 in every 11 cases of admission for fever—for the twenty years before my experiment proves how severe the cases must have been which I treated there. The mortality also for dysentery—1 death in every $4\frac{1}{2}$ cases—during the same period (see the Table No. 3) is another instance of the enormous mortality which had been habitual from the above cause in the non-military Hospital. My treatment, therefore, comprised the young, robust soldier, treated immediately after his sickness appeared, and the debauched, drunken outcast from the streets and ditches round Calcutta, where they were frequently found by the police after lying there all night.

I will now, having explained what the experiment was, state the deductions which I think must be drawn from the result.

In the first place, no blood was drawn either by lancet or leeches. Bleeding, therefore, is not necessary, and the disease not inflammatory. No opium; no purgatives to bring away bad secretions; no drug of any kind is required, except quinine, for the successful treatment of malarious fever.

Quinine also may be given in the largest doses, whether there are head symptoms, delirium, coma, or pain in the liver. Whether it be in the hot stage or cold, quinine is not only safe for all forms of malarious fever, but its certain cure; and in cases where there is danger to life, the earlier and the larger the doses of quinine which can be given to the patient the better. Vomiting and full cinchonism were my only checks for continuing it in full doses. I mean by cinchonism the peculiar head symptoms which large doses of quinine produce, and when they were fully obtained I considered my patient safe, and that only moderate doses were then required. I always waited, too, till the cinchonism had lessened before I continued even small doses—gr. iv. to v. three or four times a day for about two days longer.

Quinine, therefore, may with reason be pronounced as a direct antidote to the poison of malaria, and not simply as an anti-periodic and adapted only to stop periodicity, for it always cured equally well those fevers in which there were no periods, but which continued without the slightest remission during the twenty-four hours.

I must here also explain a deduction from my experiment which I had long meditated before I went to Calcutta. It had constantly struck me that all the fevers I met with in India were caused by malaria. All infectious fevers, as typhus and typhoid, are unknown in the plains of India among the European part of the population. I have met with only two cases of typhoid fever, with ulceration of Peyer's glands, during my practice in India, and they were both recent arrivals from on board ship, and these cases I saw after my Calcutta experiment. I therefore had come to the conclusion that, with rare exceptions, all fevers in India, whether called ardent, continued, congestive, inflammatory congestive, remittent, or intermittent, were all caused by one only cause, viz., the blood poison malaria. It was my conviction of this truth which justified my indiscriminate and determined dosing with quinine every fever patient admitted into my wards, and I was guided a good deal in my plans by the following passage from Dr. Holland's "Notes and Reflections," p. 150:—

"And as bark by curing associates together many intermittent affections, under the presumption of a common cause, so may colchicum furnish similar inference regarding affections seemingly remote in situation and symptoms. This mode of inference, hitherto very limited, may hereafter be extended much further. It is one of singular value, as closely connecting the treatment with the theory of the disease, and rendering them mutually corrective of each other. It at once enlarges and simplifies our views in every part of pathology; each fact well ascertained is fruitful of results, far beyond those which directly appear to the view."

Again, p. 348, he enumerates these as proofs of a disease having a common origin with ague, viz., malaria:—

"1st. By their intermissions.

"2nd. By their succession to, or alternation with, intermittent fever.

"3rd. By the influence of the same specific remedy in removing or relieving such disorders."

He says the application of these proofs might be largely made.

Again, p. 354:—"The influence of certain medicines, and particularly bark, in curing even the most anomalous varieties of these intermittent disorders, is a fact of great interest. Like the use of mercury in obscure syphilitic affections, or colchicum in the most irregular forms of gout, it enables us to denote and class together symptoms apparently the most remote in kind, but which presumably could not thus be relieved unless depending on some common cause. We have, therefore, in the specific nature of the remedy a sort of practical test of the character of the disease, often of great importance to the consistency and success of our treatment, and related, through the principle of the inquiry, to some of the most interesting questions in all pathology. This it is, as was noticed when speaking elsewhere of colchicum, which gives peculiar value to all which illustrates the action of these remedies. They are the interpreters of facts, far beyond their momentary effects, and of connections between morbid states, which are in no way so definitely made known to us."

The success of this method is acknowledged in establishing the gouty nature of many diseases of the joints, eye, heart, etc., by colchicum; by mercury, in testing the syphilitic nature of many diseases of the skin, iritis, etc.; and by quinine and arsenic, in proving many neuralgias and other very numerous chronic diseases, described by MacCulloch, to arise from malaria. But I believe that I am the first who ever thought of applying the principle, connected as it is with some of the most interesting questions in all pathology to acute disease, viz., all the fevers of India. And let me remark that colchicum and mercury being purgative, and acting freely on all the secretions, may act thus beneficially on all diseases apart from any specific effect; but this cannot be said of quinine, which acts neither on the bowels nor any of the secretions. This reasoning, therefore, applied to quinine may be received with greater certainty than to the others; and yet remarkable and valuable results have been obtained from experiments on the latter. It may, therefore, be received with the greatest confidence that the fact that 421 fever cases, indiscriminately admitted during all the seasons of the year, were, I may say, saturated within two days with quinine, with only three deaths, in two Hospitals in Calcutta, where the usual mortality had been, for twenty years previously, one death in eleven cases, and one death in thirty, proves beyond dispute, to my mind, that all these fevers were of a malarious origin. For, mark, it was not only that quinine was given with impunity—that is, that it did not increase the average mortality, which had been, before its use, enormous.

A faithful history also of my Calcutta experiments obliges me here, though I do it with great regret, to notice an unfortunate accident which happened to me during its course, and which has often since been quoted to my discredit. In the spring of the year a violent epidemic of small-pox and a bad form of measles broke out in Calcutta, and many of these cases in their primary febrile stage were sent to my ward as acute fever cases. My rule was invariable to my assistants to give every patient a ℈ dose of quinine on admission; and these cases having often violent febrile symptoms, had the large dose given them, and even after my own inspection quinine was frequently repeated; for I could not, I confess, till the eruption appeared, distinguish the fever stage of small-pox or measles from any other fever. The mortality among

these cases was very large, though, of course, the moment I detected what their disease really was, I asked Sir Jas. Thomson to inspect them, and have them removed to the other wards of the Hospital. Such unfortunate accidents in an indiscriminate experiment like mine were unavoidable; and my only consolation since has been, that, on the whole, I have saved life largely, though in causing a few deaths I was unfortunate. And if this misfortune, which has often been brought forward against my experiment by those who were on the spot, and witnessed the sad result—if it be considered calmly, and reasoned on, it shows more clearly, than any number of other facts could possibly have done, what enormous mortality I must have had among my patients if the other fevers which I treated had not been all malarious. It may be considered, therefore, as demonstrated by my Calcutta trial, without referring to the 6982 fever cases since treated with quinine in the same way, in my regiments, during nine years in every part of India and Burmah, that $\frac{999}{1000}$th of the fevers in India have a malarious origin. And this I must consider to be a most valuable discovery, not even a trace of which can be found in any of the literature of tropical diseases to the present day.

It was this point also which gave me more anxiety than any other before I went to Calcutta; for though I had tried the quinine treatment with uniform success on the fevers in Upper India, yet the number of varieties of fever described as having different causes and symptoms by Medical writers of high repute (a) in Calcutta—sun fever, ardent, continued fever of the hot weather, congestive fever of the cold, inflammatory forms of continued fever—made me very anxious whether I might not cause large mortality by using an indiscriminate quinine treatment. In fact, a presidency Surgeon in the most extensive practice in Calcutta warned me on my arrival, in the presence of Sir Jas. Thomson, that if I gave quinine to fever cases with head symptoms I would certainly kill them. I was startled by this assertion, and at first timid, but I went on trusting in my reason, for I had carefully examined the reported cases of these varieties of fever in the Calcutta Hospital records, and had seen so many of them changing one into the other that I felt certain that Dr. Holland's second anxiom might be applied—"By their succession to, or alternation with, intermitting fever," and that whatever was the cause of ague was the cause of them all.

Thus, Dr. Stokes says, that bleeding according to Macintosh's system has a great tendency to convert ague into continued fever, and *vice versa*. Many of Dr. Twining's cases of continued fever in their convalescence terminated in ague—remittent fevers constantly ending so. I cannot, of course, quote these cases which decided my opinion, and which would fill a volume. I merely attempt to describe of what kind my reasoning was. I had seen also one case, and have often witnessed them since, of what Dr. Haspel in Algeria called Algid fever—where my patient remained for a full thirty-six hours as cold and blue as in the collapse of cholera, and under large doses of quinine, when he was at length fully cinchonised with deafness and partial amaurosis, the first symptom as I may call it of returning life, when the cinchonism had subsided, was a violent paroxysm of burning fever, which a few more doses of quinine cured. I made an analysis, too, of a large number of the different varieties of fever recorded in the old diaries, and the result would convince the most captious that they were all one and the same disease, frequently interchanging its symptoms.

(To be continued.)

CASES OF SOFTENING OF THE BRAIN AND SPINAL CORD.

By JOHN W. OGLE, M.D., F.R.C.P.,
Assistant-Physician to, and Lecturer on Medical Pathology at, St. George's Hospital.

(Continued from page 513.)

Case 39.—William W., aged 39, was seen by Dr. C. J. B. Williams, of London, in March, 1861. Four years previously he had suffered from pain in the left side of the chest, which was relieved by medicine. Two years later, the bowels being very costive, he had some kind of a "fit," in which he lost consciousness, became pallid, and nearly pulseless. This condition was relieved by vomiting, but a feeling of oppression, often relieved by eructations of flatulence, still remained. Since that period he had had three more seizures, all being preceded by a "coppery taste" in the mouth and by "darkness." Of these the second fit came on when the stomach was empty, and in it consciousness was not entirely lost. The heart was examined, and the sounds were found "clear and short." During the month of April on one occasion he had much giddiness relieved by flatulent eructation. In January, 1862, it was reported that he had been able to walk three or four miles until lately, when he had suffered from "cramps" in the legs on walking a hundred yards. He had also suffered a "chill," followed by palpitation of the heart and a bitter taste in the mouth. There had been no "fit." At the beginning of February, after hunting in the cold air, he experienced numbness and a cold sensation with pain in the *left* arm. He still continued to use the arm, and it was stated that no pulse had been felt in it. He then came to London, and the journey was followed by headache and vomiting. He still had occasional cramps in the legs. When examined by Dr. Williams the heart sounds were found "short," but no kind of murmur could be detected. The tongue was furred; urine very turbid. On July 11 he was seized with a "fit," followed by loss of power in the limbs on the *right* side. Recovery was imperfect, and he died thirty-six hours after the attack.

Post-mortem Examination, conducted by Mr. Prestwood Lucas.—There was much livid discoloration, not only of the more dependent parts of the body, but also of the front of the neck and upper part of the thorax. Cranium: Strong adhesions of the dura mater to the calvarium existed; sinuses and vessels of the arachnoïd much congested with dark and more than usually fluid blood; small amount of serum at the base of the brain; at the lower and posterior part of the cerebellum the arachnoïd was distended into a small pouch with reddish serum. The right hemisphere of the brain was of normal aspect and consistency. The left hemisphere was very vascular, and presented a very considerable number of red points when cut through. At the base of this hemisphere a firm plug of coagulum was found blocking up the *anterior cerebral artery* where it ramifies into the substance of the left corpus striatum, through which its minute branches were traced. This corpus striatum was softened and reduced into a semi-fluid pulp, that on the right side being of normal firmness and consistency. The left choroïd plexus was dark and congested. No other abnormal appearances were observed in the other parts of the brain or cerebellum. Thorax: Extensive old adhesions were found of the pleura, especially in the left cavity. Lungs crepitant and healthy. Pericardium universally adherent to the heart, so firmly that it could not be separated from it but by dissection. The heart was generally much dilated; the walls of the ventricles thin and flabby. No valvular imperfection or disease could be observed. Both ventricles contained a good deal of dark and very fluid blood, and in the left ventricle were a few dark coagula. On and surrounding the base of the heart, like a coronet, were several tumours of various sizes. The one first observed on exposing the heart gave the impression of its being an aneurysmal pouch. On opening it about two ounces of thick pus flowed out, together with the *débris* of a large hydatid. Other such tumours, consisting of two hydatids, from the minute orifices or stomata of which a clear fluid was spurted out when pressed up, were dissected off. The largest of these tumours was found attached to the under surface, and embraced by the arch of the aorta. A great number of smaller transparent vesicles were found interspersed in the cellular tissue all over the base of the heart. None communicated with the interior of the aorta. Abdomen: The liver was large, but presented no other appearance of disease. The other organs could not be examined.

P.S.—For the details of this case I have to thank C. Williams, Esq.

Case 40.—William L., aged 40, admitted into Hospital October 6, 1821. It was stated that he had had an attack of fever a year previously, followed by paralysis. On admission he had no power of articulation, but appeared to understand what was said, and the right arm and leg were powerless; and for a time appeared to gain strength. Three days afterwards, while in the water-closet, he had a convulsive fit, when he fell and cut his forehead, and the wound became erysipelatous. Fever set in, and he became oblivious and senseless. Counter irritation and purgatives were resorted to. On the next day he became comatose and died on the 15th.

Post-mortem Examination Seven Hours after Death.—Limbs rigid; integuments of scalp and eyelids very swollen, and containing purulent fluid. Cranium: Vessels of cerebral mem-

(a) See Twining and Martin, also Annesley, vol. 2, p. 511.

branes very full of blood; much sub-arachnoïd and ventricular fluid existed, and the pia mater corresponding to the *left* corpus striatum was thickened. This corpus striatum was quite broken down and disorganised by softening, and such was the case also with a considerable amount of the middle lobe of the left cerebral hemisphere, the medullary portion around the softened brain being firmer than usual. Thorax: Scanty pleural adhesions. Abdomen: Organs healthy.

P.S.—For the details of this case I am indebted to Dr. John Davy, F.R.S.

Case 41.—Sir Henry H., aged 57, had been looking unwell for two or three years, the face becoming sallow and emaciated. On the 15th of April, 1853, whilst sitting down, he felt a sudden darting pain in the head "as if he had been shot." He nevertheless went about his work, exerting his mind with unusual activity. He felt a repetition of the pain two days after the first one, and on the next day had to keep his bed owing to great pain at the back of the head. Two days later the pain shifted to the forehead. There was no fever, but a few leeches were applied to the temples. Some morphia was subsequently given to him; shortly after that (on the 20th) he fell down suddenly and died.

Post-mortem Examination.—Cranium: Increased sub-arachnoïd fluid existed generally. Pia mater at base of brain very injected, and the vessels turgid with blood. Basilar artery rather more opaque than usual; the crura cerebri were softer than they should be, and the walls of the ventricles and the fornix and septum lucidum were exceedingly softened and pultaceous. Much bloody fluid existed in these cavities, and two small clots of blood were found in the superior horn of the left ventricle.

P.S.—For this case also I have to thank Dr. John Davy.

Case 42.—Colonel M., of full habits, aged 56, for two or three years having been noticed as "queer" in manner and very irritable, but in general good health, was suddenly attacked in 1831, at Malta, with severe pain in the region of the gall bladder, unattended by febrile symptoms. As the pulse was full, he was bled and treated by aperients and soon relieved. Another similar attack occurred soon after, and he was treated with mercury, and when convalescent had another attack, and again another. Aperients and small doses of quinine were given without success. He became ill and feeble, with rapid pulse and uneasiness at the epigastrium: was then relieved by hydrocyanic acid. Subsequently having gone on well, he rose one day with headache, and in the course of the day fell down unconscious; stertorous breathing and a contracted state of the pupils, with quick and feeble pulse succeeded, and he was bled largely. The face and limbs (specially on the right side) became much convulsed. Sinapisms were applied and sal-volatile in water given, and he became more conscious. Another seizure followed, but subsided on blood being again freely let, and free evacuations produced by injections. He was at times imperfectly conscious, and on the following day decidedly better after a tolerable night. Castor-oil was given, and on the next day he was still more convalescent, recognising people, but generally unintelligible. He became more restless, and a blister was applied to the neck and strong purgatives and enemata given. On the fifth day from that of the first attack another fit came on, but less severe and of shorter duration. Blood again was let, and tartar emetic given. The night was quiet, but the respiration was at times convulsed and occasionally almost suspended. He died the following day.

Post-mortem Examination.—Cranium: Brain large and well-formed; convolutions rather flattened. Very little blood in the vessels, and but slight fluid in the ventricles or beneath the arachnoïd. Brain generally firm, but its inferior surface, especially that of the corpora striata and adjoining parts were softer than natural, though no distinct patch of softening existed. The right vertebral artery was entirely wanting, the left one being unusually large and ascending to the pons Varolii, and appearing as the basilar and then dividing into two branches. The internal carotid arteries were also larger than usual, as also the other arteries of the brain. Thorax: Pleural adhesions; large and flabby. Abdomen: Three large gall-stones existed in the gall-bladder; liver pale.

P.S.—I have to thank Dr. Davy for this case also.

Case 43.—Michael M., aged 30, admitted into Fort Pitt August 5, 1831, having been sent home from India, and having had frequent attacks of mental aberration with "noises in the head" and having neglected his food. He had often been punished for supposed malingering. At last he became fatuous, but quite harmless. At the latter part of 1831 he had much cough and expectoration, and in 1833 he became very deaf, and had much fœtid discharge from both ears. This continued a year and then ceased, when he recovered his hearing. He was very thin and delicate, but went on much the same until 1836, when symptoms of decided phthisis set in. He sank and died May 21.

Post-mortem Examination.—Thorax: Heart small; valves healthy. The lungs contained numerous vomicæ. Abdomen: Liver gorged and mesenteric glands large; other organs natural. Cranium: Dura mater strongly adherent to the skull-cap; cortical part of the brain rather soft generally, and central parts also softer than natural, especially the fornix and the floors of the ventricles; the softening was greater on the right side than on the left; Pineal gland and corpora quadragemina very soft; also crura, but to a less degree. Much fluid in the lateral ventricles. Ears: Membranæ tympani destroyed.

P.S.—I have to thank Dr. Davy for this case also.

(To be continued.)

CASE OF OVARIAN DROPSY IN A GIRL AGED 13, PROVING RAPIDLY FATAL.

By SAMUEL C. NOBLE, M.R.C.S., Eng.

From the infrequency with which ovarian dropsy occurs in subjects so young as the one whose case is subjoined, it seems desirable that it should be reported.

A. C., who completed her 13th year on June 13 last, first came under my care on July 25. About a month previous she had observed that her abdomen began to increase in size, her attention being first directed to it by finding that "her dresses would not meet." The enlargement commenced on the right side, and was attended with pain and weight, but with no feeling of sickness. She had never menstruated, nor had there been any symptoms of approaching menstruation. She had experienced difficulty in retaining her urine, which was scanty and high coloured. The bowels were generally constipated, her natural efforts at defæcation being occasionally without result. During the four weeks which had elapsed between the date at which she first observed the swelling and her first visit to me, the size of the abdomen had increased very rapidly. Her previous general health had been invariably good. Both parents were living, and healthy.

When I first saw the girl her features were sunken, and her general condition one of great debility and emaciation. The abdomen was greatly distended, the bulging being most apparent in front and on the right side. The abdominal walls and thorax were traversed by enlarged superficial veins, and a finer network of capillary veins was also visible. The circular measurement at the umbilicus was 34 inches. On palpation the abdominal wall was uniformly tense, and fluctuation very distinct, and not varied by the position of the body. A dull sound was everywhere, and in all positions, elicited by percussion, except in the left iliac region, where it was resonant. The urine was free from albumen, and there was no œdema of the extremities. No development of mammæ or sign of puberty.

From July 25 until August 10 the size of the abdomen increased rapidly, until the circular measurement had reached thirty-eight inches, and it had further increased to forty inches by August 16. Now there was œdema of the extremities and inability to assume the recumbent position; respiration became difficult, and the patient passed restless nights. So much distress was experienced that, after in vain endeavouring to obtain the assent of the parents to an operation for the removal of the tumour, tapping was had recourse to, and about twenty-seven pints of a thin fluid of a pale yellowish colour were drawn off.

About ten days elapsed before the wound completely closed, and during that period a considerable quantity of fluid continued to escape. Immediately after the closing of the wound the abdomen again began to enlarge, until, on September 5, the circular measurement was thirty-seven inches. Emaciation and debility increased, and the bowels became irritable and relaxed. The patient complained of pains in the back, shooting through to the abdomen, and the appetite flagged. Between September 5th and 10th the measurement had increased by two inches, and at this time a separate and distinct cyst, about the size of a fœtal head, and in which fluctuation was distinct, but circumscribed, was perceptible immediately above the umbilicus, showing the tumour to be multilocular. The bowels became less irritable, but more pain was felt on the

right side of the abdomen and back. On September 14 the measurement reached forty inches, the extremities were œdematous, and much distress was again suffered from the great distention. By the 21st the measurement at the umbilicus was forty-two inches, and at two inches below the umbilicus, forty-two inches and three-quarters; the abdomen was very tense, and the extremities were more œdematous. There was much distress in breathing: the patient's strength was fast failing, and emaciation had become extreme. On the 22nd tapping was again performed, and about twenty-eight pints of a limpid straw-coloured fluid were drawn off. During the operation great difficulty of breathing was experienced, but the more distressing symptoms passed off in the course of a few minutes, leaving the patient, however, much exhausted. On the following morning I found her in a state of complete prostration, and evidently sinking; cramping pains were felt in the legs, and the pulse was almost imperceptible. Stimulants failed to rally her, and she died at 7 p.m. on September 23. No autopsy was allowed.

The chief points of interest in the case are—1st, the youth of the patient; and, 2nd, the rapidity with which the disease progressed to a fatal issue. The girl had only just completed her 13th year, and had never menstruated. The origin of the disease must have been very insidious, inasmuch as the earlier symptoms were altogether unobserved, and it was not until the enlargement of the abdomen had begun to cause considerable discomfort that advice was sought. There was no history of any cardiac, renal, or hepatic mischief, and the previous general health had been good. A period of three months only intervened between the first discovery of the disease and its fatal termination. During that time tapping was performed twice,—first, at the end of seven weeks; and, secondly, after a further interval of five weeks. The youth of the patient, coupled with her weak habit, doubtless accelerated the fatal issue. Owing to the thinness of the abdominal walls fluctuation was unusually distinct. It may be very questionable whether, even if the assent of the parents had been obtained, ovariotomy could have been performed with any hope of a successful result, for the rapidity of the growth had so seriously reduced her general health and vigour as to render her almost entirely unfit to undergo so serious an operation.

Kendal.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

SAMARITAN HOSPITAL.

TWO CASES OF OVARIOTOMY.

(Under the care of Mr. SPENCER WELLS.)

Case 1.—*Multiple Ovarian Cyst—Once Tapped—Ovariotomy—Recovery.*

In July, 1863, an unmarried domestic servant, 34 years of age, was sent to Mr. Wells by Dr. Jackson, of Notting-hill-square. She was a cheerful looking woman, and although she said that she had fallen off considerably, still she could not be said to be emaciated. The digestive organs did not appear to be much implicated, although epigastric pain was complained of, and there was habitual diarrhœa. The nervous system seemed also tolerably healthy. There was no dulness over the lungs, but the respiration was somewhat creaking; and as the patient stated that for the previous six months she had coughed and expectorated muco-pus, it seemed just possible that there might be a little scattered tubercle. Against this view was the fact of no hereditary disposition being present, and no hæmoptysis having occurred. The patient lay best on her back: the pulse was 82, and the heart's tones normal. The urine was abundant: contained lithates, but no albumen, and its sp. gr. was 1022. It had to be voided at frequent intervals. The girth at the umbilical level was 36½ inches, the distance from the ensiform cartilage to the symphis pubis 17 inches, and from either ilium to the umbilicus 9 inches. The hypogastric, iliac, and umbilical regions were occupied by a firm tumour which appeared perfectly free and unattached to the abdominal parietes. There was no pain on pressure, and no crepitus. The uterus was normal, moveable, but high up, and pushed backwards by a resistant tumour in the vesico-uterine fossa. Some of the follicles around the nipple were enlarged, the mammæ themselves were virginal, and the areolæ pale.

The history gathered was that in the year 1858 she was attacked with gastric fever. She made a slow recovery, and was never restored to her original health, being much troubled with habitual looseness of the bowels, and pain, especially in the left groin. The catamenia continued regular, as they had always been since the age of 16, but there was a constant leucorrhœal discharge. The patient, however, was able to work, and was in service at Notting-hill. In October, 1861, she first observed a tumour in the right iliac region. It was tolerably hard, and very tender to the touch, but at first it increased slowly, morning sickness and a feeling of weakness in the legs being the only additional symptoms complained of. A year passed away, and the tumour had risen considerably in the abdomen; it approached the mesian line, and nearly reached the umbilical level. Dr. Jackson was called in. He attended to the general health, and it was not till nine months later—that is to say, twenty-one months after the discovery of the tumour—that he thought it necessary to send her to Mr. Wells.

As she did not seem to suffer much from the presence of the tumour, Mr. Wells recommended further delay, and she returned to her situation. Towards the end of the year the tumour began to increase more rapidly, while unpleasant symptoms developed themselves. The legs became œdematous, breathing was often laboured, and pain in the abdomen and thighs was frequent and severe. On February 18, 1864, she was admitted to the Hospital. The girth at the umbilical level had increased to thirty-nine inches; the distance from the ensiform cartilage to the pubic symphisis remained seventeen inches, but from the ilium on either side to the umbilicus it was now eleven instead of nine inches. The abdominal tumour was still free, but it extended into the epigastrium, and fluctuation was well marked. Mr. Wells tapped in the mesian line, and drew off 11½ pints of highly albuminous brownish fluid of specific gravity 1020, which, on being examined microscopically, was found to contain much blood. Three days afterwards the tumour was found to be chiefly on the right side of the mesian line, and to be distinctly lobulated. The diagnosis was "multilocular ovarian cyst, free from parietal adhesions; connection with uterus probably close." The patient was discharged on February 27, and advised to return for ovariotomy. On May 24 she returned. The tumour was as large as it had been previous to the tapping; it bore down on the anterior wall of the vagina, and pushed the uterus far back. The patient expected her menses in a fortnight, and it was arranged that ovariotomy should be performed immediately on the cessation of the discharge. In the meantime iron was ordered, and it was not until July 22 that the operation was performed, in the presence of Mr. Jordan of Manchester, Dr. Bernardet of Paris, Dr. Jackson, etc. Chloroform was administered by Dr. Parson. The incision was commenced one inch below the umbilicus, and was carried four inches downward. The tumour was laid bare, and two large cysts were opened. There were no parietal adhesions, but a large piece of omentum had to be separated from the upper part of the cyst. The pedicle was of the breadth of one finger, and, contrary to what had been expected, was long. It was, however, twisted upon itself, and there was a good deal of œdematous effusion into it, giving rise to the appearance of containing small cysts. The pedicle was secured by the smallest sized clamp, and kept outside without any traction on the uterus. The separated piece of omentum was tied in two portions, cut off short, and returned. There was little hæmorrhage from it. The opposite ovary (left) appeared healthy. The wound was closed by deep and superficial silk sutures.

The weight of the tumour was two pounds, after about sixteen pints of fluid had escaped from it. It was sent to the College of Surgeons, where it was injected, and forms a good specimen of multiple cyst of the ovary.

After the operation there was a good deal of sickness, and at night the pulse had risen to 118. Next day the patient was better; the pulse was 108; the perspiration and urine abundant. On the 24th the sickness returned, and there was a little green vomiting; the pulse was 120, full and soft; the tongue white; the abdomen somewhat tympanitic; the aspect was, however, pretty good. Next morning the catamenia came on, and in a short time the pulse fell to 104. Up to August 1 the patient improved steadily. On that day the clamp was removed, and in cutting through a small piece of slough there was some bleeding, which necessitated a ligature. The little

accident had no ill effect whatever upon the patient; she gradually got stronger, and on August 19 went to the Convalescent Hospital at Eastbourne. She called after her return in excellent health.

Mr. Wells remarked that this case was interesting on account of the error in diagnosing the length of the pedicle. Instead of the pedicle being absolutely short, it was only apparently so, on account of its being twisted upon itself. In other words, the rotation of the tumour and twisting of the pedicle pulled up the uterus, and depressed the anterior wall of the vagina in such a manner as gave a false impression of close connexion between the cyst and the uterus.

Case 2.—Non-adherent Cyst, Never Tapped—Ovariotomy—Recovery.

A married woman, 59 years of age, was sent to Mr. Wells in June, 1864, by Dr. Halley. She was suffering from enlargement of the abdomen and metrorrhagia. She had had four children and one miscarriage, the last pregnancy having occurred nineteen years before. Nine years after the birth of the last child, that is to say, when the patient was 49 years of age, the catamenia ceased. For the next eight years there was no attempt at menstruation, but two years ago bleeding recommenced. At first it appeared at intervals, but since the beginning of 1864 it had been almost constant. It was in the beginning of 1863, six months after the supposed reappearance of the menses, that the abdomen was first observed to be increasing in size. At first the increase was very gradual, but since April, 1864, it was much more rapid, and when the patient consulted Mr. Wells her girth at the umbilical level was 40½ inches, the distance from the umbilicus to the symphis pubis 9½ inches, to the ensiform cartilage 9½ inches, to the right iliac spine 11½ inches, and to the left iliac spine 12 inches.

The patient had never discovered any distinct tumour, but Dr. Halley had detected a multilocular ovarian cyst. This tumour, in which fluctuation could be detected, extended upwards several inches above the umbilicus, its margin reached the false ribs on both sides, but it was rather more developed to the left than to the right of the mesian line, leaving the right iliac region almost free. Just above and rather to the right of the symphisis was a projection of the tumour, which, from its shape and feeling, might very well have been the uterus slightly hypertrophied.

There was a circular contraction of the vagina near its fundus, probably due to old inflammation. The uterus was very high, and the os consequently nearly out of reach. The patient's health had given way considerably under the continued hæmorrhage. There was no pain, but a feeling of numbness in the right thigh had been present for twelve months. The diagnosis was "multilocular ovarian cyst free from adhesions."

The patient was advised to go into the country, and when her general health improved and the tumour enlarged, to come into Hospital for ovariotomy. She was admitted in October, and the metorrhagia was found to depend upon the presence of a number of small vesicular polypi on the cervix uteri. Mr. Wells determined, however, not to interfere with these polypi before performing ovariotomy, as the sudden suppression of a discharge which had become habitual, and the removal of the tumour might together have led to too great an alteration in the circulation.

On November 2, 1864, he performed ovariotomy in the presence of Dr. Hall Davis, Dr. Halley, Dr. Griffith of Peckham, Dr. Ritchie, and Dr. Wright, chloroform being administered by Dr. Parson. There were no adhesions, a large cyst was tapped, and the tumour easily turned out. The pedicle was of the breadth of two fingers, rather short, and was therefore secured close to the neck of the cyst with a middle-sized clamp. There was a little superficial oozing, and one bleeding point had to be tied. The opposite ovary was healthy or atrophied. The wound was closed and the edges brought together by several deep and superficial sutures of silk. One of the former was required below the clamp. The operation was only remarkable for its extreme simplicity. The fluid removed during the operation amounted to eighteen pints; it was dark and mucoid.

The patient went on remarkably well after the operation. The sutures were removed on the fourth day, the wound being united throughout. The clamp was left till the tenth day, when it separated spontaneously. She was convalescent a fortnight after operation, and was sitting up rapidly gaining strength a week later.

These two cases make up 57 in which Mr. Wells has performed ovariotomy in the Samaritan Hospital. The result has been 41 recoveries and 16 deaths—a mortality of 28 per cent.

The total number of patients suffering from ovarian disease who have been admitted to this Hospital under Mr. Wells's care since his first case in 1857 to the present month has been 114. Of these 114 patients, 57 have been treated by ovariotomy, with the result just stated. Of the remaining 57, 5 were subjected to an exploratory incision, but ovariotomy was not proceeded with. In 6 others iodine was injected, once or oftener. In 5 tapping by the vagina was practised; and in 1 both by the vagina and by the abdominal wall. In 7 no Surgical interference was advised or submitted to; and in 33 simple tapping through the abdominal wall was performed. In some of these 33 patients tapping was repeated several times; and many of them who have been relieved for a time have been advised to return for ovariotomy. In reply to a question as to the proportion of cases rejected as too unfavourable for operation, Mr. Wells says:—"With the one single exception of a woman who died with cancer of both ovaries and ascites, I have never refused to perform ovariotomy for any patient who wished to submit to it after the risk had been explained to her. It is not often that a patient desires ovariotomy unless she is informed that her case is a favourable one, or that the risk is not much above the average. But in some cases I have been called upon to do it, and have done it, although I was obliged to tell the patient that the hope of recovery was only slight. In nearly all the cases where I have recommended delay, and the patients have left the Hospital (with or without tapping), it has not been because the cases were unfavourable for ovariotomy, but directly the contrary, or because the ill-effects produced by the disease were not sufficiently serious to justify me in recommending the patient to submit to so hazardous an operation as ovariotomy."

GUY'S HOSPITAL.

TREPHINING FOR EPILEPTIFORM CONVULSIONS FOLLOWING INJURY TO THE HEAD—DEATH—AUTOPSY.

(Under the care of Dr. OWEN REES.)

William G., aged 27, admitted April 6, 1864, for epilepsy. Eighteen months ago, when in perfectly good health, he fell from a ship, and struck his head. He became immediately insensible, and was so for some time. Three weeks after the injury he had his first fit. He had never been able to work since.

His speech is somewhat incoherent, and he takes a little time to collect his thoughts before answering questions. He had frequent, almost daily, attacks of epilepsy, but they were short. He did not foam at the mouth, and did not bite his tongue. He had severe pain in his head, he seemed lost, and had difficulty in answering questions. There was a scar on the left side of the head, at the part where the head was struck. A blister was applied. Iodide of potassium (gr. iij.) with liq. potassæ (ʒss.) was given three times a-day. He subsequently had an abscess on the neck, but this got well again, and he was discharged relieved May 23. The pain in the head was gone, and the fits were somewhat less frequent.

On June 1 the patient was readmitted, as the fits were again frequent—twice as frequent as before. He seemed to have great pain in the head, and yet could not answer any questions. He got worse after admission, taking little food, and had fits at very short intervals, and almost constantly. This being the case, Mr. Hilton was consulted, and it was agreed on, after several consultations, to trephine. This was done, June 22, at the seat of injury, where the bone was somewhat raised on the left parietal bone, near to the superior longitudinal sinus. The bone was thought to be a little more solid. The dura mater was not opened. Ice was applied to the head. For thirty-six hours the patient had no fits, but after that interval they were more frequent, occurring daily, until the patient's death, four days after the operation. Head symptoms came on, and he died comatose.

Post-mortem.—On removing the scalp the trephine hole was seen in the bone near to the top of the head on the left of the middle line; purulent matter was running through it. On removing the calvaria, a round patch of lymph was seen upon the dura mater, corresponding to the trephine hole. It was situated to the left side of the longitudinal sinus. A probe was used in order to ascertain if there was any laceration of dura mater, and on passing it round the circumference of the

patch, it passed through a small ragged opening, but whether the opening was caused by a softening process, or caused by the operation, was not very evident. On turning back the dura mater, acute arachnitis was seen on the left side of the brain. The hemisphere and the arachnoid surface of the dura mater were both covered with a thick layer of purulent lymph, and some of it poured from the arachnoid cavity. The right side of the brain was quite healthy. A careful examination of the brain showed no disease, the only morbid condition being the recent and acute arachnitis. An examination of the calvaria failed to show any marked disease. Over the parietal bone, on the left side, there was a slight projection, and it was thought that in the neighbourhood of the trephine hole the bone was somewhat thick, but this appearance was so slight that probably it would not have been noticed unless especially looked for.

WESTMINSTER HOSPITAL.

ENCHONDROMATOUS (?) TUMOUR OF THE TIBIA—REMOVAL AND SUBSEQUENT AMPUTATION OF THIGH—DEVELOPMENT OF MEDULLARY CANCER IN THE STUMP.

(Under the care of Mr. BROOKE.)

The following is an interesting case of tumour of the tibia, which, at the time of removal, presented the naked-eye appearances of enchondroma, though the subsequent development of medullary cancer in the thigh would tend to show that the tumour itself was of a true malignant character. Although it could hardly have affected the final result, it may be questioned whether amputation at or above the knee would not have given a better result; but this view was over-ruled at the consultation held upon the case at the time of the operation, when, apparently, the whole of the disease was extirpated. We remember to have seen a remarkable example of the successful removal of a similar tumour in Mr. Fergusson's practice some time back.

June 7, 1863.—Hannah S., aged 16, admitted into Percy Ward with tumour of the upper part of the left leg.

History.—Six months ago the patient fell and struck the left leg below the knee, and the part began to swell soon after, and has continued to do so to the present time. She has had a good deal of pain in the tumour, but has not suffered in her health. Her mother died in decline, and her father when she was young. She has no brothers or sisters.

Mr. Brooke considered the tumour to be of an osseous character, and applied a blister, the patient taking pil. hydrarg. c. papav., bis die. On June 26 she was ordered mist. gent. c. rhei., ℥j., bis die; and emplas. hydrarg. was applied to the tumour. On July 1 the patient began taking iodide of potassium in gr. ii. doses, which was gradually increased to gr. vii. on the 16th, when the patient began to suffer from the medicine, and the dose was reduced to gr. iii. Belladonna plaster was applied to the tumour.

July 23.—The case was transferred to Mr. Heath's care, Mr. Brooke leaving town. There is now a tumour of the size of an orange immediately below the inner tuberosity of the left tibia, not involving the knee-joint. It is of bony consistence, and is not tender to the touch; but the skin over it is hot, and the patient complains of a good deal of pain in it, particularly at night. The measurement around the limb and over the tumour was 13½ inches. A gutta-percha mould of the tumour was taken in order to record the condition at this date.

24th.—As the patient has been somewhat reduced by the iodide of potassium, Mr. Heath ordered her ferri and quinæ cit., gr. iv., t. h., and simply to apply lotio plumbi to the tumour.

28th.—The heat of the skin has disappeared, and the patient feels stronger. Mr. Heath introduced a grooved needle into the tumour, which penetrated for half an inch, but gave exit to no fluid.

August 10.—The tumour has increased in size steadily, but slowly, and now measures 14 inches round the limb. Patient's health improved.

18th.—Mr. Heath proceeded to operate under chloroform, with the intention of removing the tumour, if possible; and if not, of amputating through the knee. The skin was reflected from the tumour, which proved to be, as expected, of an enchondromatous character. A large portion of the growth was cut away with the knife, and the remainder was removed with bone forceps and gouge until the surface of the tibia was clearly exposed. Great care was necessary in removing the upper part to avoid opening the knee-joint, which it very closely approached. The tibia appeared to be somewhat expanded beneath the tumour, but its surface was apparently healthy. The hæmorrhage was not very considerable, and no vessels required a ligature. The wound was filled with lint, and a bandage applied over all.

19th.—The patient had a fair night with an opiate draught. Slight oozing from the wound.

20th.—A considerable effusion has taken place into the knee-joint. The wound is beginning to suppurate. Ordered myrrh lotion, and a poultice to the knee.

27th.—Knee-joint much smaller, though still tender to the touch; granulations at the margin of the wound exuberant and unhealthy; bone in centre of wound still bare.

Mr. Heath left town, and the case was transferred to Mr. Power's care. In a few days symptoms of acute inflammation of the knee-joint came on, and great constitutional disturbance; and Mr. Power was compelled to remove the limb by amputation through the thigh on Saturday, September 19. The joint was full of pus, and the spot from which the tumour had been removed still bare.

The patient ultimately made a good recovery, and was discharged to Walton December 18, 1863.

January 27, 1864.—Re-admitted to be fitted with an artificial leg. She was in the Hospital for a month, when she fancies she caught cold in going to chapel; the stump became painful and very much enlarged. From this time she suffered very much pain, especially at night; and the stump became enlarged to the size of twenty-eight inches in circumference. An obscure sense of fluctuation being present, on May 3, Mr. Brooke made a puncture, and evacuated two quarts of dark sanguinolent fluid, and a very large quantity drained away in the dressings. The patient's strength became much reduced, and she suffered very much from want of rest.

May 9.—Mr. Brooke made another puncture, and again evacuated a large quantity of fluid.

12th.—The punctures have sloughed, and there are now large holes in the skin from which there is constant discharge.

15th.—Patient much exhausted; the skin at the lower part of the stump has given way at other points; and the offensive discharge is very great.

May 19.—Died this morning.

Post-mortem.—The skin of the stump was found to be much infiltrated with soft cancer, which formed a large mass connected with the extremity of the femur. The hip-joint was healthy.

Poisoning by Lead.—The following details were educed at an inquest lately held at Ratcliff. The investigation was into the circumstances attending the death of Elizabeth Wood, aged *55*, who had died in violent convulsions. About four months ago she sought and obtained work at Messrs. Johnson's whitelead factory in Limehouse. She was then in good bodily health. She laboured there from 6 o'clock in the morning till 6 o'clock in the evening, and her wages for these twelve hours was 1s. 6d. These were the regular hours, but sometimes the work went on till 9 o'clock, or even till 11 o'clock at night, and then the last five of these seventeen hours was reckoned "overtime." There were about twenty women at this factory thus employed, and the evidence recorded that they were for the most part young. The unfortunate woman, who commenced the work well, soon fell ill, poisoned by the occupation. Her joints became weak, her body wasted, her teeth became black, and she got palsied. With the first effects she went to a Medical man, who told her she must inevitably die from the lead poisoning unless she left the work. But she asked, what could she do? She had her old mother to support as well as herself, and she had no choice but to go on or starve. She did so; and first was unable to work on all days in the week, then could struggle only on some, and finally could not get to the place at all; then she was seized with convulsions and died. The Doctor to whom she had been gave evidence that her death resulted from lead poisoning, accelerated by want of food. Doubtless she was rendered unable to take or eat sufficient food by the state of her teeth and gums, etc., from the poisoning of the blood. Some constitutions gave way under the action of the lead poisoning much sooner than others. The jury gave a special verdict, embodying with the Medical reasons given in evidence an opinion that, "considering the deadly nature of the occupation, the hours of employment in white lead factories are too long, and also that it would be desirable that there should be a systematic inspection of such establishments by a Government officer."

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Medical Times and Gazette.

SATURDAY, NOVEMBER 26.

MODERN SYPHILOGRAPHERS.—No. III.

The slowness with which the doctrine of the contagiousness of secondary syphilitic lesions has worked its way into general belief has been not a little curious. The older writers, as we have seen, fully believed in it, but it found no favour with subsequent observers. Statements about the mode of the spread of syphilis were always quoted with the incredulity, if not with the smile of contemptuous unbelief, with which the statements of the causes of the spread of syphilis among monastics were received. The monastics of that time had sought, no doubt, to cover the proofs of their occasional immorality under the assumption that their syphilis had been contracted by other than the ordinary channels. The belief of that age was a most exaggerated and ill-defined one; but that it contained, nevertheless, a large element of truth, we have been taught by more than one sharp stroke of experience.

Now, we have two things to account for in the history of syphilis, which cannot be squared with the doctrine that the disease is contagious during one only, and that a limited, stage of its manifestations, viz., 1, the marvellous rapidity of its spread, during the earlier periods; and 2, its continuance from that time to the present day, without that vigour which marked its earlier history—rather with a progressive attenuation of the disease from the 15th to the present century.

Occurrences and observations in our own time have thrown some light on this subject. The lamentable outbreak of syphilitic disease at Rivalta recalls those periods in its earliest history when the sphere of its contagious influence appeared to be far greater than now, its spread being so rapid in its advance and wide in its circle as to resemble the spread of an epidemic rather than the slow and progressive steps of a disease held to be contagious only during one, and a limited, stage in its progress in the individual. The symptoms of the disorder amid the rural population of this Italian village were quite parallel to those described and handed down to us by the earlier writers. During its outbreak in the fifteenth century, as in that of the nineteenth, the cutaneous affections resembled a form of variola; papular and lenticular spots diffused over the surface of the body, becoming pustular, and degenerating into chronic sores, the outbreak often ushered in by constitutional symptoms of a pyrexial type. (a)

The differences of life, the far greater attention to cleanliness, and the differences in the customs prevailing in the fifteenth and present centuries, afford a probable explanation of the great rarity of those occurrences which were formerly observed. Had the advance of this disease been as rapid as it appeared to have been then, the poison must inevitably have increased enormously and affected all classes.

(a) Dr. Marston's second paper, vol. xlvi. Medico-Ch. *Transactions.*

So long as inoculations were made upon those already syphilised the results could only be negative. Hunter, we know, thought that the primary manifestations were alone contagious; and Ricord, regarding the true chancre and the chancroid as the products of one and the same seed, and perceiving the facility with which a successful inoculation might be made from these, as he thought, was warranted in endorsing Hunter's doctrine with the whole weight of his authority. Had not Hunter been deceived by his own experiments, and under the influence of a foregone conclusion, some of the instances related by himself must have led him to a different conclusion. Take the cases in which syphilis was supposed to have been communicated through the transplantation of teeth. In two instances, a *month* after the operation, some ulceration and disease appeared in the neighbourhood of the transplanted tooth, and symptoms very suggestive, if not absolutely characteristic—of syphilitic disease—appeared, which were cured by mercury. The period of incubation—one month—before the manifestation of any diseased action is, in itself, exactly parallel with the facts of syphilitic inoculation, as read by the light of recent observations.

The first blow given to Hunter's dogma, was the observation that infants, suffering from congenital or inherited syphilis, occasionally infected their nurses, and most ingeniously was the effect evaded, by denying that it had any existence in fact. In 1835 the doubtful inoculation of Wallace took place. So the matter slumbered until about ten years ago, when Waller of Prague, Rinecker of Würzburg, Gibert and Vidal of Paris, and others advanced the evidence of those facts which were to be the era of a revolution, against the effects of which we have now to guard ourselves, remembering that the dawn of one part of the truth is too often the signal for the setting of another part.

Diday, in his book on "Infantile Syphilis," translated by the Sydenham Society, records several instances of the transmission of syphilis to nurses; but he was still so far bound by the shackles of an old belief as to be led to infer that congenital syphilis was peculiarly virulent, and alone capable of being communicated by contagion.

M. Rollet advanced our knowledge by indubitably showing that syphilis had been communicated to adults by the inoculation of fluids obtained from secondary lesions. The most conclusive of his proofs was obtained from the spread of syphilis among some workmen at a glass-blowing factory. In this glass foundry it was the custom of the men to work by threes in blowing the bottles. Now, one of these workmen, whom we will call the first, was suffering from constitutional syphilis, and, among other manifestations, laboured under sore-throat, and excoriated patches upon the labial mucous membrane. From this source the two remaining workmen of the set of three contracted a syphilis, which commenced with true chancriform lesions of the lips and submaxillary adenitis. We need not enumerate the other instances recorded by Rollet, for this observation assumed all the exactitude of a direct and carefully performed experiment.

In 1859 Mr. Henry Lee published his paper on Secondary Syphilitic Inoculation in the *Medico-Chir. Trans.*, instances of which he adduced, in common with some from Rollet and Viennois. The doctrine by this time had taken some hold on the Medical mind, and the way to its reception was cleared by the previous discovery in 1855-6, by M. Clerc and Mr. Lee, of the non-inoculability of the true indurated or infecting chancre on the same individual. Czermak, by the way, in his book on the "Laryngoscope" (Syd. Soc., p. 67), mentions a curious example of the contagiousness of constitutional syphilis. He says that an old Rabbi came to Pesth for advice as to a severe hoarseness. He had disease of the larynx, which Czermak believed to be syphilitic; and adds, "this man was suspected to have communicated syphilis to several children in practising the operation of circumcision;" for there exists, he adds, among the Jews the abominable habit on the part of the

operator, of sucking the yard of the circumcised infant.(b) Then came the proofs of the transmission of syphilis by way of vaccination, in 1860 by Viennois, and lately by the lamentable occurrences at Rivalta, wherein eighty persons were infected, consequent on the transmission of syphilis to forty-six out of sixty-three vaccinated children. Another step, and we have reached the limits of our observations. It had not yet been quite proved, that the blood alone of a syphilitic adult was capable of being the vehicle of contagion. Experiments, as far as they went, were rather against the view. The most conclusive, as well as the most recent, experimental proof of this, was obtained by Professor Pellizzari, at Florence. On February 6, 1862, three inoculations were made, and in one of them with a positive result; a papule having appeared on the 25th day at the point inoculated, which gradually assumed the characters of a true syphilitic lesion, with the attendant adenitis, to be succeeded by constitutional symptoms and a cutaneous syphilide, forty-one days afterwards. Nothing was wanting, apparently, in the shape of every possible precaution for rendering this piece of experimental proof conclusive in character. We have no space—and our reader has, probably, but little stock of patience remaining—to enter in detail into the vexed question, as to whether the semen possesses the same contagious properties as the secretions of the primary and secondary lesions and the blood. There is no doubt that the seminal fluid of a syphilitic father may infect the ovum, and so, the mother through the fœtal circulation; and we may call attention, in passing, to the collateral and experimental evidence obtained by Mr. Savory a few years ago, who found that a bitch exhibited symptoms of poisoning when the puppies, of which she was pregnant, were subjected to the action of a poison. But can the mother be infected by the semen without her having been pregnant? This has not yet been satisfactorily demonstrated, and we therefore pass out of the range of scientific observation into the realms of probabilities only.

Ancient writers evidently believed that every secretion—even the breath of a syphilitic patient—could be the vehicle of contagion, but of this we have no proof; and as to the breath being so, we presume there is no one who believes in its possibility; and it would require a very large amount of experiment of the most exact kind to upset the results of our ordinary experience that it is not. This, however, we may say, that we ought to hesitate before giving a decided opinion as to the absolutely non-contagious properties of any of the fluids obtained from the body of a syphilitic patient.

We must, parenthetically, remark—what it is important to remember—that in all the observed cases the disease ran the usual course, viz., some lesion of the part inoculated, with its concomitant glandular enlargement, followed the implantation of the virus, and that it was not until some time after this occurrence that manifestations of secondary syphilis appeared.

The initial lesion was, almost invariably, a papule (not a pustule), which became a tubercle, and its appearance was preceded by an incubationary period of from nine to forty-two days.

If we acknowledge, however, the force and truth of these positive results, the question comes—How are we to account for the numerous inoculations of the products of secondary syphilitic lesions with negative results? This has not yet been fully worked out, but the probable means of its explanation and answer may be drawn from one or other of the following sources:—

1. *Conditions in the person of the recipient.*—In many of the cases it is probable that the individuals inoculated were protected by the presence of a syphilitic taint, previously acquired or inherited; that some of these were proof against such inoculation from some idiosyncracy of constitution, like that which protected one of the dogs experimented on by Majendie against the hydrophobic virus,—particularly when we remember that in many of the instances recorded of late years the inoculations were attended with negative results (as in Pellizzari's cases, in which he failed in two of the three inoculated with the blood of a syphilitic in 1862, and in two instances previously, in 1860.) The existence, also, of some other disease at the time of the experiment, may have nullified the results of the inoculations. Without resting upon the dogma of Hunter—that two constitutional morbid processes cannot go on at the same time—which appears to have been shaken of late years, we know that some diseased conditions are antagonistic to that of syphilis, for Diday, Rodet, and Rollet state that inoculations with the syphilitic virus (in one instance obtained from a chancre) have invariably failed in cancerous subjects.

2. *The source of the virus.*—We possess no reliable data as yet as to the different degrees of potency or activity (if any) in the virus in the different degrees of syphilitic infection, or during the different stages of its manifestation. There can be very little doubt that the activity of the virus in the constitution is not the same in all stages of the disease or in the intervals between its manifestations, and it would require a very careful series of observations to determine the periods of its activity in the constitution, and the periods of such activity in the separate local lesions furnishing the products to be employed in inoculating, as well as the exact nature of these—pus or otherwise.

(b) This is quite true; it is described in South's "Chelius," in the "Surgeon's Vade-Mecum" and other surgical works. But it is gradually falling into disuse; the operator now contents himself with taking a mouthful of wine, and spurting it on the bleeding surface, without taking the circumcised member into his mouth.—Ed.

THE WEEK.

MEDICAL SERVICES IN JAPAN.

In the despatches describing the late naval action in Japan, honourable mention is made of the services of the Medical officers in the following terms:—

Admiral Kuper writes,

"Mr. D. L. Morgan, Surgeon of my flagship, has called my attention to efficient service rendered by the Medical Staff employed on shore under his directions, and to their devotion and attention to the wounded."

Captain Alexander, of the *Euryalus*, commanding the Naval Brigade, reports that—

"The Medical officers, Messrs. E. A. Birch, Samuel M'Bean, and J. T. Comerford, Assistant-Surgeons, were exceedingly prompt and constant in their attention to the wounded."

And Lieutenant-Colonel W. G. Suther, Royal Marines, thus mentions the Medical officers serving under him:—

"The Medical Staff of Royal Marines, under Dr. C. K. Ord, were most active and prompt in their attendance to the wounded."

Among the officers promoted for their services on the occasion, Mr. Richard Lovel Bluet Head, Assistant-Surgeon, is made Surgeon.

PENALTY FOR RECEIVING A LUNATIC PATIENT.

At the Central Criminal Court on November 23,

"Mr. Henry Wilkins, a Surgeon, who was convicted of a misdemeanour at the September Sessions of this Court in unlawfully receiving into his house one Eliza Mitten, a lunatic, his house not being a Hospital or licensed, surrendered to his recognisances to receive the judgment of the Court, which had been respited.

"Mr. Baron Bramwell adjudged the defendant to pay a fine of £50.

"Mr. Wilkins at once paid the money and left the court."

It will be remembered in this case that Mr. Wilkins was convicted of what was in reality nothing more than a neglect to comply with a form laid down by an Act of Parliament, of which it is quite possible he was ignorant. Not a vestige of a shade was thrown on his moral character. Under these circumstances we think that a much smaller fine than £50 would have been amply sufficient to have satisfied justice. Contrast this with the fine of 1s. inflicted by a magistrate on a druggist

for falsely assuming the title of Surgeon in defiance of the Medical Act, on which we commented last week.

THE QUEEN *v.* THE LOCAL BOARD OF HEALTH OF GODMANCHESTER.

This case, which was tried before the judges of the Queen's Bench on November 23, is of some importance to persons interested in sanitary matters, because in it their lordships ruled that the fact of the drains from some dwelling houses pouring their contents into a natural brook did not convert that brook into a "sewer" throughout its whole course under the meaning of the Public Health Act, and consequently that the duty and expense of clearing the brook or stream throughout its length did not rest with the Local Board. We have no doubt that the decision of their lordships is quite right in law, but we really wish that it could have been ruled otherwise, as there would then have been another and, as local authorities would probably think, a most cogent reason against impoverishing the surrounding land by polluting every brook and river in the neighbourhood of a town.

ST. THOMAS'S HOSPITAL.

The dispute between the "corporation" Governors and the "donation" Governors of St. Thomas's Hospital as to the right of selecting a site for its re-erection, is, we presume, now finally settled. The highest law officer of the Crown has pronounced in favour of the right of the donation Governors to choose the future position of the Hospital by dismissing the appeal of the corporation Governors against Vice-Chancellor Wood's decision, with costs. Stangate is therefore to be the site of St. Thomas's. No doubt the building will be an object of interest for the passengers in the penny steamers, and will harmonise tolerably with the Houses of Parliament and Lambeth Palace. We have no fear that the Grand Committee and their architect will be sparing of money, and we hope that the designs will at least show average skill both as regards usefulness and appearance. We have never been advocates for the Stangate site. We believe that no sane Medical man would choose to treat a private patient suffering from pneumonia, fever, pyæmia, or cholera close to the mud of a tidal river, running through a vast city, if he could obtain for him any other lodging where there would be less fog and damp, and filth. We believe that an opportunity which may never occur again of constructing what might have been the finest Hospital in Europe, on a really healthy site, has been lost. However, we shall be very glad to find that our fears have been unfounded, and that the future St. Thomas's is really as healthy as it will be undoubtedly convenient of access.

THE MAIN DRAINAGE PLAGUE.

As we surmised, the disease which has been so prevalent at Woolwich proves to be scarlatina, and in all probability unconnected with the state of the Thames. The heading of this paragraph is, therefore, not applicable to any epidemic except that of the *cacoethes scribendi*, which has of late seized on engineers, committee-men, and contractors. The charming variety of opinion on which we remarked last week offers but little prospect of a compromise, and we can only hope that the "wisdom of Parliament," in whatever part of Westminster Palace that abstraction may be supposed to exist, will step in and authoritatively settle the matter. There is no doubt that the scheme of Mr. Hope and the Metropolitan Board has some points in it to recommend it. Let the ratepayers once get over the shock of giving away the sewage of London for fifty years, and it will not seem so utterly bad. In the first place, it will make use of the existing works, which will not be relegated to the same category as the Thames-tunnel, the great steamship, and other feats of remarkable, but not very remunerative, engineering skill. There is no doubt that this gives the scheme its peculiar attraction for the Metropolitan Board. Mr. Hope is the man who steps in to rescue them from the disgrace of perhaps the most extraordinary and wasteful public blunder which has been committed since the Crimean war. Can we wonder at their unanimity in supporting him? The tunnels were originally constructed to convey the sewage to the Thames. Parliament, by its Committee, has interfered, and this suicidal error is not to be permitted. Other schemes would pour the sewage over the immediate neighbourhood, and enrich the London basin. But then what would be the use of the aforesaid tunnels, and where would be the chance of knighthood for Messrs. Thwaites and Bazalgette? Mr. Hope steps in and says, "Give me the sewage, and I'll use the tunnels." The Metropolitan Board hail him as a heaven-sent genius, and place the sewage and the tunnels at his disposal. Although the ratepayers cannot have the same personal interest in the matter as the planners and architects of the Main Drainage blunder, it will yet be a consolation to them to know that their money has not been altogether thrown away, but is to be applied to the useful purpose of enriching Messrs. Napier and Hope. But a still more attractive feature is that they are not to be called on at present to pay for any more building and excavating. The prolongation of the tunnels to the Maplin sand is to be paid for by the contractors. If the sewage is to fertilise Hampstead and Finchley, it will cost money to take it there; and, whatever may be the benefits to accrue to future ratepayers, we suspect that the present generation would agree with the wide-awake gentleman who observed that, "as posterity had done nothing for him, he did not see why he should do anything for it." Another argument for the plan is that the manuring of sand seems to have answered well at Edinburgh, at least for the production of a certain kind of grass, and what has proved remunerative at Craigentinny may pay Messrs. Hope and Napier, and fifty years hence the then ratepayers. Mr. Hope and his engineer, Mr. Hemans, also have taken counsel from the results of Dr. Brady and Lord Montague's committee, and have considerably modified their original scheme. They are not going to reclaim all the Maplin quicksands at once, nor are they going to commence building immediately their embankment four miles out at sea; and they now state in the *Times* that 80,000 acres in Essex are to be brought under the influence of the sewage before agriculture encroaches on the domain of the shrimps. Altogether it seems clear that the ratepayers have an admirable opportunity for exercising the virtue of faith. They are the shuttlecock, and Parliament and the Metropolitan Board hold the bats. Whatever scheme is now adopted it cannot be so bad as the original one of filling up the estuary of the Thames with the guano of the metropolis.

OXFORD EDUCATION FOR MEDICAL MEN.

It gives us great pleasure to quote the following remarks from the *Dublin Daily Express* of November 18, on the subject of University Education for Medical Men. We have only to remark here that our remarks were confined to *Oxford*, and judging of the thing as practical men, we repeat that the idea of an Oxford education for the mass of members of our Profession is quite unattainable, and that they must be content with the next best thing—viz., a prolonged education at a good public school. Our contemporary clearly undervalues the English public schools, and does not believe, as we do, that the work in the highest form under the head master is just of the kind that he eulogises, and that the social and other incidental advantages are of the same kind, though not so great. A youth who, at 19, can say that he has been in the sixth form at Rugby, Harrow, Winchester, Westminster, or Marlborough, has no bad starting-point:—

"Bichat has shown—and the experience of every practical educator will confirm his showing—that the order of the development of the faculties is—first, Memory, then Reason, and lastly, Judgment. The task of memory is accomplished in the mastery of language and the technicalities of elementary science, which constitute the staple of the education of the

schoolboy. The rigorous routine of deductive science, as exhibited in the Mathematics, and those physical sciences which can be mathematically treated, is the appropriate work of Reason, and awaits the young man on his entrance into college. The more difficult task of reasoning from probability, and of analysing those masses of evidence in which truth and falsehood are lying, as it were, in an amalgam, the great task of human life, in short, and that which awaits us in all our practical pursuits, and to which moral and metaphysical speculations are the appropriate introduction;—this is the function of Judgment, the last and highest faculty which is developed in the full manhood of the man. Of course it is possible for the mind to stop at any intermediate stage. But the mind is dwarfed. The public school education sends forth a mind in the memory period of formation. Is it of no importance to the soundness and perfection of the intellect that reason should be developed? that judgment should be evolved? that a harmonious system of well-developed faculties should be attained by a liberal and generous education, which cannot with safety be arrested at any of its earlier stages?

"This, in our opinion, is the true ground on which the utility of a University education rests. It cannot be asserted fairly that the specific training for the Medical Profession is itself a substitute for a liberal education. As mastered by any mind except one imbued with the philosophical and scientific spirit, the science of anatomy and the kindred sciences are not exercises of judgment or of reason. They are mere manifestations of the boy's faculty of memory. Instead of at once dilating and developing the mind, they narrow and distort it. The mind is, in fact, miseducated and misdirected. Science degenerates into "shop," and scientific language is degraded into "slang," There is no evading the difficulties of the case. The practical exigencies of the Profession may compel it to recognise a number of skilful, perhaps, but uneducated Practitioners; but the laws of intellectual development are rigorous, and the claims of that mighty abstraction "society" are inexorable, and no practical skill or mechanical facility, or happy knack, will ever make an educated man, or enable an uneducated man to be received by society as a gentleman or scholar.

"The University of Dublin, we again repeat it, is entitled to the gratitude of the whole Medical Profession for the stand which she has made in behalf of education. She permits herself to be undersold by her competitors, she allows her Medical School to be diminished, she submits to the diminution of her revenues—but, to her glory be it spoken, she will not submit to lower the standard of Medical education in this country. In addition to this, she is entitled to a credit which even the University of Oxford cannot claim. She places no embargo upon poverty; she compels no student to undergo the expense of collegiate residence; she only insists that every student, whether rich or poor, resident or non-resident, should study her curriculum and present himself at her examinations. She is resolved, in short, that no Medical man shall issue from her Medical School bearing the honourable addition of M.D. who is not indoctrinated with the elements of the humane letters,—who is not imbued, as far as teaching can imbue him, with the philosophic and scientific spirit, who is not, by a liberal and liberalising education, entitled to be received in all societies as an educated gentleman."

FROM ABROAD: RE-VACCINATION IN BELGIUM—PRECAUTIONS IN VACCINATION—DENOUNCEMENT OF ILLEGAL PRACTITIONERS IN ITALY—ANIMALCULÆ GENERATED IN SECRETIONS OF THE MUCOUS MEMBRANES.

M. Vleminckx, the President of the Belgian Academy of Medicine, has made an interesting communication to that body upon the subject of re-vaccination. In a paper read in 1862 he gave an account of 2018 re-vaccinations, and now adds 823 additional observations, making in all 2841, the subjects being inmates of prisons and penitentiaries. In 1518 of these subjects exhibiting distinct vaccination marks, re-vaccination succeeded in 308, or 19 per cent., and in 599, who had distinct cicatrices from variola, it succeeded in 178, or 30 per cent. An analysis of the ages of these subjects leads M. Vleminckx to the following conclusions:—1. Re-vaccination is successful in proportion to the length of time that has elapsed since the first vaccination or an attack of variola. 2. It may be generally dispensed with prior to the twenty-fifth year. 3. From that age its protective power progressively increases. 4. The fact of its proving unsuccessful on the first occasion should not prevent our having recourse to it at a future period, as we have no proof that the receptivity may not have returned in the interval. 5. The re-vaccination of children at schools is useless, for not one of the 2841 cases manifested a return of receptivity prior to the 15th year. Do these principles equally apply to the subjects of small-pox? To answer this question we must first be able to determine whether the manifestation of receptivity of vaccine virus by them positively indicates a condition of the economy which does not render them exempt from a second attack of variola. This is probable, but not demonstrated. However this may be, such persons should not hesitate to submit themselves to re-vaccination, which, while it is itself a harmless procedure, may save from a second attack of variola. M. Vleminckx adds that every precaution has been taken to secure the greatest exactitude in these figures, all cases having been rejected which seemed to admit of a shadow of doubt. The subjects of re-vaccination had always been duly vaccinated, or had had undoubted variola; and where signs of this were not distinct, the re-vaccinations were not counted, although successful.

Effectual vaccination is our great safeguard; and the Italian Government, impressed with this fact, has, on the recommendation of the Sanitary Council, issued a circular to the official vaccinators, intimating the following precautions in order to secure its proper performance:—1. The virus should be taken exclusively from well-formed and perfect pustules which have undergone a regular course and development; and it should never be taken from ill-formed pustules, or those which, from scratching or other cause, have undergone alteration in their texture. 2. The virus is obtained in its greatest limpidity between the sixth and eighth day, counting from the period of vaccination, or between the third and fifth day after the first appearance of the pimple. 3. Lymph which is mixed with blood or contaminated with any other humour should be rejected. In order to obtain the lymph pure, care must be taken to puncture the pustule superficially, and with gentleness, at the upper part of its margin, avoiding to perforate its centre, which contains purulent or other heterogenous matter. 4. The vaccinator should take care not to exhaust all the pustules, and avoid irritating them by repeated fingering in order to press out the small quantity of lymph which at last is secreted, and which then frequently becomes an impure serum, little capable of reproducing the true vaccine pustule. 5. The virus should not be taken from an individual who, however otherwise healthy in appearance, exhibits either around the vaccine pustules or in any other part of the body any anomalous eruption. 6. When many vaccinations have to be practised in succession, the precaution should be taken of cleansing the point of the needle from time to time—a precaution the more indispensable when unhealthy children or children affected with cutaneous eruptions are amongst those vaccinated. 7. Care should be taken in the verification of the vaccinations, and noting in the official registers any accidental morbid cutaneous phenomenon that may manifest itself either during the course or after the termination of the vaccination.

From all quarters the Professional complaint is the same, modified somewhat according to locality, concerning the license given to unqualified persons to abuse public confidence and to intrude on the province of those who have made many sacrifices in obtaining their knowledge and legal recognition. The Florence Medical Committee of the Italian Medical Association (which, like the French Medical Association, and unlike the British, takes an active part in the prosecution of illegal Practitioners) has resolved upon an unanimous address to the Public Prosecutor, calling upon him for the suppression of various abuses. 1. The prohibition of the illegal sale of remedies by mere druggists, to the great injury of the public health, and the serious danger of facilitating homicide, suicide, poisoning, etc.; as also to the obvious injury and injustice towards the pharmaceutists, whose

profession is reduced to a deplorable condition by this negligence of the authorities. 2. The suppression of the barbarous practice of charlatans selling remedies and performing operations in the public streets, therefore under the very eyes of the authorities themselves. 3. The rigorous punishment of the sale of secret remedies, which have not been approved of by competent scientific bodies, as also of persons usurping the titles of Doctor or Professor, as is often done in the public papers. 4. The prohibition of the right to practise Medicine by those who are not provided with the legal sanction of one of the Medical bodies of the kingdom. In answer to this appeal, the Minister of the Interior has issued a circular to all the Prefects, calling upon them to put into vigorous force the laws which do exist, but have been allowed to fall into abeyance, for the prevention of unauthorised practice and sale of remedies.

M. Pouchet, while in pursuit of his investigations on spontaneous generation, has met with a fact which he has just laid before the Academy of Sciences. Some patients, the subjects of phlegmasia of the trachea and bronchi, or of the nasal fossæ and external auditory canal, now and then, after passing a tranquil night, awake with feelings of intense irritation or itching in the affected part. The insupportable itching of the anus or vulva produced by the *oxyuris vermicularis*, induced M. Pouchet to suspect that the irritation in question might be induced by an analogous cause. Examining the sputa in a man suffering from this intense irritation, he found a large number of bacteria endowed with rapid movements, together with some moniads. In half an hour, the expectoration having become abundant, all traces of these animals and the irritation disappeared. The same circumstances were observed in a person suffering from coryza; and in another, the subject of discharge from the ear, whenever this was attended with great pruritus an immense number of bacteria were found in it, while when the discharge became abundant and the pruritus ceased, the bacteria disappeared. It is to the movements of the bacteria that M. Pouchet attributes the pruritus, for this was not observed when these were absent from the discharge, or only existed therein in a dead state. In the normal condition of the secretions from these surfaces these animalculæ are not met with, their appearance coinciding with a putrefactive change in the secretions favoured by high temperature and humidity.

REPORT ON CHEAP WINE.—NO. IV.

(By our Special Empirical Commissioner.)

(Continued from page 548.)

Hambro' Port and Sherry.

I said in my last, "Alcohol is a mere drug." I propose in this paper to illustrate this dogma by the history of some of the cheap wines of the "fortified" class, especially of those which are sold under the popular denominations, "port" and "sherry."

Your readers know how little is the part that "alcohol," *per se*, plays in the properties of wine, and how much more striking are the effects, for good and evil, of the oils, ethers, and other volatile bodies which are developed along with "alcohol" during fermentation, or which become developed or modified during the changes, which go on in cask and bottle, after the manufacture is completed.

During the fermentation and distillation of grain, for the manufacture of spirits, these oils are formed in abundance; and there is a practical distinction between "raw" or "unclean" spirits, and "clean" or "rectified" spirits. In fact, the "cleansing" or "rectification" of spirit is a separate business from that of the distiller. The object of it is, first to purify or cleanse the spirit from contamination with the oils; secondly, to make it of convenient strength; and thirdly, to flavour it and convert it into the "British brandy," gin, whisky, etc., in which shape it is most appreciated by the consumer.

Common experience, the mother of wisdom, and grandmother of all scientific induction, has shown in all ages that new wine is more intoxicating than old; this must be because it contains elements which the old does not, and conversely. The same is true with regard to spirits. There are unclean, new, raw whiskies sold in America by the hangers-on of their large armies, which get the name "Jersey lightning," from the rapidity and certainty with which they will prostrate a man. It is to the honour of the British manufacturers of spirits that they make a cleaner and better article than can be obtained elsewhere. Hence, as I said in my last, if a man want to drink or a Physician to prescribe "alcohol," let him give good clean British spirit. If the common gin or whisky be not liked, the dose of "alcohol" may easily be flavoured in some other way to suit the patient's taste. Tincture of cardamoms is a useful model; or a hot or cold punch may be made with spirit, sugar, lemonpeel, a teaspoonful of orange marmalade, essence of ginger, etc., etc. Gin at proof costs about half-a-crown a bottle. Spirits of wine at proof about the same; so that whoever wants a mere spirituous liquid, sweetened and flavoured, can make one bottle of proof gin or spirits of wine into three bottles of liquid of the strength of wine, containing 33 per cent. or thereabouts. If you have a fancy for *bouquet*, a teaspoonful or two of orange flower or elder flower water will easily give it. Raspberry or black currant jam, slices of fruit, etc., etc., might be employed to flavour the alcoholic liquid, and convert it into a spirit "smash" or "julep," or "sling," as the Yankees say. Here is a field for the compilers of the British Pharmacopœia!

But if you prescribe *wine*, let it be *wine*. Take care that your patient is not the victim of those audacious falsifiers who take spirits, mix them with flavouring and sweetening substances, and then send them back as wine, at an enormous profit to themselves. They add to pure spirit an uncertain quantity of artificial oily and ethereal bodies, the effect of which on any one's brains I should regard as most deleterious. As to the fact there can be no doubt.

Any one may drink a bottle of good pure unfortified wine at dinner without the least harm. On the other hand, there are some wines of which a glass or two affects the head directly. I well recollect an occasion on which a dozen persons dined at a well-known tavern. They all partook freely of several kinds of wine; but there was one sort put on the table, with a very high perfume, or *bouquet* as it is called. All who drank of this were made very uncomfortable—they who did not drink this, though they took as much of other sorts, escaped. No experiment could be more precise as to the effects of artificial odours added to wine

Now let me quote from some public documents in illustration of facts which the guardians of public health ought of all men to be least ignorant of:—

Mr. Prestwich, in his Report on the "Wines, Spirits, Beer, and Other Drinks" at the International Exhibition, 1862, (a) says sarcastically of wines (so-called) sent from Northern Germany:—

"They show *a marked improvement in applied chemistry* (!!), but are not encouraging as showing an improved taste in this country. These northern markets seem to exhibit in the manufacture both of wines and brandies a knowledge of the subject, and of the use, probably, of those *curious new flavouring ethyl ethers* which threatens a strong competition with our own makers and distillers, and even with the commoner foreign white wines, notwithstanding transport and duties."

The North German ports from which fictitious wines are sent are Hamburg and Bremen. That these are manufactured, in the truest sense of the word, is notorious to everybody, except those most nearly concerned—the public that drinks them and the Medical Practitioner who is called in to purge away the consequences. Medical men calmly order dyspeptic patients to take "their glass of sherry" without inquiring whether this is the product of the sun in the vineyard or of "applied chemistry" in the laboratory. The following advertisement from the *Times* of October 15, 1864, shows what is going on:—

"To Wine Merchants.—Wanted, by a gentleman of experience in making up the Hambro' sherries, etc., and having the required plant for that purpose, the Sum of £1000. Address, R. S., care of Mr. W. Abbott, 7, Little Tower-street, E.C."

If we seek the history of fictitious and fortified wine, we need not look far, nor dive into impenetrable secrets.

In the first place, let us consider the spirit part of it: Great Britain is a manufacturing country, and her distillers manufacture the best spirits, as we have said; but the Britishers

(a) Reprinted for private circulation by permission of the Society of Arts, by Clowes and Sons. 1863.

love to be swindled, and so they won't sweeten and flavour their own spirit, but let it go abroad to be doctored and done into wine.

From a list of prices current, dated London, November 11, 1864, it appears that the price of British spirit, free on board, was 1s. 7d. to 1s. 10d. per proof gallon. The price fluctuates with the price of grain. Hambro' spirit *on the quay* is twopence or threepence per gallon cheaper.

During the year 1863 the following quantities of British spirits were exported:—

	Gallons.
To France	406,904
,, Portugal, Azores, and Madeira	1,444,354
,, Turkey	160,488
,, United States	114,027
,, Australia	659,754
,, other countries	1,286,433

We might reasonably wonder how the inhabitants of Portugal, Azores, and Madeira—countries naturally producing a superabundance of fermented and distilled drinks—could find it easy to consume nearly a million and a-half of gallons of British spirits, and to pay £150,973 for them, which is the declared value,(b) did we not recollect that in the same year Portugal and Madeira sent us 3,634,345 gallons of wine, of which 2,648,351 gallons were entered for home consumption. Portugal probably sent us back 726,869 gallons of spirit in the shape of port wine fortified with 20 per cent. of spirit.

Now, in round numbers, the Portuguese buy spirit at 2s. per proof gallon. They add 20 per cent. to port wine. Two gallons, or one dozen of port, contain two-fifths of a gallon of added proof spirits, which costs about 9d., or at the rate of three-farthings per bottle, or, with its share of half-crown duty, 3¾d.

Just think of this, ye rosy-gilled commercial travellers! ye British farmers, who don't like claret and vow 'tis washy stuff, that "would be port if it could"! ye who praise the "body" and potency of port, who buy a pipe and keep it ten years to soften—think, to your comfort, that this 20 per cent. of added spirit, this glorious *body* and *strength*, that which makes port in your eyes so superior to claret or Hungarian or other pure wines, so fit for Englishmen—that which tints your face, and dries your tongue, and causes you to inquire for Seidlitz powders in the morning—that which enlarges your waistband, and makes you ask your bootmaker for a *leetle* more room over that joint of the great toe—costs less than three-farthings per bottle!

But to return to Hambro' sherry. It is offered at prices varying from £11 to £14 per butt, free in the Thames. This is equal to 4s. 6½d. per gallon, or 9s. 5d. per dozen, supposing it contains under 42 per cent. of proof spirit, and has paid the 2s. 6d. duty; or only 3s. 0½d. per gallon, equal to 6s. 3¾d. per dozen, if it have proof spirit under 26 per cent., and pays the shilling duty.

Here it is interesting to notice some benefit that the Custom House has rendered the public.

Supposing *wine* to contain under 26° of proof spirit, it pays duty at the rate of one shilling per gallon. Four gallons of such wine, containing about the equivalent of one gallon of proof spirit, would pay four shillings.

On the other hand, *spirits*, if imported as spirits and not as wine, pay 10s. 5d. per gallon. Hence it is clear that the introduction of spirituous liquors as *wine*, which are dilute spirits, and *not* wine, robs the revenue—*e.g.*, four gallons of Hambro' sherry at 26° would pay 4s.; their equivalent in proof spirit would pay 10s. 5d. Four gallons of Hambro' sherry at 33° would pay 10s. at the half-crown duty; the *spirit*, imported as spirit, would pay 13s. 6d.

On this point the Commissioners of H.M.'s Customs, in their report for 1863, say:—

"The *importation of spurious wines* into this country, principally from *Hamburg*, is a subject that has much engaged our attention during the past year. The practice which of late years has extensively prevailed of importing, under the guise and denomination of wine, an article containing a large percentage of spirit, but only a sufficient quantity, if any, of the known constituents of genuine wine to disguise the compound by the imitation of colour and flavour, is one which imposes a duty of great responsibility and difficulty on our officers, and is at the same time prejudicial to the interests both of the fair trader and the revenue." The report goes on to say that such suspicious liquids are carefully examined, and, if necessary, analysed; and if it appear that they cannot be called *wine*, they are subjected to duty as "mixed spirits." "This course," add the Commissioners, "has already succeeded in discouraging the importation of an article that has no pretence whatever to be considered as wine."

How well the Customs regulations operated is evident from the following groans of a wholesale wine house in Southard and Co.'s trade circular of February, 1864:—

"Hambro' sherries have been operated in to a very great extent; but the dealers *have been subjected to much annoyance* by the Customs authorities, who have stopped nearly all the recent arrivals and prohibited their admission for duty as wine, pronouncing, by the opinion of their officers, that they are only flavoured spirits and water, and consequently only admissible under the spirit duty. This step would be reasonable enough in cases when attempts are made to smuggle in spirits as wine; but to stop these parcels, which are indubitably wine, and can be proved to be so, is both arbitrary and unjust. It should be borne in mind that, next to London, Hamburg is the largest importer and most extensive depôt for foreign wines in Europe; and nearly all the shipments made from there are wines in the same sense and reality as the shipments from Portugal and Spain, manipulated and fortified in precisely the same manner, and almost in every case their analysis would produce the same result."

This is what schoolboys call a "*tu quoque*," or "*you're another*" argument. We manufacture wine, say the Hamburg chemists, and so do the Spaniards and Portuguese; you drink their brandied and blended compounds, O British people, and why don't you drink ours?

The following quotations from a printed circular of a Hambro' house, signed Edward Chaplin, and dated October, 1864, say the same thing in nearly the same words:—

"Port is a mixture of different wines with brandy, so also is sherry, so also is Hambro' wine; the only difference in the latter being that it is a blend of wines of different countries, whilst the two former are, or should be, merely mixtures of wines of Portugal and Spain respectively. The business of shipping houses in these two countries is merely a manufacturing one: they buy the raw materials, *i.e.*, the new wines as grown, and *fine, mix, sweeten, and fortify them to suit the English taste.* The shipper of Hamburg wines does precisely the same, with the sole exception that, instead of limiting himself for supplies to any particular country or district, he buys wherever he can find genuine, useful low-priced wines. He thus, having to pay no premium for the wines of any particular district, is at a great advantage over all for competition both in quality and price. *The business in wines from Hamburg has hitherto been almost confined to the lower qualities*, chiefly because the trade has not yet taken a sufficiently firm footing to warrant the merchant here in keeping stocks of old wines. Hamburg wines will, however, shortly be better appreciated. The Customs analysis and the curiosity aroused to know all about the trade should inaugurate their more general use.

"I can state most distinctly that my shipments consist solely of genuine wines fortified with the finest spirit, and it cannot be too distinctly remembered that the bulk of Hambro' wines are, like sherry, port, etc., genuine wines, simply blended with more or less skill."

We will ask next week from what unknown parts of the world these genuine wines come, which form the staple of the Hambro' chemists' laboratory; meanwhile, in order to give my readers a more prosaic account, let me quote at length from *Ridley and Co.'s Monthly Circular*, January 7, 1864:—

"*Hambro' Manipulations.*—The harmony of trade in these cheap compounded liquids has for the last three months been frequently disturbed by Custom-house officials, who, as a matter of course, will not permit so-called 'sherry' to pass into consumption without a careful analysis, to ascertain whether it be veritable wine, or mere sweetened spirits. At this date several parcels are placed under stop, and it appears likely, from the lengthened term of detention, that they will be altogether prohibited from being paid duty on as wine.

"In our opinion such liquids have no pretension to vinous attributes, being apparently compounded of spirit, *aqua pura*, capillaire, and flavouring ethers, which, after amalgamation, may perhaps be allowed to feed on layers of raisins in the large vats at Hambro'. The parcels now stopped for investigation were shipped partly from Bremen at £7 15s., and partly from Hambro' at £8 per 108 gallons free on board. Let us

(b) Accounts relating to Trade and Navigation of the United Kingdom for the Year ended 31st December, 1863. (Parliamentary Paper No. 66.)

endeavour to estimate the cost of the components, and what we imagine is left for profit to the vendors.

"Take forty proof gallons of fine potato spirit at 1s. 4d. per gal. on the spot, £2 13s. 6d.; fifty-six gallons of pure Elbe water, cost *nil;* four gallons of capillaire, £1; and, to be liberal, allow that ten gallons of luscious vine or grape-juice are added, at a cost of £10; then for cask, 12s.; labour and shipping charges, 10s.; commission, 2s. 6d.; discount for cash, 4s.; total, £7 2s. The enterprising shipper at £8 may thus secure a profit of 18s. per butt, or about 13 per cent. on his outlay; but when the composition consists only of diluted spirits, capillaire, and flavouring materials, *minus* the ten gallons of wine or juice allowed in the estimate, the first cost does not exceed £5 per 108 gallons of a liquid palmed off on the English consumer as Elbe sherry."

Messrs. Ridley go on to show how very much better it is for the seller, and worse for the buyer, to deal in fictitious wine than in honest old Tom or other spirit.

When I promised to report on cheap wine, it was on the quality, price, and wholesomeness of such as I could drink myself at my own table. But I could not drink wines such as those which form the subject of this article, and therefore I cannot report on them fully. I could not venture to send my servant for these cheap wines, as I fear the honest fellow would give me warning directly. But I mentioned two samples in my last, one of port, one of sherry, from the docks, and I can describe them. Each was of the alcoholic strength of 30° or thereabouts. The port was priced at £15 per pipe, which, with 2s. 6d. duty, makes the prime cost 10s. $5\frac{3}{4}$d. per dozen. It is a clear red liquid; specific gravity between 990 and 1000; acid to litmus; sweetish and mawkish to palate, hanging about the tongue; the reverse of *clean;* with a very marked pungency, not to be called heat; no astringency; a slight, faint spirituous smell, but no smell of port wine. Not a particularly unpleasant liquid; but for my own use I should prefer tincture of cardamoms.

The sherry is £11 per butt, cost price 9s. 5d. per dozen. Not nearly so good a specimen as the port; slightly acid, but mawkish.

Now that Christmas and juvenile parties are coming upon us, let us hope that some friends of humanity will interfere to protect helpless women and children from cheap Hambro' port and sherry. I am certain that I have tasted at evening parties wine such as stands on the table before me as I write; and this is worth bearing in mind by the Practitioner who is called in next day to treat a sick headache. More on this subject shortly.

What is Wanted by the Indian Medical Service.—In conclusion, the Medical service wants some little *bonâ-fide* liberality to improve its present lamentable position; and it must have justice, which demands that the pensions be equalised in the two services; that to the pay of rank shall be added staff salary for heavy and responsible charges; and that extra pay be granted for extra work. Such improvements would satisfy the present members of the services, and hence would speedily attract well-educated gentlemen to its deserted ranks; and the Director-General would be spared the degrading ignominy of touting by advertisement for Acting Assistant-Surgeons of forty years of age, who, though broken down and utterly failing in their Profession, if able to earn even three half-crowns a-day, will not leave that certainty for the unwonted discipline and uncertainty, and the four half-crowns offered. If the service be improved only to the extent we have indicated, there will certainly be attracted to it gallant, well-educated gentlemen, such as the Surgeon of the *Alabama*, who risked and gave his life to save his wounded men. Would that English gentleman have been found fighting in the *Alabama* if the Medical service had been attractive? If the service be treated justly, and as educated gentlemen ought to be treated, the vacancies will speedily be filled with able and choice men. If it remains as at present, the Director-General will fail to fill one-tenth of the present 215 vacant appointments, even with the very refuse of the Profession.—*Delhi Gazette.*

Instantaneous Cure of the Itch.—M. Decaisne, in a communication to the Belgian Academy of Medicine, states that the itch may be instantaneously cured by means of petroleum oil, which at once destroys the insect and any of its larvæ which may exist in the articles of clothing.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF LINCOLN.

(Continued from page 550.)

THE GENERAL DISPENSARY.

The Lincoln General Dispensary has been established nearly forty years, and is popular as a charity. It provides for attendance on the sick at the Dispensary House, and for visitation of the sick in their own homes in extreme cases. All persons living in Lincoln who are suffering from infectious diseases are not allowed to come to the Dispensary, but are visited at their own residences. The letters of recommendation allowed to subscribers are large. A subscriber of one guinea annually can recommend no less than fifteen patients in the course of the year, and five "home patients," and subscribers of half a guinea can recommend six ordinary patients and two home patients. The income of the Institution is derived from annual subscriptions, donations, collections, and legacies; in all from £500 to £600 is usually obtained, but the expenditure seems as a general rule to overrun the income. In special cases the Medical staff have power to order wine as well as medicine. More than 2000 patients are treated annually by the Medical staff, and a report is published monthly showing the number and the class of the cases that are admitted.

Medical Staff.

Physicians—J. C. Torry, M.D., G. Mitchenson, L.K.Q.C.P. Ireland. *Surgeons*—Mr. Snow, Mr. Hewson, Mr. Sympson. *House-Surgeon*—Mr. D. J. Garnham.

THE COUNTY AND CITY GAOLS.

The gaols of Lincoln are remarkable for their cleanliness, quiet, purity of air, and general sanitary condition. In the County Gaol (situated within the walls of the castle), cases of fever and diseases of a low type were not unfrequent some years ago. Under the advice of Mr. Broadbent, the Surgeon to the gaol, modifications and improvements were introduced in the drainage, and soon afterwards the diseases disappeared. Contagious disorders are now unknown in the building except when introduced from without, and even then they do not spread. The City Gaol is equally free from contagious diseases. I have received, through the kindness of Mr. Sympson, the Surgeon to the City Gaol, a list of admissions and of deaths from the year 1852. This list, which has been drawn up by Mr. Walters, the governor, shows that since the period named, 1852, two thousand and fifteen prisoners have been admitted, and that out of that number only two appear on the death calendar. The two cases that died were cases of phthisis in the last stage, quite beyond the hope of cure.

In the year	1852 . . .	105 admissions.
,,	1853 . . .	162 ,,
,,	1854 . . .	164 ,,
,,	1855 . . .	184 ,,
,,	1856 . . .	142 ,,
,,	1857 . . .	149 ,,
,,	1858 . . .	175 ,,
,,	1859 . . .	172 ,,
,,	1860 . . .	123 ,,
,,	1861 . . .	122 ,,
,,	1862 . . .	135 ,,
,,	1863 . . .	207 ,,
,,	1864 . . .	175 ,,
Total	. . .	2015

Deaths.

1. William Clark, February 14, 1853.
2. Bridget Thomas, June 23, 1864.

The rules drawn up for the direction of the Surgeon of the City Gaol are most comprehensive. Every matter relating to the hygiene of the prison, whether general or personal, is placed under his control. He has the power to call in additional Medical aid in urgent cases, and he can retain any prisoner who is seriously ill beyond the date of discharge, if the removal would be attended with danger. It is undoubtedly owing to the plenary power so wisely given to the Medical officer, and to his just and thoughtful use of it, that the excellent results tabulated above are to be attributed. It

seems, in fact, part of the gaol system that the hygienic condition should be the primary consideration. Errors there may be, and are, in respect to diet, but the contrast between the goal, the workhouse, and often the Hospital is most striking. Indeed, there are few, if any, private houses that in matter of salubrity approach her Majesty's residences for the refuse of the population.

PAROCHIAL MEDICAL PRACTICE.

The Lincoln parochial Medical district is divided into eleven districts after the following manner :—

District.	Population.	Acreage.	Medical Officer.	Annual Salary.
1	17,532	4,000	E. F. Broadbent, Esq.	£70
2	2,250	13,278	W. G. Glasier, Esq.	20
3	2,505	10,412	T. E. Hoyle, Esq.	30
4	3,064	13,083	W. Smith, Esq.	25
5	3,084	17,679	W. Bower, Esq.	25
6	2,805	19,536	J. D. Wrangham, Esq.	30
7	1,027	10,082	M. S. Barton, Esq.	15
8	3,637	18,837	S. Lowe, Esq.	40
9	3,002	20,149	S. Farrow, Esq.	35
10	1,886	11,950	H. Rainbird, Esq.	30
11	1,211	10,212	R. S. Harvey, Esq.	20

The Workhouse.

The workhouse, which is under the Medical care of Mr. Broadbent, is situated in an excellent position, being on the hill above the city. But I am afraid to enter into any particulars as to its condition. It is not worse perchance than many other of the same houses in this country, and I have in previous chapters depicted one or two which rival and outrival it. But it is bad, and by the side of the two goals cuts a miserable figure. For health's sake, and I think for comfort's sake, too, your true native had better be a mad pauper or a sane prisoner than a sane pauper doomed to the "House" in Lincoln.

THE SANITARY CONDITION OF LINCOLN.

At first sight Lincoln conveys to the mind of the stranger the idea that it is a city in which sanitary measures are carefully and zealously carried out. In some respects this idea is correctly founded, for the streets are wide and well paved, and the whole appearance of the city is clean and open. Destitution, too, makes little show out of doors, and the children of the poor, and the poor generally, present fewer evidences of debility and of indifferent nourishment than in many other agricultural towns—such, for instance, as Norwich. The people are, in fact, fairly fed, and when the artizan classes extend and become part of the population, we may expect that the condition of the working classes altogether will still further improve. The people are also pretty well housed, and are not severely overcrowded; and as there are now springing up in and around the city numerous small and well-built cottage residences, such overcrowding as does exist will soon be removed.

The Drainage of Lincoln.

These conditions are all satisfactory, but there still remains much to be done before Lincoln can be considered a healthy city. It has one great fault—viz., bad drainage. Naturally the place stands well for the work of the engineer, but as yet no effort has been made to introduce the improvements of modern science. In brief, the drainage of the city is by three channels by the river Withem, by a dyke or brook known as the Great Gowt Drain, by the Cincil Dyke, and by cesspools and dry wells.

Commencing from the upper part of the city we may remark that the sewage from the houses in the western districts and on the brow of the hill, from the Hospital, and the Asylum pours by covered drains into a large sheet of water called Brayford Head. This Brayford Head is a little port founded about the year 1806, for enabling vessels of small size coming from Hull and other ports to sail up to Lincoln. The port is very much overgrown with weeds and loaded with silt, except at the point where the vessels make their way, while in seasons of drought the volume of water is much reduced, and the odour from the sewage is most offensive.

The centre of the city is drained by the river Withem, a river which runs across the city nearly east and west in a straight line, and which receives the outpouring of Brayford Head. The Withem receives the sewage also from the Butchery (a large central place where cattle are slaughtered and the food is sold), from the many other slaughter-houses which now abound, and from the water-closets of the private houses. A barrel-tunnelled drain, commencing on the south side of the High Bridge, and which runs in the direction of the Corn Hill, receives the sewage and water-closet refuse from both sides of the High-street, and from the neighbourhood of the Corn Hill; this drain pours into the Withem. From the High Bridge far along, traversing the city, the river extends, and is walled on each side until its course is impeded, for the purposes of navigation, by a lock, called the "Stamp-end Lock." In this course the walls of the stream are pierced with numerous drains, which discharge their contents from both the northern and southern sides; this portion of the stream is consequently loaded to excess with decomposing organic matters, and as the stream is partly dammed up, the oxidation process is very slow, and the products of the decomposition are proportionately intensified in their action. On the day of my visit, in the early part of September last, the effluvium from the river Withem at the "Stamp-end Lock" surpassed all I have ever experienced; the Thames, at its worst, never approached it; and the bone-boiling yards of Lambeth, in their midst, are not one jot worse. The gases emanating from the decomposition actually bubbled up from the water as scientifically as when the chemist is letting them escape from his pneumatic trough. The odour of sulphuretted hydrogen was distinctly noticeable, and the effect of the inhalation was to produce intense nausea. The Great Gowt drain is a large open canal extending from east to west in the lower part of the city, about midway between the Withem and the extreme south. It was intended to be a means of draining off the waters which in a flood time accumulate on the western side of the place; but now it receives the sewage from a large section of the lower laid parts of the city. Fortunately, there are not many houses on the banks of this ditch, but it crosses the High-street; it is so wide as to require over it a bridge of considerable span, and in simple truth it is nothing more nor less than a foul, open sewer. At times when there is little rain the sewage is left comparatively free, there is no flushing, and the emanations are widely diffused.

At the extreme south of the city the drainage is carried on by what is known as the "Cincil Dyke." This dyke is a broad ditch, which runs along the whole of the southern border of the city, and, continuing eastwards with a northern inclination, invests the city almost on three sides. The first sewage drain opens into the Cincil Dyke at the extreme south-western corner of the town, and conveys the sewage from parts of the High-street below the "Great Gowt" drain. In its course, winding as I have stated, it takes in the sewage from all the houses and streets near its banks; and as it is a slow stream generally, the condition of it is easier imagined than described, especially at its commencement. On September 2 I traversed its entire length in connection with the city, and certainly it were impossible to overstate the unwholesomeness, both to smell and to sight. What the Fleet Ditch was in days gone by when it was open, the traveller may learn from the present condition of the Cincil Dyke at Lincoln. The dyke empties itself some ten miles away into the Withem, at a spot called Horsley Deeps; and provision is made by which it might be flushed frequently if there were not what may be called (personal) obstacles in the way; for at the commencement of the dyke there is a stream derived from the Withem, which communicates with the dyke, and which, guarded by flood-gates, could at any time be set free to any required extent. But these gates are under the control of the General Drainage Commissioners, who hold their meetings at Boston, who have no local interest in Lincoln, and whose special order must be obtained before the gates can be raised an inch. Practically, therefore, the city authorities are powerless; the dyke becomes almost a stagnant sewer when there is any deficiency of rain, and with abundance of water to flush it, it waits for Providence.

The cesspools and dry wells are in the back-yards of private houses and buildings; they are numerous, but are now constructed on better principles than formerly prevailed.

Reviewing the facts connected with the drainage of Lincoln, we have presented to us, as still extant, a primitive system :— a town built on and above a stream to which its refuse might be carried, and by which such refuse might be borne away; then another portion of a town gradually springing up on the other and lower side of the stream, and extending so far that new channels must be found or made for conveyance of refuse. In the first instance into these streams that which was cast would be borne by hand; then, as distances increased, open drains would be formed, and again in spirit of progression the drains would be closed in, the main channels alone being left uncovered. It remains now for the good people of Lincoln to

show their further enlightenment and their recognition of the current century by their adoption of an entirely remodelled plan for the clearance of their beautiful and thriving city.

As it appears to me from what I have seen effected elsewhere, the city of Lincoln could be drained effectually and with comparatively little trouble. The place offers natural advantages, which might easily be turned to account, and utilisation of the sewage, as well as the removal of it, might be equally provided for. The Cincil Dyke and the Great Gowt Drain are two ready-made sewers (middle and low-level sewers) which would have to be walled and covered in to the extent of the city to become all that would be required. The chief difficulty lies with an upper-level sewer, now virtually the river Withem, which ought and which must remain an open stream. To clear it there could be adopted no plan save that of constructing a special sewer on its northern side, which should receive the currents from all the smaller sewers or drains from the upper parts of the city, and, flushed by a current from the river itself, convey the whole to a point eastward, where all the sewage streams could converge, and where the sewage could either be discharged into the open river, or where it might be collected and utilised on Ellis' system. I make these remarks, not as pretending to suggest a plan that would of necessity be the best, but rather as an effective plan which meets existing conditions most nearly, and which would probably be least open to objections arising from local interests and the fear of sweeping changes.

Water Supply.

The water of the city is provided by a company, whose works are situated at the south-western point, close to the river Withem. The supply of water, however, is not from the Withem, but from a reservoir two miles and a-half westward, which is filled from a small stream called the "Prial brook," derived from high gravelly soil by small springs. The water from the main reservoir passes into the city, and is pumped into a second reservoir on the hill beyond the castle, from which reservoir there is a stand-pipe that allows the water to feed the highest parts of the houses. The water is of good quality, and at most times plentiful.

Mortality of Lincoln from Different Causes.

The average mortality of the city for the last period of the Census has been calculated by Dr. Farr, who is so courteous as to give me the following return:—

Average Annual Mortality in the District of Lincoln in the Ten Years, 1851—60.

Ages.	Deaths to 100 Living. Males.	Females.
All ages	2·113	1·975
Under 5 years	6 352	5·393
5 years	·755	·790
10 „	·528	·521
15 „	·560	·784
20 „	·751	·939
25 „	·993	·887
35 „	1·270	1 084
45 „	1·735	1·259
55 „	2·631	2·344
65 „	5·840	5·507
75 „	14·435	12·692
85 „ and upwards	32·500	31·778

Coroner's Inquests.

From twenty-five to thirty inquests are held annually in Lincoln. Through the kindness of the Coroner, I am enabled to subjoin the particulars of the year 1863:—

Return of all Inquests held in the above Jurisdiction touching the Cause of Death of any Person for the Year ended December 31, 1863.

NUMBER OF INQUESTS.

	M.	F.
Infants (legitimate)—		
1 year and under	2	1
7 years and above 1 year	2	0
Infants (illegitimate)—		
1 year and under	2	1
7 years and above 1 year	1	1
Children—		
Under 16 and above 7 years	2	1
Adults—		
16 years and under 60	14	5
Aged and infirm—		
60 years and above	4	0
Age unknown	0	0
Total	27	9

FINDING OF THE JURY.

	M.	F.
Murder	0	0
Manslaughter	0	0
Homicide, misadventure	1	0
Suicide or self-murder	1	0
Accidental death	12	3
Injuries, causes unknown	0	0
Found dead	4	3
Natural death—		
Excessive drinking	2	0
Disease aggravated by neglect	0	0
From want, cold, exposure, etc.	1	0
Other causes	7	2
Total costs	£75 1s. 4d.	

Epidemics and Endemics.

No accurate and comprehensive records have up to this time been kept of the diseases of Lincoln. I have, however, two tables, which are kindly supplied to me by Mr. Garnham, giving ten years' experience at the Dispensary, and another by Mr. Sympson, showing the mortality from the principal epidemic diseases for one year in Lincoln and the surrounding districts, including villages.

A Table showing the Number of Admissions and of Deaths from certain Diseases during the last Ten Years of the Lincoln General Dispensary Practice.

Year ending March 25.	From all causes, Total Admissions.	Admitted of						Fever.				Died of						Fever.			
		Variola.	Scarlatina.	Morbilli.	Cholera.	Diarrhœa.	Diphtheria.	Continuous.	Intermittent.	Typhus.	Typhoid.	Variola.	Scarlatina.	Morbilli.	Cholera.	Diarrhœa.	Diphtheria.	Continuous.	Intermittent.	Typhus.	Typhoid.
1855	1753	7	80	60	..	115	..	196	3	4	..	..	18	1	..	5	..	..	..	2	..
1856	1632	..	23	3	..	140	..	218	4	7	..	..	5	1	..	6	..	..	..	6	..
1857	1609	..	9	..	..	111	..	180	3	12	..	..	..	..	..	5	..	..	..	3	..
1858	1926	..	133	18	..	210	..	312	10	14	..	..	19	1	..	10	..	..	..	9	..
1859	2203	2	75	..	..	136	4	443	15	15	..	..	7	..	..	4	2	14	..	..	..
1860	2041	..	12	244	..	147	13	45	15	1	..	..	..	7	..	12	6	..	..	..	..
1861	1858	..	5	54	..	118	4	28	30	8	..	..	1	4	..	4	..	..	..	5	..
1862	2642	50	103	4	..	238	3	50	9	5	..	1	15	..	..	9	1	..	..	..	..
1863	2613	32	31	10	..	74	10	146	19	2	9	..	3	..	..	..	5	1	..	3	..
1864	2263	36	83	108	..	74	1	93	17	2	34	..	10	5	..	..	1	1	..	..	3

Number of Deaths from

In the quarter ending	Scarlatina.	Typhus.	Measles.	Whooping-cough.	Diphtheria.	Small-pox.	Total number of deaths in the quarter.	Children under 1 year.
Dec. 31, 1863	10	9	..	6	..	1	169	50
March 31, 1864	25	5	9	6	4	..	197	60
June 30, 1864	18	5	33	..	..	..	204	66
Sept. 30, 1864	47	4	..	..	3	3	206	65

The deaths in Lincoln *alone* during the last year amounted to 674—*i.e.*, in the year ending September 30, 1864. Throat and kidney complications seem mainly to have determined the fatality of scarlatina.

The Registrar of the city states that for the last five years deaths from scarlet fever and measles have been unusually numerous. Of late small-pox has been very prevalent and fatal. Since the close of the last quarter six deaths have been returned as from this disorder. The deaths rendered under the head of fever occur mainly from typhoid or enteric fever. Mr. Sympson, who has taken much pains in investigating the specific character of the fevers of Lincoln, informs me that *typhus* fever is very rare, *typhoid* common. Last year twenty children were attacked with typhoid in a school, and two died. In another school six were attacked and suffered severely, but they recovered. The sanitary condition of the town is such as would almost of necessity lead to this position in respect to fever. In the absence of pressing want of food, typhus fever is a disorder which must rarely show its head. In the presence of bad drainage and communication of drinking water from pumps with the decomposing organic matters of cesspools and sewers, typhoid fever must constantly occur, and run a limited course.

Cholera has visited Lincoln but lightly, and only once in the last two great epidemics. In 1849 five, or at most seven deaths were registered as from true cholera. The first case occurred on August 1, in a shoemaker's wife, aged 30, living

at Bullring-court, in the parish of St. Michael; she died in fourteen hours. The last case occurred in a child at Shait, in St. Martin's, on September 20. In the year of epidemic, 1854, the city altogether escaped the ravages of cholera. In 1849 and in 1854 diarrhœa was prevalent. In 1849 seven fatal cases occurred in the Union Workhouse, and forty-two in the district. In 1854 twenty-three fatal cases occurred from the same disease.

The condition of Lincoln in a sanitary point of view is in entire accord with these facts respecting cholera. As the city is supplied with water mainly from a source where contamination with human excreta is impossible, it has escaped the pest nearly altogether; but owing to some remaining connection between water and sewage, a few cases have appeared, as if to bear witness to the fact that all is not quite as it should be.

Vaccination.

Vaccination is but indifferently carried out in Lincoln and the district, to which circumstance the great present prevalence of small-pox is clearly traceable. The following table supplies the latest returns :—

Vaccination Extension Act.

Lincoln Union.—Annual Return.

Year ended 29th September, 1864.

Names of the whole of the Public Vaccinators of the Union.	Vaccination Districts.	Number and Ages of Persons Vaccinated by the Public Vaccinators.			Number of such Cases Successfully Vaccinated.			Number of Registered Births of all Classes, during the Year, including the Workhouse and the whole of the Parishes in the Union.
		Under One Year.	Above One Year.	Total.	Under One Year.	Above One Year.	Total.	
E. F. Broadbent	No. 1	123	34	157	123	34	157	
G. W. Glasier	,, 2	163	52	215	163	52	215	
H. Branthwaite	,, 3	51	51	102	51	51	102	
W. Smith	,, 4	80	1	81	80	1	81	
W. Bower	,, 5	62	21	83	62	21	83	
J. D. Wrangham	,, 6	55	37	92	55	37	92	1717
M. S. Barton	,, 7	20	2	22	20	2	22	
S. Lowe	,, 8	60	20	80	60	20	80	
S. Farrow	,, 9	87	46	133	71	39	110	
H. Rainbird	,, 10	45	18	63	45	18	63	
R. S. Harvey	,, 11	408	50	458	408	50	458	
	Totals	1154	332	1486	1138	325	1463	..

On this same subject, so important to the public welfare, Mr. Garnham has favoured me with the report subjoined :—

"During the present year, since the 26th of March and up to this day, November 21, there have been admitted to the Lincoln General Dispensary thirty-one cases of variola, of which (all were in unvaccinated subjects) ten were mild cases, and twenty-one were confluent.

"In the same period thirty cases of varioloid occurred, and the table will show the proportion of cases to each mark of vaccination.

Persons showing one cicatrix.	Persons showing two cicatrices.	Persons showing three cicatrices.	Persons showing no marks.
14	14	2	31

"Two of the confluent cases died; two patients were transferred to the parish, one of whom has since died, and the other lies in a precarious state. One now on the books is daily expected to breathe its last. Three have been followed by severe sequelæ, as obstinate crops of boils, etc., and one in particular has had tertiary sloughing of the integument of the elbow and threatening disease of the elbow-joint.

"The average duration of the varioloid appears to have been about ten days to a fortnight, the patients seldom being required to keep their bed; of the confluent cases of variola many are still far from convalescent after five or six weeks in bed.

"I attribute the defective state of vaccination in this town to a general and popular dislike to vaccination, and a consequent reluctance on the part of parents to submit their children to the operation; also to a want of firmness on the part of the authorities in enforcing the law as it stands.

"It must, I think, further be allowed that the operation is frequently very inefficiently performed, thus in itself tending to bring the subject of vaccination into bad repute, as those persons having only one or two (perhaps imperfect) marks appear to be far more liable to infection than those who are more perfectly protected by three or four good cicatrices.

"Devereux J. Garnham,
"House-Surgeon Lincoln General Dispensary."

The absence of due care in the performance of vaccination cannot be too strongly condemned, and the dangers resulting from the inattention could hardly be more forcibly conveyed to the mind than in the facts above stated. The objections raised by the people, especially by the illiterate, are of themselves sufficient obstacles to the advancement of those immortal labours which Jenner first placed before the world; and it remains for the Medical Profession even more than for the Legislature to endeavour to meet these and remove them. This object can only be effected by the most vigilant attention to the duties of the vaccinator, and especially to that part of the duties which relates to the correct performance of the operation. One failure of vaccination infects not a single person or family, but whole circles, with the idea that the prophylactic, so sure when it is soundly carried out, is useless, and, therefore, unnecessary or hurtful: the evil resulting spreads far and near, and more harm is actually done than if the operation had been left altogether undone.

SOCIAL FACTS.

Prostitution.

There are fifty-eight prostitutes in Lincoln who ply their obnoxious calling in an open way, and who are all known to the police; but in addition there is a large amount of what may be called secret prostitution. The brothels number twenty-two, and the common lodging-houses ten.

Public-houses and Beer-shops.

There are ninety-nine public-houses and forty-four beer-shops in the city of Lincoln, or rather more than one house of the kind to one hundred and forty-six persons.

Crimes and Criminals.

In the past year there were twenty-three crimes committed in the city; nineteen persons were apprehended, and fourteen were committed for trial. In the same period three hundred and thirty-four males and eighty-two females were proceeded against before the magistrates. Of these sixty-seven were brought up for drunkenness, seventy-four under the Local Acts, thirty-seven for larceny of above the value of five shillings, nine for prostitution, and nineteen for wilful damage.

I leave with the reader now this Medical sketch of the history of a fine English city. But it behoves me, before my task is over, to thank most heartily the many friends who have aided me in my labours. These thanks are specially due to Mr. R. S. Harvey, Mr. Septimus Lowe, and Mr. T. Sympson: their special kindnesses I cannot forget. Nowhere has greater attention and readiness to supply every information been offered me than in Lincoln, and I feel vividly how inadequate is the description that has been written compared with that which I would have wished to have completed had time and space been at my command.

REVIEWS.

Grundzüge der Homologie un Baue der drei Doppelhöhlen des Wirbelthier Küpers. Von Dr. Freund.

Principles of the Homology of the Three Cavities of the Vertebrate Body. By Dr. M. B. Freund. Breslau. 1864.

This is another attempt, and it seems to us rather a successful one of its kind, to trace homology between the vertebrate skull and trunk by comparing the cranium with the thorax and pelvis, alike in its hæmal and neural arches. By this means Dr. Freund thinks the division of the cranial bones into vertebræ, sense capsules, dermoid and face bones is rendered unnecessary, and that all parts of the skull find a natural place either as portions of vertebræ with their arches, or as limbs. He recognises three cranial vertebræ—the occipital, the posterior sphenoid, and the anterior sphenoid with the ethmoid. In respect to the hæmal arch the chief point on which Dr. Freund lays stress is the division of the anterior arch into two portions, an anterior and a posterior, which are widely separated in the two anterior vertebræ, and have portions of the posterior arch inserted between them, thus in the third cranial vertebra the single portion of the (neural) arch is formed by the plate of bone which extends from the foramen opticum to the inner posterior angle of the

pars orbitalis of the frontal. This arch then divides into a posterior inferior portion—the ala parva—and an anterior superior one—the lamina cribosa—which passes into the processus alaris as the superior oblique process. Between these two portions of the anterior arch there is inserted a part of the posterior arch, the pars orbitalis of the frontal. This division of the anterior arch is determined by the change in the position of the oblique processes occasioned by the forward bending of the spinal column to form the head.

In respect to the hæmal arch, the ribs, according to the developmental history, are represented by the branchial arches, and are, therefore, for the anterior vertebra, the labyrinthus with the malleus and incus; for the second, the styloid process, the stylo-hyoid ligament, the stapes, a part of the posterior wall of the tympanum, and the smaller cornu of the hyoid bone; for the posterior vertebra the proper hyoid bone with its greater cornu. Dr. Freund justly remarks that the resemblance here becomes much more striking if we conceive these cranial ribs continued from side to side. The homologous parts of the limbs of the three sections of the body are,—1. The squamous portion of the temporal bone, the body of the scapula, and the ilium. The ridge of bone across the temporal, continuous with the zygoma, answers to the spine of the scapula and the acromion, and to the crest of the ilium with its anterior-superior spine. 2. The upper jaw and palate bone, with the internal pterygoid lamina and the cornua of the sphenoid, answer to the ischium. The homologue is wanting on the shoulder. 3. The malar bone, clavicle, and Poupart's ligament. And 4, The nasal bones, the manubrium sterni, and the symphyses of the pubis correspond to each other. The homologies of the remaining portions of the skull and of the muscles are traced in a corresponding manner. Whether this or any vertebral theory of the skull is to be embraced, or whether with Professor Huxley the whole conception is to be deemed unfounded, we must leave to the judgment of our readers. Our own feeling is that the idea is not without a valid basis, but that it errs in assuming, as it were unconsciously, the *vertebra* as an entirety instead of recognising it as merely the resultant of certain conditions, which conditions being modified, afford of course a modified result. Skull and spine probably are essentially alike, but the skull is no more a *modification* of the spine than the spine is a modification of the skull.

GENERAL CORRESPONDENCE.

ON THE PRODUCTION OF AN INVERTED IMAGE BY A CONVEX LENS.

LETTER FROM MR. J. Z. LAURENCE.

[To the Editor of the Medical Times and Gazette.]

SIR,—I shall best answer Mr. Cresswell's letter of the 2nd inst. by referring to the several statements he makes in support of his theory.

1st. "The eye must be placed at much more than ten inches" to see the image. I see it with perfect distinctness as close as $3\frac{3}{4}$ inches from my cornea, which is, in fact, my monocular near-point, or, *e.g.*, using a 6-inch convex lens at $9\frac{3}{4}$ inches from the lens.

2nd. The image "appears painted on the lens." If you look at the lens held in your hand at the same time as you regard the image, this is true; but if you fix the lens at one end of a dark tube, and look through the other end of the tube, the image of an object, a taper-flame for example, appears where the object actually is. This is similarly true of all telescopes. If you look at a taper-flame through, and at the same time not through the lens, you see the object in its real place, the image between your eye and the lens. All these facts depend on our mentally referring the image to the plane we are simultaneously regarding. This I have in my lectures explained in reference to concave lenses; and some years ago I drew attention to the same phenomenon, even as regards ocular spectra, which, as Darwin before me in his "Zoonomia," I showed to increase in apparent size in proportion to the distance of the plane of projection from the eye.

3rd. The "true focal image on a screen at the principal focus is smaller" than that "on the lens." This is not true, when both images are seen with precisely the same definition. By viewing the image closer than our accommodation admits of, it does, it is true, appear larger, *but it is at the same time blurred and indistinctly outlined;* in fact, what we see is the "diffusion image" on the retina. Retreat a little, or interpose a low-powered convex lens, and the image becomes less and distinct.

4th. The following experiment will, I hope, convince Mr. Cresswell he is in error as regards his statements about his opaque "disk." Place a convex lens at such a distance from a distant taper-flame as to see the inverted image of this distinctly. Between the lens and the object at, or within, the focal length of the lens place an opaque disk about two-thirds the diameter of the lens and exactly centred with this lens. Now, look with, say, the left eye through the lens, and you see, as Mr. Cresswell states, nothing but an enlarged image of the disk. But with the *right* eye you at the same time see a perfect inverted image of the flame; this image is, in fact, formed by refraction through the left-hand margin of the lens, and owing to this forming a prism with its base inwards, the inverted image appears thrown out altogether to the left, and is slightly tinged with the colours of the spectrum. Indeed, if you now hold a piece of coloured glass on the left-hand margin of the lens, the image seen with the right eye appears similarly coloured. Of course you see no image through the centre of the lens (with the left eye), because the opaque disk cuts off all the rays striking the central part of the lens.

5th. The reason you see the image through "a perforated diaphragm" clearer with the naked eye than when it is thrown on an opaque screen is that in the one case all the rays which form the image really reach the eye; but in the case of the screen a great many are lost by irregular reflection and absorption, which, when so many rays are already cut off by the diaphragm, must exercise a powerful deteriorating influence on the illumination of the image. Besides, with a diaphragm, in the case of receiving the image on a screen, the object, aperture in the diaphragm, and the lens must be accurately centred to see the image at all. Is Mr. Cresswell aware of the fact that we may obtain a very tolerable, though feebly illuminated, inverted image of an object on a screen, by simply allowing the rays of light from the object to pass through a minute aperture, without any lens at all? [*Vide* my lectures, *Medical Times and Gazette*, No. 722.]

There are several other minor inaccuracies in Mr. Cresswell's statements which it would be superfluous to further discuss after what I have already said. I would, however, add that such questions as Mr. Cresswell raises are always of interest, as they tend to stimulate us to accurate investigations of facts which lie, as he justly remarks, "at the very root of the ophthalmological branch of optics."

I am, &c. J. Z. LAURENCE.

30, Devonshire-street, Portland-place, November 21.

[To the Editor of the Medical Times and Gazette.]

SIR,—Your correspondent, Mr. John Cresswell, has written a letter that curiously illustrates a remarkable mental peculiarity.

Among those who address themselves to the rudiments of any science there are always a few (often possessing general acuteness of mind in a high degree), who are specially impenetrable as against some particular form of truth that does not present the same difficulties to others. The subjects of such a mental infirmity, if naturally diffident, will carefully reconsider, and will often succeed in traversing, the *pons* over which they stumbled. If not diffident, they are very apt to promulgate their mistakes as discoveries. The periodically recurring controversy about the lunar motions is exactly a case in point.

If Mr. Cresswell had reflected that the received notions about the formation of images by lenses have been framed by very eminent mathematicians, that these notions are the generalised expressions of facts perfectly well known, and to which no additions can be made, and that they have for many years been tried by every conceivable test of experiment and of use, he would probably have paused to inquire and to think before attempting to remodel the foundations of the science of optics.

Putting aside minor inaccuracies, such as "the convergent rays from many small objects," I think the sources of Mr. Cresswell's self-deception may be referred to three principal heads. He does not appear to distinguish between rays and pencils; he has so far misunderstood the theory of the formation of images as to suppose that somebody believes them to be formed in the principal focus of the lens, instead of in or near to the place of a conjugate focus; and he leaves altogether out of account the rays that are oblique and eccentrical, so that they neither pass through the centre of the lens nor are

united in its axis. Your pages, Sir, are not designed to be the vehicles of elementary instruction in optics, and I will not, therefore, attempt to occupy your space by explaining the true theory of the formation of images. It is sufficiently explained in many elementary books—for instance, in Mackenzie's "Physiology of Vision;" and if Mr. Cresswell, or those who share his difficulties, will only read such books with the requisite attention, they will have no inclination again to inflict their crude conjectures upon your readers.

I am, &c., F.R.C.S.

THE LATE SIR B. BRODIE'S CROONIAN LECTURES.

Letter from Mr. Charles Hawkins.

[To the Editor of the Medical Times and Gazette.]

Sir,—Would you allow me to supply an omission in Dr. Robert Lee's paper, read at the Royal Medical and Chirurgical Society, which is reported in your last number? Dr. Lee, in his history of the Croonian lectures on "Muscular Motion," says that one was read in 1811 by Sir Benjamin Brodie, but omits to state that he read one also in 1813 "On the Influence of the Nervous System on the Action of the the Muscles in general and of the Heart in particular." The Council of the Royal Society directed that it should be printed in the *Philosophical Transactions*, but the author requested that the printing should be postponed, and it never was printed. The Council permitted me to copy this communication, and it will appear in the forthcoming edition of the author's works. In this lecture he details a series of experiments he had performed, showing that the heart when suddenly and completely emptied of blood, continued to act even for a longer time than when it remained with its cavities distended with dark-coloured blood after the cessation of respiration, the contractions of the different parts of it being as regular, as orderly, and as vigorous as when the circulation is still going on; and he was led first to reject the hypothesis of Haller, and refer the contractions of the heart to the nervous influence supplied by the cardiac plexus of nerves, and not to the stimulus of blood on its cavities; and secondly, to apply the same explanation to the movements of other involuntary muscles.

By finding room for this letter you will oblige

Yours, &c.

Savile-row, November 22. Charles Hawkins.

RELAPSE OF TYPHOID.

Letter from Mr. Harry Leach.

[To the Editor of the Medical Times and Gazette.]

Sir,—The following case may be interesting to many of your readers:—

J. N., seaman, aged 25, was admitted into this Hospital on September 27 last with markedly clear symptoms of typhoid fever: furred tongue, rose-coloured spots very numerous, stools pea-soupy, and slight pulmonary congestion. He had recently arrived from Archangel, and his illness had commenced about fourteen days before admission. The disease ran its usual course, and, after a somewhat severe attack, he was sufficiently well to be classed as a convalescent on October 14. At this time all fever and all symptoms thereof had entirely passed away. At the expiration of a week from the last date symptoms of typhoid fever again appeared, and on the next day the back of the patient was sprinkled with an exanthematous rash of rose-coloured spots, more numerous than I ever recollect to have seen before. The stools were pea-soupy, and there were during this attack more delirium and much more pulmonary congestion, the latter almost amounting to pneumonia. The fever reached its climax on the fourteenth day from the commencement of the second attack, and the patient is now again convalescent.

This case appears worthy of record for the following reasons:

1. The comparative rarity of a complete relapse of typhoid fever; 112 cases of this disease have been admitted here during the last two years, and no instance of relapse has occurred. Dr. Ward, in his large experience as Physician to this Hospital for some years, recollects no similar case.

2. The resolution of the second attack on the fourteenth day, the crisis of the first attack having taken place on the twenty-first day.

3. The very abundant eruption. *Apropos* of which, I take leave to remark that, in cases of typhoid fever on board this ship, I have generally found a favourable result in direct proportion to the quantity of eruption—*i.e.*, that from an abundant rash may be deduced a favourable prognosis.

I am, &c.

Harry Leach, Resident Medical Officer.

Hospital Ship *Dreadnought*, November 21.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, November 15.

Mr. Prescott Hewett, President, in the Chair.

A report, by Dr. Harley and Dr. Broadbent, was read on

DR. BROADBENT'S SPECIMEN FROM A CASE OF OBSTRUCTION TO THE FLOW OF THE URINE.

It was found that there were valvular flaps in the ureters which prevented the escape of fluids into the bladder except when the ureters were much distended. As the urethra was not obtained with the bladder, the cause of the retention of urine in the bladder could not be explained.

Dr. Morell Mackenzie exhibited a specimen of

NECROSIS OF THE CRICOID CARTILAGE,

which he said illustrated the pathological changes that precede death of the cartilage. The disease was not far advanced, but the perichondrium had separated entirely from the posterior half of the cartilage on the right side, and was only attached here and there on the left side. When the larynx was opened the cartilage was found to be bathed in pus, and it was to be observed that at several places the cartilage had undergone ossification. The specimen was taken from a young man, who died of phthisis.

Dr. Morell Mackenzie also exhibited

THE LARYNX OF A CHILD WHO HAD BEEN UNDER HIS CARE FOR APHONIA.

The child, aged between three and four years, could not be examined with the laryngoscope, principally on account of the shape and position of the epiglottis. The case was a very interesting one, as the aphonia had been congenital, or had occurred immediately after birth. The mother had never known the child to utter a sound. When it cried tears came into its eyes, but it could not produce a sound. On introducing the finger into the larynx during life, Dr. Mackenzie felt beneath the epiglottis a hard round tumour. It seemed of cartilaginous or bony character, and was believed to be a growth connected with the thyroid cartilage. There seemed to be no doubt as to the nature of the case, and Dr. Mackenzie had exhibited it at another Society, where several Hospital Physicians and Surgeons carefully examined the larynx, and agreed with him as to the nature of the disease. The child died in an epileptic fit. Instead of a cartilaginous tumour, warty growths were discovered in the larynx. Some small warts, the largest of which was about the size of a tare, were found in the left vocal cord, and beneath the vocal cords on each side the mucous membrane was of a warty or granular character. It became interesting to ascertain how the mistake in diagnosis had arisen. This, Dr. Mackenzie said, had no doubt been caused by the hyoid bone being pressed down (when the finger was introduced into the mouth), and felt through the epiglottis. Dr. Mackenzie said that, though such cases were rare, and though the mistake could only happen before the cornu of the hyoid bone were developed, he thought the case instructive in a practical point of view, more especially as attention had never been called to this source of fallacy.

Dr. Robinson showed

THE LIVER, SPLEEN, AND KIDNEYS OF A PATIENT WHO DIED JAUNDICED AND IN COMA.

The patient was admitted into Hospital for soft chancre, and at the time was jaundiced. He somewhat suddenly became comatose and died. At the autopsy the liver, spleen, and kidneys were found diseased.

Dr. Murchison suggested that a microscopical examination should be made of the liver, as the symptoms were not unlike those of acute atrophy.

Dr. Harley said that at first glance it might have been thought that the coma was due to some drug, as, for instance,

to the iodide of potassium taken in an overdose. This drug, he said, produced congestion of the brain, and killed by coma.

Mr. Robinson said that no iodide of potassium had been given.

Dr. Harley thought the general symptoms, as detailed by Dr. Robinson, confirmed Dr. Murchison's view as to the disease being acute atrophy.

In reply to Dr. Quain, Dr. Robinson said the urine had not been examined.

Dr. Harley and Dr. Murchison were appointed to report on the specimen.

Mr. Holmes then showed a large

TUMOUR REMOVED FROM THE NECK OF AN INFANT.

When seen the child was two years old, and the tumour had been growing a year; it was not congenital. It was situated on the left side, and reached from within an inch of the mastoid process to a finger's breadth of the clavicle. It did not implicate the subclavian vessels; it was also free from the carotid vessels, but pressed up the sterno-mastoid. It reached backwards under the trapezius towards the spine. It was growing rapidly, and in parts was soft, and had been tapped, on the idea that it might contain fluid, but none was obtained. It was removed twelve days before; the trapezius was divided in the operation, and the whole of the mass was got away. It consisted of fibrous and fatty tissue, and thus in its composition it resembled a tumour removed from the sole of a child's foot by Mr. Gay; yet it differed from Mr. Gay's specimen in that the fibrous tissue was not reticulated.

Mr. Gay exhibited a case of

TRAUMATIC VENTRAL HERNIA, FROM EXTENSIVE RUPTURE OF THE RECTUS ABDOMINIS MUSCLE.

W. A., aged 50, a remarkably strong built man, was admitted into the Great Northern Hospital on October 18. He was an engine-driver on the Great Northern, and whilst standing on the rail an unperceived engine approached, by the buffer of which he was struck in the front of the abdomen, and thrown off the line. A tumour of the size of a large cocoa nut immediately made its appearance around and involving the umbilicus. He suffered intense agony, vomited almost constantly, soon became collapsed, and died after the expiration of twenty hours. On removing the integuments several coils of intestine protruded. These had passed through a ragged transverse aperture, through the sheath of the recti, the entire muscles themselves, and the peritoneum. The rent on either side extended beyond the lineæ semilunares into the adjoining muscular layers. The left epigastric artery was torn across. Blood was effused extensively between the internal oblique and transversalis, and there was a large quantity in the abdominal cavity. The muscular structures on microscopic examination were found to be healthy. Mr. Gay had not found so severe a case on record. Instances had occurred in which, from direct blows, sudden contractile effort, and tetanic spasm, portions of the recti had been ruptured, but no one in which a blow, in all probability with violent and sudden contractile efforts, had produced so extensive a laceration as in this case. The skin was uninjured.

Dr. Fenwick showed

THE LOWER JAW OF AN ANTELOPE.

The bone presented the characters generally observed in rickets in the human subject. It was enlarged, but lighter than natural; was easily bent, and could be cut with a knife. This disease is very common in the deer tribe when kept in confinement, so much so that one articulator of skeletons calculates that two-thirds of the number he has prepared have exhibited traces of it. It is evidently a general, and not a local disease, for the animal from which the preparation was was taken met with its death from fracture of its ribs caused by striking itself against its den. In another case, the deer charged violently against the side of its den, uttered a scream, and fell back dead. On examination, the third vertebra was found fractured. One of the chief advantages to be expected from the study of comparative pathology is the elucidation of the causes of disease. In the human subject there are so many varying conditions that it is difficult to determine which is the cause; but in the case of the lower animals the conditions are more simple and more easily known. The antelope in confinement differs from the wild animal in the want of exercise and in the nature of its diet. The want of exercise can scarcely be supposed to produce the complaint, as the carnivora are not liable to it. The antelope when wild feeds chiefly on the newly-sprouted grass, but in confinement it is fed on oats and hay; but as the latter contains as much or more lime than the natural food, the disease probably arises from a deficiency in the organic acids. Dr. Fenwick suggested that perhaps a further consideration of the subject might prove useful by affording a clue to the causes producing rickets in the human subject.

Dr. John W. Ogle exhibited a specimen of

ULCERATION OF THE INNER SURFACE OF THE CRANIUM IN CONNECTION WITH A CARCINOMATOUS GROWTH OF THE BRAIN FROM A CASE OF MANIA AND HEMIPLEGIA.

The patient, Jane E., was admitted into the Somerset Lunatic Asylum in January, 1852, suffering from hemiplegia of the right side, and mania. Her disposition during her life in the Asylum was irritable, but kindly. Her bodily health was indifferent, and she had suffered from occasional paroxysmal attacks of excitement. In May of the present year (1864) she was removed to the Infirmary complaining of extreme weakness. In June she had an attack of jaundice and ascites. These symptoms increased, and she died on July 8. On *post-mortem examination*, the cerebral vessels, especially those on the right side, were very congested, and a portion of the superficial parts of each cerebral hemisphere (to about the size of a hazelnut) was infiltrated with purulent fluid, and occupied by a soft reddish-brown growth, the surrounding brain-tissues being dark and inflamed. The cerebral membranes were natural. On the inner table of the skull corresponding to the disease of the brain were two excavations produced by ulceration. The one on the left side was very slight; the one on the right side was much deeper, and about equal to a shilling in diameter, its edges being surrounded by new bone formations in the shape of numerous very fine and sharp spicula, and, to a certain degree, by very firm fibrous tissue adherent to the bone. This depression was occupied by soft brownish-red material of the same nature as that observed in the brain-tissue; but the bone, where ulcerated, was not at all softened. This cavity occupied the inner surface of the bone where traversed by the groove for the middle meningeal artery, which was in consequence at one part quite obliterated by it. The outer surface of the skull, corresponding to one of the excavations, was porous and slightly ulcerated. About an ounce of clear fluid was found in the spinal canal. Spinal cord healthy. The lower half of one lung was much congested. The heart was natural. The abdominal cavity contained much fluid. The liver weighed 182 oz., and was greatly enlarged, and occupied by carcinomatous tumours, as was also the uterus. *Microscopical examination* of the brownish deposits in the brain showed numbers of large granular and opaque nerve-cells, along with much granular matter and numbers of round and oval nucleated cells, some being condate, such as are often found in encephaloïd growths. The deposit connected with the ulcers of the cranium presented similar cells, in addition to firm fibrous tissue.

Dr. Ogle also exhibited a specimen of

ATROPHY OF THE LEFT CEREBRAL HEMISPHERE WITH ATROPHY OF THE ARM OF THE OPPOSITE SIDE OF THE BODY—FROM A CONFIRMED EPILEPTIC WHO DIED OF PHTHISIS.

The patient, C. E., a man, aged 29, was admitted into the Wells Lunatic Asylum in October, 1860. The arm of the right side was much smaller than the left one in diameter, measuring $5\frac{1}{2}$ inches below the insertion of the deltoïd muscle, whilst the left one was only $5\frac{3}{4}$ inches, and much shorter, measuring 30 inches, whilst the left one only measured 27 inches. The right wrist was firmly contracted, and was only $4\frac{3}{4}$ inches in circumference, whilst the other was 6 inches. During the year 1861 the patient had had 40 epileptic attacks; during 1862, 25; during 1863, 33; but in 1864 (the present year), up to September, he had only 4 fits. He was rational in the intervals between his attacks, and assisted the attendants in cleaning the corridors of the asylum, but was violent when the fits came on. He died of pulmonary phthisis. On *post-mortem examination*, the skull was found to be quite natural in formation and shape, measuring $20\frac{1}{2}$ inches in circumference when the scalp was removed, 11 inches in an antero-posterior and 10 inches in a transverse direction without the scalp. The dura mater was natural. On removing the membranes on the left side a quantity of fluid escaped. The brain was found to be very un-symmetrical. The encephalon weighed altogether 40 oz., the brain without the cerebellum weighing 34 oz.; but the left hemisphere was much smaller than the right one. In addition to its being generally smaller in size than its fellow, there was complete absence of some of the superficial convolutions on the upper and posterior surface

of the left cerebral hemisphere, owing to which a deep chasm was produced, which when widely opened presented a cavity of the size of a large walnut, lined by apparently thickened arachnoïd membrane, traversed by large blood vessels. The middle lobe of the brain near the above-mentioned cavity was much softened, but the brain was otherwise healthy in substance. The lungs were occupied by tubercular deposits and vomicæ. For the details of this, as of the former case, Dr. Ogle had to thank Dr. Boyd, Resident Physician at the Lunatic Asylum at Wells, who had also sent him a photograph of a patient now in the Asylum having a similar deformity of the right arm (shortening and contraction), but in whose case the left side of the cranium was flattened. This photograph Dr. Ogle exhibited to the Society. Dr. Ogle alluded to a case which he had brought before the Society on a former occasion of atrophy of one hemisphere of the brain (without any cyst) with atrophy and contraction of the opposite arm, in a boy; also to another of similar atrophy and contraction in the case of a man in whom a large cyst existed at the base of the left ventricle on the opposite side.

Mr. Henry Smith showed a

TUMOUR REMOVED FROM THE BACK.

The specimen was interesting in reference to the relation of benign and malignant growths. The patient had had a tumour on his left shoulder of thirty years' duration. It remained of the same size until eighteen months ago, when it began to increase rapidly. Mr. Smith removed it, cutting widely so as to remove the whole of the disease. Under the microscope it showed the appearances of epithelioma. Mr. Smith believed that the growth had been originally simple, and that it had been transformed by irritation. Mr. Fergusson suggested that it might originally have been a nævus.

Dr. Wilks showed a specimen of

CYST IN THE CAVITY OF THE ARACHNOID.

A young man, aged 23, who died of phthisis, was found to have what was at first thought to be a cyst contained between the layers of the dura mater. On opening it it was found to contain three to four ounces of a white fluid with much cholesterine. By a careful dissection, the dura mater was able to be torn off the upper surface, and then a perfect cyst was left occupying the cavity of the arachnoid, the upper surface adherent to the dura mater, and the lower to the brain. An opinion had existed with some that such a cyst would be formed by the organisation of lymph; but it was shown very conclusively many years ago by Mr. Prescott Hewitt (the President) that their origin was an effusion of blood. In this case there was no history of injury, but the young man had always been imbecile, and been for some years the inmate of a workhouse.

The President said that the specimen was a rare one. As a rule the cysts were not attached to the cerebral arachnoid, but there was no reason why they should not be attached. Dr. Quain had exhibited a specimen in which the cyst was found completely free.

Dr. Wilks then exhibited a specimen from a case of

STRANGULATION OF INTESTINE BY A DIVERTICULUM ILII.

A girl, aged 10, was admitted under Dr. Wilks' care into Guy's Hospital, with all the usual symptoms of strangulation of the bowel. She very soon became suddenly collapsed, with the additional symptom of peritonitis. She had been ill ten days, and had never before had any indication of obstructed bowel. The post-mortem examination showed a band passing downwards from the umbilicus to the ileum, dragging up the part, and thus causing the constriction. This was hollow, and proved to be a diverticulum. Its attachment to the umbilicus was corroborative of the opinion that these diverticula are remnants of the Vitelline duct or umbilical vesicle.

Dr. Wilks also showed the

LARGE INTESTINE FROM A CASE OF TYPHOID FEVER.

In some exceptional cases the large intestine is affected in typhoid fever. In this specimen, taken from a young man, aged 20, besides the usual well-marked appearances of the disease in the ileum, the whole of the large intestine was closely covered with a number of elevations like peas, or as if the mucous membrane was affected by a variolous eruption.

Samaritan Hospital.—Drs. Jenner and Greenhalgh have been appointed Consulting Physicians to this charity.

MEDICAL NEWS.

University of London.—The following is a list of Candidates who passed the late Second M.B. Examination, 1864:—

Pass Examination.

First Division.—Palemon Best, University College; William Carter, Charing-cross and St. Thomas's; Edward Casey, King's College; Carey Pearce Coombs, S. Mary's Hospital; Edwin Edmund Day, King's College; Thomas Marsden Edwards, Andersonian Institution; Thomas Fairbank, St. Bartholomew's Hospital; Edward Lloyd Harries Fox, University College; Charles Albert Hingston, St. Bartholomew's Hospital; John Harward Hooper, St. Thomas's Hospital; Henry Law Kempthorne, King's College; Ebenezer Ludlow, St. Bartholomew's Hospital; Richard May Miller (B.A.), University College; John Morton, St. Thomas's Hospital; John Albert Nunneley, Leeds and Guy's Hospital; John Jones Phillips, Guy's Hospital; Walter Rickards, University College; Frederick Simms, King's College; William Frank Smith, Guy's Hospital; John Sebastian Wesley, King's College.

Second Division.—Frederick Pooley Edis, Westminster Hospital; James Hinds, Queen's College, Birmingham; George King, London Hospital; Shephard Thomas Taylor and Henry Willey, King's College; Thomas James Woodhouse, St. Thomas's Hospital.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary Examinations for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 17th and 18th inst., viz.:—

Charles Thomas Heaven, London, of St. George's Hospital; Francis John Marshall, L.S.A., Moulton, Northamptonshire, of St. Mary's Hospital; Edward Russell Woodford, Ventnor, Isle of Wight, of University College: Henry Willson, Strand, of Charing-cross Hospital; Tudor Hora, Westbourne-terrace, of St. Mary's Hospital; Charles George Leacock, Puckeridge, Herts, of King's College; Herbert Taylor, M.D. Univ. Edin., Rutland-street, of University College; James Jones, Kingston-on-Thames, of King's College; Thomas Armetriding Compton, B.A. Cantab., Christchurch, Hants, of St. Bartholomew's Hospital; Henry Thomas Ryder, L.S.A., Devonport, of Middlesex Hospital; Thomas Robinson Glynn, Liverpool, and Walter Anstice Harvey, South Petherton, Somerset, of St. Bartholomew's Hospital; Arthur Newland Anstey, Adelaide, Australia, of St. George's Hospital; Olliver Thomas Duke, Kennington, of Guy's Hospital; William Moon Rogers, Mauritius, of University College; William Ray, West-square, Southwark, of Westminster Hospital; Edward Wood Forster, Newcastle; Thomas Dalton, M.D. Univ. Edin., Wigton, Cumberland; Edmund O'Leary, Tipperary; Edward Mackey, Birmingham; Alfred Octavius Grosvenor, M.D. Univ. Edin., Alsager, Cheshire; George Massy, Dublin; John Pringle Snowdon, Newcastle; Lionel Dixon Spencer, M.D. St. Andrews, Newcastle; John Moorhead McFarlan, Muiravonside, Stirlingshire; Richard Beverly Cole, M.D. Jeaffreson College, Philadelphia, San Francisco; John Manley, L.S.A., West Bromwich.

At a meeting of the Court of Examiners on the 18th inst., Mr. Charles Strickland (King's College), of H.M.S. *Supply*, Woolwich, passed his Examination for Naval Surgeon. This gentleman had previously been admitted a Member of the College, his Diploma bearing date December 7, 1858.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, November 17, 1864:—

Edwin Child, Richmond, Surrey; Geo. Smith, Kentish-town; Augustus Christian Müller, St. Mary's-terrace; Walter Haxworth, Barnsley; Edwd. Brewster, Grantham; Daniel Webster Tomlinson, St. Mary's Hospital; Henry Richard Smith, Newark.

As an Assistant:—

John Stephen Garman, Western General Dispensary.

Pharmaceutical Society of Great Britain.—Names of Candidates who passed the Major Examination, November 24, as Pharmaceutical Chemists:—

John Gilling, Lincoln: George Goldfinch, Hendon; Sidney Harvey, Canterbury; Joseph Lucas, Birmingham; Thos. Wm. Mercer, Rochdale; Robert Nosworthy, Holloway; Wm. W. Rhind, London; J. Edwin Rickards, Jamaica; John Saville, Howden.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Bell, Hutchinson R., M.R.C.S. Eng., has been appointed House-Surgeon at King's College Hospital.

Casey, Edward, M.B. Lond., has been appointed House-Physician at King's College Hospital.

Clayton, John, M.R.C.S. Eng., has been appointed one of the Visiting Medical Officers of the Banffshire Lunatic Asylum.

Crouch, G. J., M.R.C.S. Eng., has been appointed House-Surgeon to the London Surgical Home for the Diseases of Women, Stanley-terrace, Notting-hill.

Day, Edwin E., M.B., M.R.C.P., has been appointed Physician-Accoucheur to the St. George's and St. James's Dispensary.

Haines, Richard W., M.R.C.S. Eng., has been appointed Resident-Accoucheur at King's College Hospital.

Jones, Llewellyn, M.D. Edin., has been elected Mayor of Beaumaris, Anglesey.

L'Estrange, Francis, L.R.C.S.I., has been appointed Surgeon-Dentist to his Excellency the Lord-Lieutenant of Ireland.

Manson, Alexander J., M.D. Aberd., has been appointed one of the Visiting Medical Officers of the Banffshire Lunatic Asylum.

Rawdon, Henry G., M.D. St. And., has been appointed Lecturer on Pathological Anatomy at the Royal Infirmary School of Medicine, Liverpool.

Roden, Sergeant S., M.D. Edin., has been elected Mayor of Droitwich, Worcestershire.

Sandell, H. W. A., M.R.C.S. Eng., has been appointed Resident Surgeon to the Halifax Infirmary.

DEATHS.

Bowler, John William, R.N., L.R.C.P. Edin., at Portsea, on November 16, Deputy-Inspector-General of Hospitals and Fleets.

Fletcher, James, M.R.C.S. Eng., at Oldham, Lancashire, on November 12, aged 52.

Gent, John S., M.R.C.S. Eng., at Stony Stratford, Bucks, on October 31, aged 69.

Hutchinson, James S., M.R.C.S. Eng., drowned in the Manning River, New South Wales, on August 9, aged 40.

Johnston, Archibald, L.F.P.S. Glasg., at Buccluch-street, Glasgow, on November 8.

Lang, Jeffrey, M.R.C.P. Lond., at the Elms, Ipplepen, Newton Abbott, Devon, on November 12, aged 65.

Longbottom, Dr. George Jackson, at Kalamazoo, Michigan, United States, on October 3, late of Liverpool.

Ormsby, Robert, M.R.C.S. Eng., at Durrow, Queen's County, Ireland, on November 7, aged 55.

Riding, Roger, M.D. Glasg., at 79, Kensington-gardens-square, W., on November 19.

Shearman, Charles I., M.D., at Ingatestone, Essex, on November 16, aged 37.

North Staffordshire Medical Society.—The twelfth annual meeting of this society was held on the 17th inst. at the North Staffordshire Hotel, Stoke-upon-Trent. The secretary's report was read, adopted, and ordered to be printed, from which we gather that the society has held five ordinary meetings during the past year, and that the financial condition of the society is most satisfactory. The papers read have been very able, and many important cases have been narrated (including a case in which the external iliac was tied for femoral aneurism with a successful result), the discussions following all being marked by their practical utility. There was also an animated discussion on the "County Courts' Amendment Bill," recently before the House of Lords, concerning which it was the intention of the society to have presented a petition against the bill had not the Lord Chancellor in the meantime withdrawn it. The retiring president (W. H. Folker, Esq.) read an able address, after which a vote of thanks was cordially given to the past officers. The election of officers for the ensuing year resulted as follows:—*President*—Samuel Goddard, Esq. *Treasurer*—James Yates, Esq. (re-elected.) *Hon. Secretary*—Ralph Goodall, Esq. (re-elected.) *Committee*—Dr. Crean, C. Orton, Esq., John Scott, Esq. (re-elected), Dr. Taylor, and Joseph Walker, Esq. (re-elected.)

Apothecaries' Hall,—The Apothecaries' Company held their anniversary meeting on the 15th at their Hall at Blackfriars, James L. Wheeler, Esq., Master, in the chair, and entertained at dinner a large assembly. Amongst those present were Dr. Watson, Sir J. Ranald Martin, Hon. Mr. Denman, M.P., Dr. Rutherford, Professor Owen, Mr. Fitzgerald, Mr. Cock, Dr. Gull, Dr. Black, Mr. N. B. Ward, Professor Brande, and Mr. George Cooper. After "the Queen," "the Prince and Princess of Wales and Royal Family," and "the Army, Navy, and Volunteers,"—to which Sir J. Ranald Martin returned thanks for the united services—the Master rose and proposed "the Royal College of Physicians." This College, the oldest Medical Corporation of England, was founded by Dr. Linacre, the Physician and Preceptor of Prince Arthur, the elder brother of Henry VIII. He was also officially connected with the household of Henry VII., and that monarch employed him as his Ambassador at the Court of Rome, whence he repaired to Florence and mastered the writings of Aristotle and Galen in the original Greek, and translated Galen into Latin. It was through the influence of Linacre over Cardinal Wolsey that the Royal College of Physicians was founded in the year 1518, and he became its first President. Amongst other eminent men who succeeded Linacre may be mentioned the immortal Harvey, Sydenham, Sir Hans Sloane, Radcliffe, Mead, Sir John Pringle, Dr. William Hunter, and Dr. Matthew Baillie. By the labours of these distinguished Physicians, the bounds of Medical knowledge have been greatly extended. As fellows of the Royal College of Physicians Dr. Wollaston and Dr. Young will ever be memorable; the former as the discoverer of four new metals, and the latter from his having established on a satisfactory basis the undulatory theory of light.—Dr. Watson, as President of the Royal College of Physicians, returned thanks. He considered that the examining bodies were now competing in a spirit of honourable rivalry to secure the best kind of Medical education, and that due care was taken that all successful candidates for their Diploma in Medicine and Surgery should be thoroughly practical men and educated gentlemen. For a quarter of a century he had been accustomed to meet every day two or three members of the Society of Apothecaries, and he must say that he had often received instruction from them.—Mr. Lowe Wheeler, in proposing the health of the Members of the College of Surgeons and their President, Mr. Joseph Hodgson, alluded to the labours of John Hunter on behalf of that College, and those who had adorned, enlarged, and embellished it. He mentioned particularly the late Mr. Clift, Mr. Queckett, and that illustrious morphologist, Professor Owen. He alluded in touching language to the condition of the Surgeons in the army and navy, and he hoped that by the influence of an enlightened public acting on a patriotic Government, such a feeling as that of dislike, apathy, or indifference would not long subsist towards a profession whose mission it was to benefit everybody and to injure nobody.—Mr. Edward Cock having returned thanks for the College of Surgeons, the Master proposed the health of Professor Owen. "Wherever science is cultivated Professor Owen is known. The *Transactions* of all the scientific societies of this country are full of his labours, and he is the author of many original works, and the holder of scientific honours of the highest order. We must not forget the active part he took in the Great Exhibition in England in 1851, and in the Exhibition in Paris in 1855, as well as his most able address as President of the British Association for the Advancement of Science in 1858."—Professor Owen, in impressive and elegant language characteristic of him, acknowledged the toast, and stated that amongst the diplomas which he held there was none that he prided himself more upon than that which he obtained by examination from the Society of Apothecaries. The amount of information he acquired in preparing for that examination he could always refer to. The study of comparative anatomy and natural history enables a man to observe and discriminate accurately, as well as to condense and classify his knowledge, and cannot fail to be of use in after life, whatever may be his calling.—The health of the Master, Mr. James L. Wheeler, to whose talents as well as those of his family, so well known in Medicine and general science, just allusion was made; that of the Wardens, Court of Examiners, and Examiners in Arts, concluded the evening.

Lesion Produced by Lifting Children by the Wrists.—Dr. Bourgeois comments upon an unnamed lesion which is produced by the sudden raising of children of from 18 months to 3 years old by the wrists. Some place its seat in the wrist, others in the shoulder, and the majority in the elbow. Great pain immediately follows the accident, the child's arm hanging down by the side, with the forearm in a state of marked pronation. When the arm is left to itself, supported in a sling, the pain subsides gradually, and in the course of two or three days the normal movements are recovered. When a Surgeon is consulted—and the author has met with more than 150 of these cases—he is not able to detect any displacement, deformity, or tumefaction; but when the child's cries have become somewhat pacified, he finds that it is the movement of the forearm on the arm which gives rise to most of the pain. M. Bourgeois, from a consideration of the anatomy of the parts and the mode in which the force is applied, comes to the conclusion that the lesion consists in a slight displacement of the head of the radius in the direction of its axis; in other words, in a diastasis of the superior radio-cubital articulation, similar to that often observed at the lower end under other circumstances. Seating the child on the lap of an assistant, he grasps the elbow with the palm of the left hand, so as to keep the limb firm by surrounding it with the fingers, and then, taking hold of the lower part of the forearm with the right hand he rotates it outwards, and flexes it at a right angle. A slight cracking is rather felt than heard, and the power of moving the arm is restored at once.—*L'Union Méd.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Jas. Ferrier Clarke.—Napper on "Village Hospitals," price 1s., published by Lewis, Gower-street North, W.C.

D. D. M.—1. A licentiate is a person possessing a licence to practise. A member is a member of a corporation. Each may be duly registered, and is then qualified. 2. He has not the right to append the letters M.D.

M. D.—We regret that want of space prevents our publishing the letter. We fear also that any remonstrance with the managers of the paper named against quackish advertisements would prove entirely lost time and trouble.

A Sufferer.—No person, "chemist" or other, renders himself liable to prosecution for visiting patients at their own homes and supplying them with medicines; but if he charge for the visits and medicines, he is liable. Any private person may use the Apothecaries' Act.

A Fellow.—The list of gentlemen who were examined for the Fellowship of the Royal College of Surgeons on Tuesday, Wednesday, and Thursday last cannot be published until confirmed by the Council, which body will meet next week.

A Provincial Teacher.—From inquiries we have made, it appears that at the examination alluded to *eighty* candidates for the Diploma offered themselves, and only thirteen were rejected—viz., seven from our Metropolitan and six from the Provincial Schools. It is an admitted fact that the men are much better prepared for the ordeal than heretofore.

A Hospital Surgeon and *A New Member* will find in the list published in another page that their suggestions to have the names of the Metropolitan Hospitals added to the names has been adopted.

Pharmacopœia.—We believe that the second edition will not appear for three years at least.

The following subscriptions have been received at the office of the *Medical Times and Gazette* for Mrs. Walker, of Crick:—

T. M. Kendall, Esq., King's Lynn, 5s.; J. B., Edinburgh, 10s.; Dr. Bull, Hereford, £1 1s.

Poor-law Medical Reform.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I shall feel obliged by your finding space for the following reply of the Poor-law Board to the letter you did me the favour to insert in your journal of the 12th inst. You will perceive the Board are not desirous to afford us any assistance; my Medical friends must, therefore, individually see their own members, and endeavour to obtain from them a promise to support a Bill founded on justice. In the course of a short time I will lay a copy of the proposed Bill before the Profession, and elicit from them their opinions on it.

I am, &c.

12, Royal-terrace, Weymouth, November 21. RICHARD GRIFFIN.

"Poor-law Board, Whitehall, November 19, 1864.

"SIR,—I am directed by the Poor-law Board to acknowledge the receipt of your letter of the 8th instant, enclosing an extract from a newspaper report of the proceedings at a meeting of the guardians of the Southampton incorporation relative to the providing of medicines for the poor.

"The Board direct me to express their thanks for your communication. As regards the last paragraph, however, they desire to state that they will not trouble you to send them a copy of the proposed Bill to which you refer. They will be prepared to consider any Bill upon the subject of Poor-law Medical Relief which may be introduced into Parliament by any member of the Legislature, and to give it due attention.

"I am, Sir, your obedient servant,

"Richard Griffin, Esq. "C. GILPIN, Secretary.

Query on Population.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Can any of your readers inform me how to find the actual number of souls (all ages) in any Superintendent Registrar's District or Poor-law Union, and the number of those of all ages under twenty years from the Report of the Census of 1861, published in 1863, or from any other source?

I am, &c.

Rotherham, November 21. INQUISITOR.

Pin Swallowed by a Child of Eight Weeks.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In practice we frequently meet with cases where pins, marbles, halfpennies, and other foreign bodies are swallowed, and after a longer or shorter interval passed per anum, when all danger connected with them ceases; but, so far as I am aware, an instance of a child only eight weeks old swallowing such a dangerous body as a pin has never occurred before, at least I have never read or heard of such a case, and consequently have thought it worth while to send you the particulars of a case which happened in my practice the other day.

On the 12th inst. I was requested by Mr. R., a decent tradesman of this town to come to his house immediately, as his child had swallowed a pin. On arriving I found the mother in great consternation: the child was lying on her knee looking as if nothing had happened to it. She informed me that she was attracted to the cradle by the child crying, on lifting it she thought something was in its mouth: putting her finger in, she was surprised to see a pin, which, on attempting to get out, somehow slipped down the throat head first.

As the child appeared quite well, I advised her to do nothing but keep it quiet, to watch the motions, and see if the pin came through.

On my visit the following day I was shown the pin on a cloth just as it had passed—it was a common pin one inch in length, and must have passed along the entire intestinal canal in sixteen hours.

Alloa, November 21. I am, &c. JOHN DICKIE, M.D.

The Griffin Testimonial Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following substriptions have been further received on behalf of the above fund:—J. E. Moreton, Esq., Great Boughton, 10s. 6d.; Dr. T. P. Parker, Sunderland, 10s. 6d.; William Kimbell, Esq., Solihull. 5s. Amount previously announced, £102 1s. 6d. Received at *Lancet* office, £6 14s.

I am, &c.

ROBERT FOWLER, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, November 23.

The Goss Testimonial Fund.

The following subscriptions have been received:—Hy. Bateson, 10s. 6d.; H. Buss, 10s. 6d.; C. C. Blades, 10s. 6d.; Thos. Brown, 10s. 6d.; J. W. Carpenter, 10s. 6d.; W. S. Cortis, 5s.; H. Dobell, 10s. 6d.; W. D. Ditchett, Louth, 10s. 6d.; A. Ebsworth, 10s. 6d.; E. F. Fussell, Brighton, 10s.; Ed. Head, 10s. 6d.; W. T. Iliff, Jun., 10s. 6d.; J. W. Jones, 10s.; H. Jeaffreson, 10s. 6d.; T. M. Kendall, King's Lynn, 10s.; J. T. Mitchell, 10s. 6d.: Ed. Morse, 10s. 6d.; C. W. Otway, 10s. 6d.; Jas. Palfrey, 10s. 6d.; G. P. Rugg, 10s. 6d.; F. Smith, 10s. 6d.; A. T. Smith, 10s. 6d.; W. H. Smith, 10s. 6d.; N. Stowers, 10s. 6d.; D. Taylor, 10s. 6d.; J. R. Tunmer, 10s. 6d.; S. Wilks, 10s. 6d.; E. Wright, 10s. 6d.

COMMUNICATIONS have been received from—

Mr. J. Z. LAURENCE; WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON; Mr. S. J. STRATFORD; Dr. J. FERRIER CLARKE; Dr. JOHN WHITMORE; APOTHECARIES' HALL; Mr. JAMES BRUCE; Dr. A. MACAULAY; OBSTETRICAL SOCIETY OF LONDON; Mr. CHARLES HAWKINS; Dr. JOHN DICKIE; Mr. W. TALLEY; Dr. W. MACKENZIE; ERIGENA; Dr. HUNTER; Dr. HARRY LEACH; INQUISITOR; F.R.C.S.; Mr. R. GOODALL; Mr. R. GRIFFIN; A SUFFERER; Mr. N. STOWERS; Dr. R. FOWLER; Dr. E. CASEY; PHARMACOPŒIA; Dr. FOTHERBY; M.D.; HARVEIAN SOCIETY OF LONDON.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 19, 1864.

BIRTHS.

Births of Boys, 944; Girls, 1016; Total, 1960.
Average of 10 corresponding weeks, 1854-63, 1733·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	902	840	1742
Average of the ten years 1854-63	657·3	626·0	1283·3
Average corrected to increased population..	..	..	1411
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	1	13	11	1	3	11	4
North ..	618,210	4	10	16	3	8	27	5
Central ..	378,058	2	7	12	..	7	9	1
East ..	571,158	2	15	24	1	10	15	7
South ..	773,175	4	18	22	2	10	24	4
Total ..	2,803,989	13	63	85	7	38	86	21

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·081 in.
Mean temperature	45·5
Highest point of thermometer	54·3
Lowest point of thermometer	35·2
Mean dew-point temperature	42·1
General direction of wind	S.W., S.S.E
Whole amount of rain in the week	0·88 in.

APPOINTMENTS FOR THE WEEK.

November 26. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

28. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

29. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

30. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

HUNTERIAN SOCIETY, 8 p.m. Dr. Greenwood, "On the Nature and Treatment of Cholera in the Collapsed State." Mr. Hinton, "On certain Forms of Obstruction of the Eustachian Tube and their Treatment."

December 1. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

HARVEIAN SOCIETY OF LONDON, 8 p.m. Dr. Graily Hewitt, "On the Inflexions of the Uterus and their Treatment."

2. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

WESTERN MEDICAL AND SURGICAL SOCIETY, 8 p.m. Mr. E. B. Brodhurst, "On Bony Anchylosis."

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ORIGINAL LECTURES.

LECTURE

ON THE

EARLY DIAGNOSIS OF PHTHISIS AND ITS DIFFICULTIES.

By ARTHUR LEARED, M.D.,

Physician to the Great Northern Hospital, and late Lecturer on the Practice of Medicine at the Grosvenor-place School of Medicine.

GENTLEMEN,—The vast importance of physical diagnosis in diseases of the lungs, and of phthisis in particular, need not be here insisted upon. It is worthy of all the skill, the judgment, and the experience you can bring to bear upon it. From the time of Laennec to the present day this part of Medicine has engaged the attention of many eminent men, and the result is an accumulation of knowledge which is not a little embarrassing. Indeed, there is as much danger lest the student should give undue importance to some physical signs as that he should pass over others. Do not suppose it is my present intention to undo what I have been at so much pains previously to impress upon you—the importance of every physical sign taken in conjunction with other and with general symptoms—I wish simply to point out some risks of error which are sure to occur, and to put you on your guard against the very fulness of your knowledge. What a searching question is that so constantly addressed to us after a stethoscopic examination, "Are the lungs sound?" How much depends on the simple "Yes" or "No." So implicit is the faith reposed in this part of Medical science that our reply is generally regarded as a solemn decision between life and death, and an error of judgment on either side may be the cause of the most serious consequences. With all this confidence placed in us, it must not be denied that mistakes are not infrequent, and we have now to investigate the causes. Cases of unusual obscurity now and then occur, but the number of these diminishes in proportion to the skill and proficiency brought to bear upon them. It cannot be denied that a few defy even the efforts of the most practised, and are therefore beyond human control. The necessity for caution in doubtful cases cannot be too strongly impressed upon you. Let no feeling of display or desire to please on your part—let no pressure on the part of patient or friends induce you to utter the "yes" or the "no." Explain frankly the difficulties you labour under, or reply in guarded and general terms until time and future opportunities enable you to speak more definitely.

Sheer ignorance is of course an occasional cause of mistake, but this is so unpardonable, and its remedy is so plain, that no comment is required here.

Misapprehension of knowledge is a cause of error which claims greater attention. Let us consider that disease in which errors of diagnosis are most frequently made. In phthisis this liability is proportionate to the stage of the disease at which the diagnosis is attempted. The citadel is often sapped before the enemy has made any open advances. It is of the highest importance, therefore, to detect any damages while they may be still repaired, and before irreparable mischief has been done. It is easy work to detect tubercles in the early stage if massed together, and still easier when they are softened, or when, by the rejection of this softened material, a cavity has been formed, compared with the delicacy and tact required to ascertain the existence of a few crude and scattered deposits. Not only is a nicely discriminating ear now required, but the mind must be trained to analyse the impressions received from the ear, and the greatest care must be taken lest the judgment should be biassed by preconceived opinions. It must always be borne in mind that the cough, the loss of flesh and strength, and all the other vital symptoms may be due to various other causes besides phthisis. For the reasons given it is a good rule, when possible, to make your examination of the chest before you have heard any statements from the patient or his friends.

The physical signs mainly relied on for the diagnosis of phthisis in its early stage are these. A duller sound on percussion over the apex of one lung compared with that over the other lung, local deficiency of the respiratory sound, prolonged expiration, a coarseness or a more or less tubular character of the breath sounds, jerky respiration and increased resonance of voice. In the diagnosis of phthisis as well as of some other diseases, no physical sign is more valuable than dulness on percussion when well marked, since it unmistakeably indicates that the spongy tissue of the lung is infiltrated or displaced by a foreign material. When, however, the dulness merely amounts to a "shade," great care must be exercised to prevent mistakes. A slight inclination of the body to one side from the patient's not sitting straight, by which the parts would be drawn together and consolidated, even the greater muscular development of one side of the thorax than of the other, as well as other conditions, may cause a spurious dulness. Not unfrequently the ear of the observer is deceived, and I have known opposite opinions to be tenaciously held, even by men of experience, as to the existence or non-existence of this physical sign.

Before we go into the subject of the breath-sound modifications, let me very briefly remind you of some of the phenomena of healthy respiration. When you apply a stethoscope to any part of the front of the chest, except the sternal region, you hear during inspiration a low diffused blowing sound, which may be closely imitated by getting a person to blow through a sponge while a stethoscope is applied to it. You should associate the sound in question with the free passage of air through minute communicating passages, as are known to exist in the lungs. At the sides of the thorax, you will find the sound of the same character, and also posteriorly, except a portion bounded at each side by the scapulæ which corresponds to the position of the roots of the lungs. These roots being partly formed by the primary bronchi, the passage of air through them gives exactly the sound we might expect. It is like that produced by blowing through a tube of moderate size, and is therefore well termed a tubular sound. At the top of the sternum, but seldom extending more than an inch on each side from its centre, you generally find the same kind of sound, and it is derived from the same source.

The sound made by inspiration corresponds with that made by expiration, except that the expiratory is a shorter and a fainter sound; so faint is it, indeed, that perfectly healthy expiration has been stated to be unattended by sound. This is certainly a mistake; some amount of sound may always be detected on close attention.

Such is a general outline of the breath-sounds, but taking those of any individual as a standard great variations will be discovered. The abdominal organs preponderate over the thoracic in children, and the lungs are proportionately less developed than those of adults. To make amends for their want of capacity, the motions of the organs are more active and the vesicular murmur louder and coarser. The same kind of breathing, well termed puerile, is often discovered in the adult owing to an increased action in one lung due to some interference with the action of the other.

In some adults, too, the breath-sounds are naturally puerile, and in such cases either breadth or depth of thorax is usually wanting, the capacity of the chest being, therefore, less than the average.

Sometimes, on the contrary, you will meet cases in which the respiratory sounds are so low as to be almost inaudible. The fact of the phenomenon not being localised will generally clear up the diagnosis. It is not amiss, however, to point out the danger of haste in making an examination of the chest. Not long ago I was consulted in some apprehension by a Medical man about a case of this silent respiration. He was unable to hear any sounds whatever within the thorax except those of the heart. I was able to assure him, however, that, according to my experience, it was a matter for congratulation with the patient. In fact, this kind of respiration indicates healthy lungs of large volume. You will find the subjects of it to be large, deep-chested individuals—men who might excel in running, wrestling, or other exercises, for which a good wind is indispensable,—or women who, if singers, are remarkable for power and sustainment of voice.

Instead of the soft, diffused, respiratory sound, you will sometimes find it harsh or coarse, as it is termed. When confined to a particular spot, this is undoubtedly a valuable physical sign of phthisis. It seems to be caused by a preponderance of the sound formed in the terminal bronchi over that formed in the air-passages. I suspect that its occurrence in phthisis arises from the pressure of crude tubercles upon these bronchi, so that the rush of air through the strictured parts is increased. Let me impress upon you the fact, however, that in some healthy persons the breath sounds have this harsh character naturally.

Prolonged respiration is a reliable sign of phthisis, but is by no means infallible. It exists in some cases in which there is

apparently no disease of the lungs whatever, and you must also bear in mind that it is a constant effect of emphysema in which the elastic power of the air-vesicles is impaired. Of less value as a physical sign is jerky or wavy respiration, in which the inspiratory act is broken or divided into two or more separate acts. It sometimes occurs in connexion with phthisis, but more frequently in persons of the nervous or hysterical tendency, in whom the lungs are perfectly healthy.

Increased resonance of the voice, even when confined to one lung, or even part of a lung, is by no means a reliable sign. Practical men are agreed that it often depends on conditions which bear no necessary relation to the presence or absence of consolidation of the lung tissue. In all cases where the diagnosis is at all obscure it is absolutely necessary that the chest should be completely exposed, and that anything in a state of tension should be loosened. I have known the creaking of the braces or of the corset caused by the movement of the chest to be mistaken for crepitation in the lung. That peculiar single click sound resembling what we may suppose the action of a valve in the lung would yield, and which is so pathognomonic of phthisis, is also liable to be imitated. Slight motions of the adjoining shoulder-joint sometimes produce sounds of this kind by which the inexperienced may easily be misled.

Other matters there are too complicated or too minute to be described by words, in which experience alone can direct you. Let me repeat, however, that I am far from wishing either to exaggerate the difficulty of physical diagnosis or to underrate its value. My object has been to anticipate as much as can be done in words what can otherwise only be the result of long experience. Assuming that you have mastered the intricacies of the diagnosis of phthisis, I have endeavoured to point out certain mistakes to which you are especially liable at a period when experience has not yet come to the aid of judgment. It is my intention on another occasion to direct your attention to certain matters which tend to confuse in the diagnosis of diseases of the heart.

THE OPTICAL DEFECTS OF THE EYE.

A COURSE OF LECTURES DELIVERED DURING THE SUMMER OF 1862 AT THE

Surrey Ophthalmic Hospital,

By J. ZACHARIAH LAURENCE, F.R.C.S., M.B. Univ. Lond.,
Surgeon to the Hospital.

(Continued from page 510.)

PRESBYOPIA.

HAVING now considered the two chief anomalies of refraction, myopia and hypermetropia(a), we are prepared to investigate those of accommodation. These are four in number—(1) Paralysis of accommodation; (2) deficiency of accommodation, presbyopia; (3) slowness of accommodation; (4) spasm of accommodation. Of these four species, the second is by far the most common, and, therefore, will claim our almost exclusive consideration.

The normal eye of a young subject can generally accommodate to as close a distance as four inches, and even closer. But, as every one knows, persons in advanced years are, if they do not use glasses, obliged to read, work, etc., at a considerable distance from the eye. In other words, their near-point has receded. If you were to be guided solely by the etymology of the word presbyopia, you might be led to believe this recession of the near-point only occurred in old persons; but the fact is, that it commences in early life (according to Donders, from the tenth year of age), progressively increases, but does not come to be felt as a substantial annoyance till after about the fortieth year. For practical purposes it is best to take presbyopia in this limited sense. When shall we, then, say presbyopia commences? Donders says, when the near-point has receded beyond eight inches from the eye: I think about ten inches would be a more practical standard. However, the chief circumstance I wish you to observe is that the definition is a purely artificial one, founded on the conventional exigencies of life. Indeed, presbyopia might be said to vary with the pursuits of a person; for, accordingly as these demand a greater or less closeness of vision, will he, or will he not, feel any inconvenience from his defective accommodation. In this sense, for example, a tailor or a student becomes presbyopic at an earlier age than a seaman or a soldier.

The estimation of the *amount* of presbyopia in any given case will now claim our attentive consideration, as it affects the three classes of eyes.

1. *Presbyopia in Normal Eyes.*—Let a person be able to see with his naked eyes distant objects, but not near ones distinctly any closer than, say, fourteen inches, what amount of accommodation does he possess?—Answer: $\frac{1}{14}$ (*vide suprâ*).

There is one objection that may be urged against this method of estimation, viz., that the convergence of the eyes for fourteen inches is too low to elicit all the energy of accommodation the patient is actually endowed with. We may, however, control our observations by putting the patient on a pair of strong convex glasses—say a 10-inch pair—and then seeing how much nearer he can accommodate than ten inches from the glasses. This was the plan adopted by Macgillavry; (a) but as the learned author of an elaborate article in the 57th vol. of the *British and Foreign Medico-Chirurgical Review* very justly observes—"It is advisable not to use too strong glasses, for, owing to the increased size of the image, the circles of dissipation are not so soon perceived."

According to our assumed standard near-point of eight inches for the commencement of presbyopia, the minimum amount of accommodation a person must possess *not* to be presbyopic is $\frac{1}{8}$; but in our supposed case he has only $\frac{1}{14}$. Therefore the *difference* between these two fractions $-\frac{1}{8} - \frac{1}{14} = \frac{1}{19}$ (nearly)—expresses the deficit of accommodation—the presbyopia—the patient labours under. For distinct vision at eight inches he finds himself *minus* such an amount of accommodation as is equivalent to a 19-inch convex glass lens. If we therefore artificially supply him with such a lens, we at once correct his presbyopia, always with the proviso that, if he himself at the same time employs *all* his natural accommodation ($\frac{1}{14}$), he will then be able to read, work, etc., at eight inches. Few persons, however, would be able to endure such a strain on the ciliary muscle for any length of time without fatigue (asthenopia); but, on the other hand, few persons desire to employ their eyes continuously for so close a distance as eight inches. For such convenient distances as 10, 11, or 12 inches, convex glasses of 19 inches focus will answer admirably without overtaxing the patient's natural powers of accommodation. Thus, *e.g.*, for reading at 12 inches he will only have to use $\frac{1}{32}$ accommodation, which is about half of the entire amount he has ($\frac{1}{32} : \frac{1}{14} = \frac{1}{2} : 1$, nearly). At 19 inches off, with his presbyopic glasses of $\frac{1}{19}$ on, he will, of course, have to entirely suppress his accommodation. Beyond that distance he will not be able to see at all (nor will he require to do so) with his presbyopic glasses on.(c) If $\frac{1}{A}$=the presbyopic's natural accommodation, the glass he requires is then given by the formula, $\frac{1}{8} - \frac{1}{A} = \frac{1}{f}$, where f = the focal length of the required glass. This result of theory must, however, always be checked by actual clinical observation. As a rule, on account of the convergence of the optic axes, the patient generally prefers a lower glass than the one given by the above formula. I may say, generally, that in prescribing a pair of glasses for a presbyopic, your object should be to reinforce his defective accommodation by convex lenses, neither so strong as to supersede his own remaining natural accommodation, nor so weak as to tax it further, than it admits of. The following table from Dr. Kitchener's "Economy of the Eyes" may give a general idea of the glasses required at different periods of life:—

Years of age.	Inches of focus.	Years of age.	Inches of focus.
40	36	70	12
45	30	75	10
50	24	80	9
55	20	85	8
58	18	90	7
60	16	100	6
65	14		

2. *Presbyopia in Myopic Eyes.*—(d)You will in practice find

(a) For an account of Astigmatism *vide* the *Medical Mirror*, No. 1.

(b) Onderzoekingen over de Hoegrootheid der Accommodatie. Utrecht. 1858.

(c) I have, at the risk of being prolix, adduced these various illustrations of presbyopia in order that the reader, by perceiving their several truths, may satisfy himself that he has thoroughly understood the points at issue.

(d) Mr. White Cooper quotes several cases of the kind at p. 101, *et seq.*, of his treatise "On Near Sight, Aged Sight, etc."—a work which, although not up to the knowledge of the present day, may still be advantageously consulted on many practical details in the management of cases of defective vision.

that all the higher myopic eyes, as a rule, are more or less deficient in accommodation—more or less presbyopic, we might almost say. But presuming we adopt our previous standard of presbyopia, it is clear that the term is inapplicable to all degrees of myopia above $\frac{1}{8}$; for their far-point is already less than 8 inches, and *à fortiori* their near-point. But when we come to deal with low degrees of myopia you will find, at a certain age, presbyopia a very usual concomitant. For example, a person's eye presented this combination—(1) the far-point was 20 inches; (2) the near-point 12 inches. On account of (1) the patient is myopic; of (2) he is also presbyopic. He is short-sighted and long-sighted at the same time. His far-point is too close; his near-point too far. In fact, his range of distinct vision with the unaided eye is comprised in a line of 8 inches. His power of accommodation, $\frac{1}{A}$ is $\frac{1}{12} - \frac{1}{20} = \frac{1}{30}$.(e) What glass would the eye require (abstracting ourselves for a moment from the co-existing myopia), using its entire $\frac{1}{30}$ of accommodation, to read distinctly at 8 inches?

$$\frac{1}{8} - \frac{1}{30} = \frac{1}{10\frac{10}{11}} \text{ nearly:}$$

a convex glass of 11 inches focal length, therefore, corrects the presbyopia, but we must also correct the myopia (of a $\frac{1}{20}$). In other words, from $\frac{1}{10\frac{10}{11}}$ we must subtract $\frac{1}{20} = \frac{1}{24}$ nearly.(f) A convex glass of 24-inches focus is the glass required to correct simultaneously the presbyopia and the myopia. Generally, if $\frac{1}{A}$ = the patient's accommodation, $\frac{1}{M}$ his myopia, the glass required to neutralise his presbyopia and myopia together is given by the formula $\frac{1}{8} - (\frac{1}{A} + \frac{1}{M}) = \frac{1}{F}$, F being the focal length in inches of the required convex glass. This patient required a 20-inch concave for distance, a 24-inch convex for near objects. If $\frac{1}{A} + \frac{1}{M}$ is greater than $\frac{1}{8}$, $\frac{1}{F}$ is negative. In other words, the resulting fraction expresses the power of the *concave* glass the patient will require for near objects. This, of course, will always be a lower power than the one he uses for distance.

To take an example. Let $\frac{1}{A}$ in a given case = $\frac{1}{11}$, and $\frac{1}{M} = \frac{1}{14}$, then $\frac{1}{8} - (\frac{1}{A} + \frac{1}{M}) = \frac{1}{8} - (\frac{1}{11} + \frac{1}{14}) = \frac{1}{8} - \frac{1}{6} = \frac{1}{24}$. This patient requires a 14-inch concave for distant objects, a 24-inch concave for near ones.

These results of calculation applied to practice will be mostly found correct, but must, notwithstanding, always be checked by clinical experience of the case itself.

(3). *Presbyopia in Hypermetropic Eyes.*—A little reflection will show that in this combination the amount of latent hypermetropia is too small to require being taken into account. Having ascertained the amount of hypermetropia present, we may, of course, from the position of the near point, readily estimate that of the presbyopia. For example, a person has a hypermetropia of $\frac{1}{10}$, but with his 10-inch convex glasses cannot see nearer than 24 inches. To see at 8 inches he will require glasses of $\frac{1}{10} + \frac{1}{8} - \frac{1}{24} = \frac{1}{6\frac{1}{2}}$ nearly; with $5\frac{1}{2}$-inch convex glasses to read at 8 inches he will have to use all of his natural accommodation ($\frac{1}{24}$), but does not for any distances further than 8 inches.

What is the proximate cause of presbyopia? It may be due to deficient power of the ciliary muscle or to increased hardness of the lens. It can hardly be called a disease any more than grey hairs or atrophy of the lower jaw. Donders and myself have observed that with advancing age persons may grow not only presbyopic, but at last actually hypermetropic (probably from loss of tonicity of the ciliary muscle), so as to require convex glasses even for distance. Porterfield (vol. ii., p. 69) observed the same, "that long-sighted people at last cannot see at all without the assistance of spectacles."

(To be continued.)

(e) The rationale of this formula is as follows:—If the eye were a normal one $\frac{1}{A}$ would = $\frac{1}{12}$. But we know the eye's refractive power is too great by a quantity = a $\frac{1}{20}$ (convex glass lens). Thus part of the $\frac{1}{12}$ is really due to this $\frac{1}{20}$. We must, therefore, *subtract* this $\frac{1}{20}$ from the $\frac{1}{12}$, in order to estimate the amount of *active* accommodation the patient *bonâ fide* possesses—indeed, the myopic condition of such an eye is by some authors considered to be the result of a certain portion of the patient's accommodation having become, so to say, *fixed* by partial spasm of the ciliary muscle. Correct the myopia ($\frac{1}{20}$) by a 20-inch concave glass, and the near-point is no longer at 12 inches, but at 30 inches.

(f) We may carry this out in practice by ascertaining the near-point of the patient with his reducing concaves on. This, in the above case, is 30 inches. From $\frac{1}{8}$ subtract $\frac{1}{30}$, and from the result $\frac{1}{20}$, and the final result will be $\frac{1}{24}$, as before.

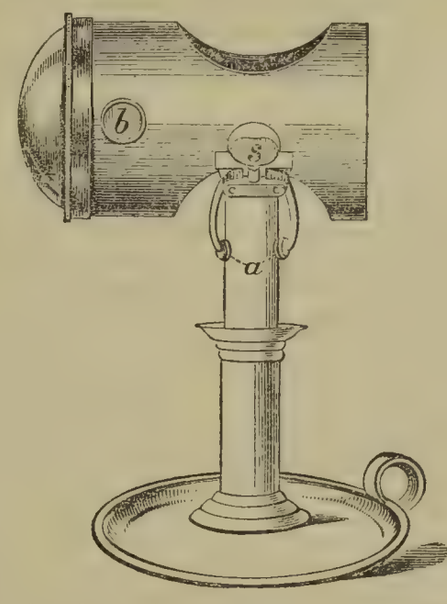
ORIGINAL COMMUNICATIONS.

THE LARYNGOSCOPIST'S LIGHT-CONCENTRATOR.

By MORELL MACKENZIE, M.D., Lond., M.R.C.P.,
Physician to the Dispensary for Diseases of the Throat.

Whilst it is quite possible in simple cases for the practised laryngoscopist to make a satisfactory examination with a very inferior light, the advantages of good illumination can be denied by none. The great number of different kinds of illuminating apparatus invented by foreign laryngoscopists testify not only to the importance of a good light, but also to the fact that no one apparatus has sufficient merit to come into general use.

In constructing a light-concentrator, the objects in view are—first, to improve the light; secondly, to confine the light so that the rays only pass out in one direction; thirdly, to make the apparatus applicable to all sorts of lights (gas, oil, and candle); and fourthly, to make it of convenient shape and size, so that it can be easily carried about. The first requisite is obtained by placing a lens at its focal distance in front of the flame; the second, by fixing the lens at the end of a cylinder which is closed at the opposite extremity. In the upper and under surfaces of the cylinder is an aperture through which the chimney of the lamp passes. The two first indications have been attended to with varying success by different inventors; but the last two have been altogether disregarded. My light-concentrator, which is here figured, will,



I think, be found to give a more powerful light than those hitherto in vogue, whilst its extensive application and convenient size admit of no questioning. The lens is plano-convex, has a diameter of two and a-half inches, and is the third of a sphere. The plane surface of the lens is placed next the flame. The cylinder in which the lens is fixed is three and a-half inches long; and there is a round opening two inches and a-quarter in diameter in the upper and under surface of the cylinder through which the lamp-chimney or candle pass. At the lower aperture is a screw (S), by turning which two arms (a), one on each side of the aperture, are made to approach each other, and embrace either the lamp-chimney or candle, as in the woodcut. On each side of the lens two little ivory buttons (b) covered with cork are let in to the metal cylinder. This enables the Practitioner to take hold of the concentrator even when the metal cylinder is extremely hot. This apparatus can be used with any kind of lamp or candle. The arms will even grasp the narrow stem of a single gas-jet. By means of it I have even demonstrated my larynx with the taper I use for sealing letters. After this description of the apparatus it is scarcely necessary to observe that the Practitioner who carries my light-concentrator with him will be sure of always having an excellent light at his command. The light of a candle increased by this concentrator is equal to that given by an ordinary moderator. Besides the illuminating apparatus just described, I have had a smaller or miniature concentrator constructed. The principle is the same in both; but in the

latter the metal cylinder is only two inches in length and an inch and a-half in diameter: it is only suited for the small paraffine lamp which is sold with it. This lamp, which measures only four inches from its foot to the top of the chimney, is like a little vial, and has a metal screw-stopper, so that it can be carried about with safety. Of the two, I recommend my larger concentrator, because in using the smaller apparatus the body of light, though very brilliant, has a very small diameter: with it, therefore, those who are not much practised in the use of the laryngoscope find it difficult to keep the reflector in the exact line of light. These light-concentrators are made by Mr. Mayer, of 51, Great Portland-street.

13, Weymouth-street, Portland-place.

CASES OF SOFTENING OF THE BRAIN AND SPINAL CORD.

By JOHN W. OGLE, M.D., F.R.C.P.,
Assistant-Physician to, and Lecturer on Medical Pathology at, St. George's Hospital.

(Continued from page 566.)

Case 44.—Michael Q., aged 24, admitted October 25, 1831, into the Hospital at Malta. He had been ailing for some time, and was unusually drowsy, and had been in Hospital several times for syphilis. It used to be remarked also that he was in the habit of singing frequently, and most agreeably, during the night when asleep, although, when awake, he had not any taste for singing.

Having been complaining of pains in the head and being unwell several days, on the day of admission he fell down insensible, foamed at the mouth, and had convulsive twitching of the limbs. In a few minutes he recovered; but when brought to Hospital he was paralytic on the left side; his articulation was very indistinct, and the tongue was protruded to the left side; pulse slow and feeble; skin coolish. He was also drowsy and oppressed, and said his head, which he often rubbed, was very cold. In spite of copious venæsection (℥ xxx.) and strong purgatives, he became more restless, and shortly quite unconscious. Grinding of the teeth ensued, and convulsions of the right arm and leg. He became comatose, the pupils being sensible, nevertheless, and no stertor existing, and he died the day after admission.

Post-mortem Examination.—Cranium: Vessels and sinuses of cerebral membranes very full of blood. On attempting to remove the pia mater, portions of the cineritious parts of the brain in various places, which were very softened, were torn away with it: this was specially so at the superior and inferior surfaces of the anterior parts of the brain. The pons Varolii and crura cerebri were of firm consistency. The septum and fornix were also softened. Much clear fluid existed in the ventricles. Moreover, the *internal carotid arteries* within the skull were thickened and enlarged, and *plugged with firm fibrine*, which had evidently coagulated before death. The *communicating arteries* also contained similar coagulum. It was remarked that these two branches united at one point, and inosculated there, a small vessel rising from the junction. Thorax: Heart natural; increased pericardial fluid; pleural adhesions, one being somewhat hepatised, and bronchial glands very enlarged. The thoracic duct was found, a little above the diaphragm, to cross from the right to the left side, and then to ascend. Other organs natural.

P.S.—Also one of Dr. Davy's cases.

Case 45.—David L., aged 45, a stout man, and rather intemperate, was admitted October, 1832, into the Hospital at Malta. Health generally good; but three months previously had some dyspnœa on exertion. When admitted there was dyspnœa, relieved by lying down, pain in the chest, anxious countenance, rapid, full, and intermitting pulse, frightful dreams, etc. He was bled largely with advantage and took digitalis. After leaving the Hospital, he was re-admitted November 21, with general dropsy, dyspnœa, and increase of symptoms, and dulness, on percussion, of the right lung. Treated by purgatives, diuretics, etc.; but on December 11 sudden orthopnœa and collapse came on. Attempts were made to bleed him; but very little blood flowed until stimulants were given, when blood came freely, giving much relief. He again became worse, and was again bled, but improved until the 20th, when another paroxysm came on, with delirium, and he died.

Post-mortem Examination.—Thorax: A large quantity of fluid existed in both pleural cavities along with partial adhesions. In the superior lobes of both lungs were large dark heavy patches, impervious to air; otherwise the lungs were natural. Lining of bronchi very red. The great sympathetic nerve was rather small, and its sheath somewhat infiltrated with serum. *It adhered to an exostosis of one of the transverse processes of the vertebra* corresponding with the third rib. Increased pericardial fluid existed, and the heart was very large, with large valvular openings; lining of aorta at one part with commencing disease; no disease of the cardiac valves. Abdomen: Increased peritoneal fluid; liver congested; kidneys congested, containing cysts. Cranium: The posterior part of the anterior lobe of the left cerebral hemisphere presented a patch of softening about equal in size to that of a walnut. This softened portion was of quite pultaceous consistency. There was but little fluid beneath the arachnoïd or in the ventricles.

P.S.—This case also given to me by Dr. Davy.

Case 46.—John L., aged 50, was said to have been "heavy and sluggish" for several months without any known cause. He was somewhat intemperate, and excepting syphilitic affection and occasional attacks of dyspepsia, had enjoyed general good health. He had used mercury. When admitted into the Regimental Hospital at Malta, March 6, 1832, his expression was fixed and heavy, articulation difficult, and he was suffering from headache, which in a few days, and in spite of venæsection, counter-irritation, cold applications, and the use of tartar emetic, etc., was succeeded by drowsiness and low muttering delirium, and by loss of power in the *right* side of the body. Eventually he became quite comatose, and so died April 1.

Post-mortem Examination.—Cranium: Bones of skull thick; inner table strongly marked by arterial furrows; vessels of dura mater more turgid than natural, and attached to its inner surface on the right side close to the superior longitudinal sinus was a bone-like concretion, with a spiculum projecting from it; the substance of the cerebrum, specially the posterior part of the left hemisphere, was much softer than it should be, and near the upper surface it was distinctly disorganised and pulpy, and of a red and white colour intermixed; very slight fluid existed in the lateral cavities, but more than usual at the base of the brain; the parieties of the fourth ventricle were softer than they should be, and the base of the cerebrum was also generally softer than natural; vertebral arteries unusually large; *and both the internal carotids just after entering the cranium were found obstructed by coagula, firmly adherent and evidently having been formed during life.* Thorax: Lower parts of lungs congested; mucous tract covered by muco-purulent fluid. Abdomen: Organs healthy.

P.S.—This case also given to me by Dr. Davy.

(To be continued.)

ON

THE TREATMENT OF MALARIOUS FEVER.

By E. HARE,
Deputy-Inspector-General of Hospitals, Bengal.

(Continued from page 565.)

All the Calcutta Fevers Malarious—All Cured by Quinine—Treatment a Test of Disease—Necessity of Further Antidotes.

I will give here a passage from the Medical Board's report, which they have selected from my monthly reports to them, and thus authenticated with their approval.

I write, p. 21—"When I arrived in Calcutta it is known to the Board, through my first report, how anxious I was to ascertain what varieties of fever were met with in Calcutta. I felt that the success of my experiment in fever depended on this knowledge; for I could not but anticipate great mortality from my large doses of quinine if there were met with here many varieties of fever, not malarious. This accident did occur in some cases of small-pox and measles which were sent to my ward as fever in their early stages. It may be conceived, therefore, how carefully I examined every author I could meet with. These authors told me nothing. None of them even attempted to classify fevers by their causes. All that they give is a few fevers named after some prominent variety in their symptoms—such as intermittent, remittent, continued, congestive, inflammatory congestive, ardent, etc. No author attempts to prove their causes; or if they do it is in a very obscure way. Twining, for instance, in a note, attributes fevers to the irritation from inflammation and congestion of internal organs; Johnson, to sudden changes of temperature

and congestion of the liver; others, to sudden cold, and so on. Now, I claim as my own that I have clearly ascertained this point; out of 421 cases of fever which I have treated here during all the seasons of the year, many of these varieties must have occurred, and yet they have all been cured by quinine; not cured by quinine mixed with calomel and purgatives, but by quinine alone, and given in such enormous doses that it must have caused death, had the liver, checked perspiration, or any other such cause been the origin of the fever.

"All these fevers have, moreover, been cured at once, for I think I may safely challenge a comparison of my average time of treatment with any other returns of Calcutta fever.(b) My average period, I think, will be found much smaller, and the improvement has followed instantly on giving the remedy. I have had no cases such as are found so plentifully in the diaries here, to-day improved, to-morrow worse, and all the phases of a fierce struggle between a strong constitution and the disease. I have really had no cases I could describe, except that they came in bad, were next day better, and on the third or fourth day convalescent. I have had no black tongues, no nights of delirium, etc., etc., which are the substance of our recorded cases of fever. The disease is checked by quinine in twenty-four hours, and finally removed in forty-eight, weakness only remaining to detain the patient in Hospital. No leeching, no blisters, no foul evacuations by stool. It is one rapid progression, from often the last extremity to permanent health. I reason, therefore, as Dr. Holland reasons, that if the same antidote cures all the 421 fevers which I have treated this year, viz., continued, congestive, etc., they must all have had one and the same cause, viz., malaria. *Naturam morborum remedia ostendunt;* and, as Dr. Holland says, 'The treatment and theory of disease may be rendered by this principle mutually corrective of each other, viz., the cause of the disease ascertained from the effects of the remedy, and the right remedy ascertained from the cause.'

"Dr. Holland lives in a society tainted by gout. We in India practise among patients who are universally affected with malaria. There is this difference, however, between us, and it is much to my advantage,—colchicum purges, and is a diuretic, and may cure many diseases therefore, such as repletion, inflammation, etc., by its general antiphlogistic action; but with quinine it is not so, and therefore it is by far the most important test. Again, Dr. Holland had but one test; I have two—viz., quinine and arsenic; and the latter I know from experience to be in many cases a still more powerful antidote than quinine; (c) and it also produces no evacuation, for it ought never to be given in such doses. There can be, therefore, no doubt of the truth of the principle, and the ample means we have of accomplishing the full design. And let it be well considered how great that design is. It is a classification of all malarious diseases under their true causes; and these diseases are the scourges of mankind. It gives us the certainty of treating them by direct antidotes instead of by the common antiphlogistic system. It will give us, also, all the varieties of symptoms caused by the malarious poison with such minute exactness as to excite a hope of ascertaining what that poison is, certainly of at once detecting the error if a wrong one be proposed."

The importance of this reasoning will more fully appear when, as I propose to do, I discuss in my next paper the difference between malarious and common dysentery, and the very marked difference of treatment which they individually require. I would also here throw out a hint to our English Practitioners to test a few of their spring and summer fevers by this method. I have a very vivid recollection of the miserable feelings which I endured from a spring fever when a boy at school, which I know now, from the symptoms I had, to have been a malarious fever, and which might have been cured in two or three days, by a few mild gr. v. doses of quinine, but which I endured with great suffering, under salines and purgatives, for four weeks. It certainly, also, would be a great advantage if we could separate more distinctly all these fevers from the great class caused by infectious animal poisons, typhus, typhoid, etc.

Our treatment of fevers in England ought to be directed more to an attempt to discover other antidotes, and not to rest so idly content with mere treatment of symptoms, which can lead to no discoveries or great improvements. Any old woman can, and does, treat her patients for symptoms, and if the head be hot apply cold, and if the feet be cold put them in hot water, give food, and so on. In India our fevers are so violent and rapid that such treatment could not satisfy any one, and being thus compelled to try powerful remedies with activity, at last, through many vicissitudes, we have reached our harbour. Dr. Todd did attempt the antidotal treatment of typhus with alcohol. Many failures must be expected, but, in the end, no doubt chemistry and experience will give us antidotes for other fevers as they have already done for the great class caused by malaria; and the less we acquiesce in the do-nothing system of allowing fevers to run their course, the sooner we shall arrive at this desired result.

(To be continued.)

(b) The Board say in a note, "This is borne out by a comparison of the results as shown by other returns received at the same time."

(c) Mercury might also be added to these two tests, though its very general curative virtues in other diseases make it less certain than the other two. I would myself, however, strongly suspect a fever to be malarious if salivation at once stopped it, for I know of no other form of fever where it would have the same immediate effect. Mercury also is used as a test for venereal diseases, for most of us, I think, would pronounce with some confidence a doubtful skin eruption, etc., to be syphilitic if mercury cured it. Arsenic has not yet been used as a cure for the acute forms of malarious fever, because we do not want it, having another safer remedy. In some cases of fever of the acute form among natives, for which I have tried arsenic, its curative results were very remarkable. I gave it in xv. ♏ to xx. ♏ doses of Fowler's solution four times a-day till it produced nausea. There is no reason, moreover, why we should not try fevers with all the three tests, and if they all cured the same form of fever our results would be certain.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

SEQUEL TO A CASE OF PARTIAL PARALYSIS FROM SYPHILIS, IN WHICH RELIEF FOLLOWED TREPHINING.

(Under the care of Mr. De MORGAN.)

[Reported by Mr. H. FERGUSSON.]

HENRY McB., aged 29. A report of this case appeared in the Hospital records of April 9, 1864. The trephine had been applied, and a portion of left parietal bone removed in consequence of the coming on of nervous symptoms, giddiness, and loss of power on the same side. Immediate relief followed the operation, and he left the Hospital apparently quite well. He came back shortly after feeling ill and weak, but with no return of the cerebral symptoms. The necrosed bone was now moveable, and was taken away: it was about three inches square. The man speedily regained health, and was again discharged. A week after leaving the Hospital he was seized with pain over the orbit and on the right side of the head; the pain was severe and aggravated at night. There was loss of power and of sensation on the left side, and a feeling of loss of temperature on the same side. He had besides nausea and indisposition to take food, and a general feeling of want of muscular power.

On readmission to the Hospital on June 16, there was found to be partial paralysis of both arms, but the left was much the weaker. They were somewhat contracted, and the hands were semiflexed. The sensation on the left side was impaired. Both legs were weak, the left the more so. The face was unaffected. The pupils were dilated, and very little acted on by light, and there was slight dimness of vision. The pulse 108, small. The seat of the disease on the left side of the head was looking quite healthy, and he had no uneasiness there; but he complained of severe shooting pain over the right side of the head. He was pale and languid, and suffered from nausea and loss of appetite. The bowels were confined; the flow of urine natural.

The symptoms were, though in an aggravated form, much the same as those which had occurred on the former occasion when the trephine was used. It was then thought that though the disease of bone was on the right side the irritation giving rise to the partial paralysis was on the left side, as it was the seat of pain, and as the right arm was chiefly affected, and it is not improbable that the loss of blood and the care after the operation may have had as much to do with the relief which it afforded as the removal of a source of irritation. This view is borne out by the fact of the more severe recurrence of the symptoms after all diseased bone had been taken away. Probably the actual condition was analogous to that of syphilitic inflammation of the dura mater on the right side, with corresponding irritation of the brain. The treatment was directed

to the removal of such a condition. After free purging blisters were applied to the forehead and the iodide of potassium given in 4-grain doses, with ammonia. Immediate relief was afforded to the pain, and he began to recover the use of his limbs, but the rigid condition of the left biceps remained, so that the arm could not be extended beyond a right angle, and this, although it subsided to a great extent, allowing the arm to be brought to an angle of 45°, had not entirely passed off after every other symptom had disappeared. He was discharged on July 26, and sent to the Sea-bathing Infirmary at Seaford.

November 14.—On recent inquiries it was found that the semi-flexion of the left biceps continued for some time after leaving the Hospital for Seaford, but after that gradually disappeared. His health generally is much improved (though sometimes he complains of muscular rheumatism), and he is now following his usual occupation, that of a light porter, with comfort to himself.

GREAT NORTHERN HOSPITAL.

FRACTURE OF THE SKULL IN A CHILD—DISCHARGE OF BLOOD AND SEROUS FLUID FROM THE EAR—DEATH—AUTOPSY.

(Under the care of Mr. GAY.)

A CHILD, aged 5, who had fallen from a horse and upon whom the horse then fell, was admitted for fracture of the skull. With the fracture there was bloody and serous discharge from the ear. The child was brought into the Great Northern Hospital with the symptoms of compression and bleeding freely from the left ear. The blood was venous. A swelling very soon made its appearance over the squamous portion of the temporal bone, which rendered it impossible to make out the extent of the injury to the skull. The bleeding continued until the third day after the accident, when it gave place to a sero-sanguinolent discharge. This continued until the eighth day, when, as the child had recovered consciousness, and the other symptoms had in a great measure passed away, and as, moreover, he complained of pain in the seat of the swelling, Mr. Gay punctured it and freed about 2½ ozs. of thin bloody fluid. From this period the child improved, and the discharge from the ear became very considerably reduced; still it did not cease. On the 25th day the child was moving about the ward when he was suddenly seized with vomiting. (The nurse had noticed occasional convergent strabismus of the left eye for three or four days.) He became unconscious and very feeble. On examining the scalp, a swelling was now observed about an inch behind the ear, over the occipital bone on that side, about the size of a crown piece. The swelling increased, and as with it symptoms of compression became more decided, Mr. Gay on the following (the 26th) day let out the fluid, which turned out to be purely serous and in large quantity. After this the child wasted rapidly, and died on the 30th day.

There was no facial or other palsy with the exception of that which was involved in the strabismus. This became persistent.

There were two extensive fractures with entire separation of some portions of the skull. One of these involved the parietal and squamous bone, and passed through the Glasserian fissure to the foramen lacerum medius. Portions of the squamous and parietal bones were entirely broken from their connections, and lay loose on the dura mater, but were not depressed. Over this portion of bone the first collection of fluid (blood) took place. The second fracture was through the occipital bone, its line extending into the base of the lateral sinus and along the occipito-petrosal suture. The bone as thus situated was thinned by absorption and permeated. Over this the second collection of fluid (serous) took place. Corresponding to these fractures, the pericranium and the dura mater were respectively stripped from the bones. The latter, the dura mater, in contiguity with the occipital fracture, was torn down to the lateral sinus, and here, with the sinus, and adjoining brain tissue, was completely disorganised. On pressing the brain downwards the cerebro-spinal fluid was observed to well up from the posterior subarachnoidean space (?), and as it overflowed so it passed through the aperture in the occipital bone to the large subperuraneal space without. From this, as well as from a similar space over the first fracture, two narrow channels passed, and about an inch above the meatus auditorius externus united to form one, which continued its course to the edge of the meatus, and there communicated with that canal by a rent in the tissues, by which the auricle was attached to its bone margin. There was no fracture of the petrous portion of the temporal bone.

The points of interest, Mr. Gay remarked, are these:—1st. The blood discharged from the ear and that in the first swelling evidently came from the lateral sinus and the fractured and lacerated tissues. 2nd. The cerebro-spinal fluid which formed the second collection came by an unusual track, viz., by a conduit made by the broken-down tissues around, of, and within the lateral sinus, through the occipital bone, and afterwards by the subpericranial channel to the orifice on the pinna, and did not form until the time had arrived (viz., after the expiration of twenty-six days), when the dissolution of the soft tissues about the sinus had gone so far as to give way to the pressure of fluid behind them.

The child seems to have "weathered" the venous hæmorrhage, but sunk under the combined effects of an almost irreparable skull injury and the diseased processes in connection with the discharge of the cerebro-spinal fluid.

GUY'S HOSPITAL.

DEATH FROM DROWNING—FRACTURE OF THE BASE OF THE SKULL.

A WOMAN, 52 years of age, was brought to Guy's Hospital, having been taken out of the water. She had thrown herself off London-bridge, and had struck her head in the fall. She was about three minutes in the water. She was dead on admission. Artificial respiration was tried in vain.

At the autopsy the tongue was found to be protruding from the mouth, and was held firmly by the teeth. The skull was fractured through the base. Beginning at the back part on the left side, the fissure passed longitudinally through the occipital bone, at the side of the foramen magnum, exposing the carotid canal. The brain was bruised, and blood was effused at the base. The cortical part was wasted, and the sub-arachnoid fluid was increased. The bronchi were full of fluid. The lungs were exceedingly congested, the blood exuding into the texture.

Fluid blood flowed from the heart, leaving it quite empty when removed and opened.

Except a bony deposit in the ovary and prolapsus of the uterus and vagina, the rest of the body was healthy.

ST. GEORGE'S HOSPITAL.

INTOXICATION—INJURY TO THE HEAD—DEATH—AUTOPSY—FRACTURE OF THE OCCIPUT.

(Under the care of Mr. HENRY LEE.)

ANN D., aged 58, widow, admitted on November 12 into St. George's Hospital.

History.—The only history of the case that could be obtained was from the policeman who brought her in. He stated that she had, whilst drunk, fallen down an area a distance of seven feet. She was unconscious when picked up.

On Admission.—Lies apparently unconscious, but can be roused by pinching, and she then resists any attempt to move her. The pupils are small and fixed. Pulse 72, small. Skin cold. There is a large lump of extravasated blood over the occiput. No fracture can be detected underneath, but she complains when this part is touched.

November 13.—Has been constantly sick and very restless all night, vomiting large quantities of fluids smelling of liquor. She can be roused, but appears stupid. Pulse 84. Tongue clean. Right pupil larger than left; both act sluggishly. Enema terebinthinæ st.; emplast. lyttæ nuchæ.

14th.—She cannot be made to answer, but protrudes her tongue when urged to do so. Has been very restless all night. Skin hot. Tongue furred. Pulse 104.

15th.—Remains much in the same semi-stupid condition. Bowels not acted since enema. Tongue furred. Skin hot. Hst. sennæ st.

16th.—She is certainly more conscious; answers questions and complains of pain in the head. Tongue covered with dark fur. Pulse 64. Bowels acted well after draught.

17th.—About two this afternoon had a slight fit of convulsions, the spasms being principally confined to the muscles of expression. Tongue furred. Skin hot. Pulse quick. Calom., gr. iv. st.; hst. sennæ; calomel, gr. ij., bis die.

18th (3 p.m.).—During the night has had four fits; they are, however, slight. She has had none since ten this morning. Is quite unconscious; pulse 84; skin hot; there is no paralysis.

19th.—About two this morning she suddenly became worse, had a violent fit of convulsions, and, according to the nurse, "has hardly been out of them since." At present (1 p.m.) the fits follow each other in rapid succession, scarcely a minute elapsing between the termination of one and the commencement of the next. There is spasm of all the muscles of the body, but more especially the right side, the trunk and head being drawn to this side. She is quite unconscious; face suffused; eyes injected; skin hot; breathing snoring and very rapid; pulse 120, small; pupils small, act sluggishly. Enema terebinthinæ, st.; mit. sanguis, ad ʒviij. Vespere (five hours after venesection): The fits are not nearly so strong; they recur about every ten minutes, and are principally confined to slight spasms of the muscles of the face. The face is not so flushed, nor the eyes so bright and injected; the skin is cooler. There appears to be loss of power in the right upper extremity. Pulse 112, weaker; pupils more contracted, reduced to pin's points in size, still act slightly.

20th.—The fits are again as strong as ever; they continued slight throughout the night, and till within the last half-hour (11 a.m.), and recur one after another in rapid succession. The whole body is now convulsed and drawn over to the right side; the face is drawn to the right. Pulse 124; skin hot and perspiring; pupils not so contracted; mucous râles over both lungs.

The clot was very small, of average firmness, neither buffed nor cupped.

21st.—The fits continued up to 10 p.m. last evening; they then ceased, and she sank and died at 12 p.m.

Autopsy, Thirteen and Three-quarter Hours after Death.—There is a mark of bleeding on left arm, and vesication behind the neck. Many brown spots on thighs. Cranium: Brain generally vascular. The under surface of left lobe of cerebellum excavated; no hæmorrhage into this portion. The anterior extremity of front lobe of cerebrum, on left side, broken up by clot to the depth of a quarter of an inch; a lump of coagulum lying on it. The lower and anterior part of left middle lobe in a similar state. At the situation of these injuries there was a small amount of blood in subarachnoidean spaces, as well as in the arachnoid space. The skull was very vascular. There was a fracture passing vertically from the right side of foramen magnum, through the middle of the right cerebellar fossa to about an inch and a-half from the groove for the lateral sinus. The dura mater was ruptured in this situation for about an inch in extent. Thorax: Left ventricle of heart contracted; right partially so; valves healthy. Old adhesions in right pleura. Lungs healthy, with the exception of a single hard tubercle. Abdomen: Kidneys contained a good deal of fat in their pelves, and a few cysts on the cortical substance. The supra-renal capsules were rather irregular; on their surface were several hard tubercular-looking masses. Other organs healthy.

For the above case we are indebted to Mr. Thos. T. Pick, Surgical Registrar.

MISCELLANEOUS CLINICAL CASES MAINLY (BUT NOT ENTIRELY) FROM AMONG HOSPITAL OUT-PATIENTS.

(Under the care of Dr. JOHN W. OGLE.)

Case 1.—*Spasmodic Dysphagia (temporary).*

Robert W., aged 66, appeared at St. George's Hospital, having been ill more or less for two years with occasional tic-douloureux and very frequent attacks of difficulty in swallowing, often lasting for twenty-four hours at a time. The tongue was furred; the pulse very feeble, but regular. The difficulty in swallowing was confined to solid food. When he first came to the Hospital the pain at the right side of the face was intense, but there was no head-ache. The dysphagia was very painful and troublesome.

Ordered, extract belladonnæ, gr. $\frac{2}{3}$, with the extract gentian, gr. ii. every night, along with the infusi. valerian, ʒiss.; ferri. et quinæ citratis, gr. v., and sp. æth. chloric, ɱxv. twice a-day; also a senna draught at once.

At the end of a week he was greatly relieved both as regards pain and power of swallowing, and after continuing his medicine a second week he was discharged as being comparatively well, only complaining occasionally of very slight inconvenience in swallowing.

Case 2.—*Spasmodic Stricture of the Œsophagus in a Case of Phthisis.*

Sarah C., aged 34, had been ill with coughing and spitting for one year, but had been an out-patient five years previously with hæmoptysis and symptoms of early phthisis. It was also thought that she was pregnant. She applied to the Hospital owing to hoarseness and difficulty in swallowing solid food, which had suddenly come on three days previously.

Ordered, vini ipecacuanhæ, ɱxii.; oxymel scillæ, ɱxxv.; sp. ætheris nitric, ɱxxv.; aquæ, ʒiss., ter die.

A bougie was also passed down the œsophagus, and obstruction at a point just below the thyroïd cartilage was found. By degrees she recovered so as to swallow softened solid food.

Ordered, træ. ferri sesquichlorid, ɱxv.; tinctæ. quinæ. comp., ʒj., ex aquâ bis in die.

At the end of two weeks a small probang was effectually passed at the obstructed part. Valerian was added to the medicine. At the end of another week solid food was so easily swallowed that the patient took leave as having recovered.

Contrasted with the two former cases is the following one of stricture of the œsophagus arising from inflammation of that tube.

Case 3.—*Swallowing of Caustic Potash—Inflammation of the Gullet—Stricture—Recovery.*

Louisa M., aged 33, came under my care as an out-patient in July, 1863, under the following circumstances. She had been subject to rheumatic pains, and been told that potash was good for the like. She purchased three-pennyworth, and mixed it in half a pint of water. Of this solution she swallowed two large table spoonfuls, which made her sick, and she after a time vomited material containing blood. The vomiting continued for twenty-eight hours. This was about two weeks before she became an out-patient, and during the whole of that time she had suffered from dysphagia, not being able to swallow solids at all, and only fluids with much trouble and painfulness. She was also suffering much from pain at the right side of the chest and the right side of the sternum, having moreover much "burning" in the throat on drawing the breath. The saliva was passed in large quantities; she described herself as being "very hungry, but unable to eat." I had a bougie passed gently down the œsophagus, and a decided obstruction was felt a few inches down the tube. I prescribed a grain of opium night and morning, and after a short time admitted her as an in-patient. She was sustained by strong nutritious fluids and took opium in small doses, given in the infusion of cloves every six hours for about six weeks, at one time one minim of creosote being added, from which relief was obtained to sickness. Wine and brandy were given freely, and on September 20 I determined to try the effects of mechanically enlarging the stricture, if possible. A very small bougie, of the size of a large gum catheter, was passed with a good deal of difficulty. This gave a little pain only, and after this was done for a day or two, the process becoming easier almost daily, a larger sized bougie was used. She was at this time losing strength and flesh, and I then prescribed injections by the bowels containing strong beef-tea and brandy. They were repeated pretty frequently with happy effects, and under the continued daily use of the bougies she became able to swallow softened solid food. About September 20th she was able to swallow solid food pretty comfortably, and wished to be allowed to go home. This she did, and it seems she had no return of difficulty in swallowing, but remained well, as she made her appearance and showed herself to the nurse of her ward during the summer of the present year, some nine or ten months after her dismissal.

Case 4.—*Paralysis of the Uvula and Soft Palate after Ulceration of the Tonsils.*

Henry M., aged 26, was admitted under the Surgeon's care owing to his "talking through the nose," which he had done for three weeks, and which was thought to be due to some disease of the nares, a large quantity of all fluids which he drank coming down both nostrils. It was ascertained that no mechanical impediment or obstruction existed, and he was transferred to the Physician's side. I ascertained that seven weeks previously he had had a severe attack of ulcerated sore-throat, and had been very weak ever since. He complained of numbness of the tips of the fingers of both hands and of the ends of the toes, and he had had some tightness and shortness of breath, but had never spat blood. *It could be seen that on deep inspiration the uvula and palate, which were rather vascular, remained perfectly unmoved.* There was no

want of power in any of the muscles of the face or limbs, and the pupils were natural and equal, acting well.

Ordered the acetate of strychnia, in doses of $\frac{1}{20}$th of a grain, three times a day, afterwards increased to $\frac{1}{17}$th of a grain.

This treatment was continued for six weeks, and he was then discharged as quite well, all his symptoms having ceased.

Case 5.—Contraction, Swelling, and Stiffness of the Fingers following Eczema of the parts.

Elizabeth M., aged 52, had been the subject of acute eczema of the arms and hands, and ever since the attack had had much swelling and great stiffness of all the phalangeal joints of the fingers of both hands, the little finger of the left hand being quite contracted. She was unable to "make a fist" with either hand.

She remained a month in attendance, taking at first the syrup of iodide of iron with quinine, and using the opium liniment night and morning to the affected parts. Under this treatment she became able to fold the arms and hands with much greater comfort and ease, but for some reason then discontinued attendance.

Case 6.—Vomiting and Purging relieved by the Evacuation of Balls of Sulphur by the Bowels.

Thomas J., aged 49, applied at the Hospital complaining much of abdominal tenderness, having for several days had much vomiting and purging up to four days previously, when he had become somewhat relieved. He was greatly troubled with hæmorrhoïds, for which he had long taken much sulphur daily (about 1 oz. per week).

Ordered the effervescing ammoniated saline with four drops of hydrocyanic acid every four hours, and a dose of calomel and opium at night. This was followed by castor oil and ten drops of laudanum.

At the end of a week he re-appeared, stating that he had passed about a dozen lumps from the bowels so hardened that they had to be broken with a stick. These were each of about the size of a walnut, and on being broken and examined, proved to be composed of nothing but sulphur. Since their evacuation all pain in the abdomen and sickness had disappeared, and he pronounced himself quite well.

Case 7.—Symptoms of Bronchitis—Expulsion of a Piece of Money from the Larynx.

Archibald M., aged 43, applied for an attack of cough and bronchial irritation, attended by sputa containing blood. He was ordered squills with infusion of roses, and at the end of ten days he appeared again, stating that he had coughed up a sixpenny piece, since which time all cough and spitting had almost ceased. He never remembered to have put the sixpence into his mouth. As he was somewhat debilitated, he continued as an out-patient, taking quinine and steel for two or three weeks, when he was discharged as well.

This case reminds me of the case of an omnibus conductor who came into St. George's Hospital complaining of what appeared to be an attack of bronchitis, and who was at once relieved by coughing up a fourpenny piece, now preserved in our museum.

Case 8.—Pustular Eruption on the Surface of the Body—Concealed Abscess among the Muscles of the Leg—Congestion of Lung—Inflamed Pelvis of Kidney.

Wm. F., aged 32, an omnibus conductor, a tall, well-made, sober, and healthy-looking man, was brought into St. George's Hospital August 14, 1863. It was stated that he had been in good health until one week previously, when he had felt pains in the loins, much increased on stooping, as also in both knees, especially in the left one. There was no tenderness on pressure, nor any redness of any of the joints. No petechial spots could be found on any part of the skin, and there was no diarrhœa and apparently no intestinal irritation. The countenance was very anxious, the tongue very tremulous and slightly furred, but moist; the pulse was 128 per minute; the skin extremely dry and intensely hot. I ordered him strong beef-tea and an effervescing citrate of ammonia draught every four hours, containing fifteen grains of nitrate of potash, and ten grains of compound ipecachuan powder at bedtime.

15th.—The night had been restless, the urine was scanty and high coloured, the skin still very hot and dry, and the pulse exceedingly rapid and weaker. The bowels had not been opened. Some rather fine crepitation was detected at the lower part of both lungs, and there was a little cough with expectoration of rather tough phlegm. The medicine was continued, with an addition of twenty minims of antimony wine to each dose, and six drachms of castor oil were given.

On the 16th the bowels had been well opened. Several small red spots, which in places had formed pustules, were found on different parts of the trunk. He was much feebler and lower; the expression was more anxious; the pulse more rapid and thready; the tongue drier, and of rather a brown colour; the skin of the lips and cheeks beginning to be rather livid. No pain was complained of in any part. Twelve ounces of port wine were ordered in the twenty-four hours. No change for the better took place in the symptoms.

17th.—The same, but lower. Wine and medicine persisted with.

18th.—Had an increasedly anxious and even startled look. The skin was covered with cold perspiration. The tongue was very dark, almost black, and rough. There was slight wandering of the mind. Unconsciousness came on and preceded death, which occurred on the 18th.

On *post-mortem examination*, the body was found to be in good condition. Several (about a dozen) pustules were observed on the surface. Slight pleural adhesions were found on both sides of the chest, and the lungs were congested at their lower parts. The heart was healthy. The kidneys were also natural, except that in the pelvis of the right one was a collection of pus. The spleen was much softened and large, weighing 16½ ounces. The brain was natural as to firmness, but the lateral ventricles contained each about one ounce of reddish coloured fluid, and the blood-vessels of the cerebral membranes were highly congested. On examining the muscles of the left leg, an abscess containing about 4 oz. of pus was found amongst the flexor muscles.

This case may well be compared with the details of the following case, which occurred in our Hospital in 1850 (96), the particulars of which are as follows:—

Case 9.—Pustular Eruption over the Surface of the Body—Malignant Fever—Abscess among the Muscles of the Leg.

Wm. L., aged 24, was admitted into St. George's Hospital May 31, 1850, but without any satisfactory history. He had baen seized two weeks previously with rigors, followed, some days afterwards, by pain in the shin of the left leg, where was a swelling and redness, with some degree of fluctuation; on admission, his whole body was covered with reddish and livid spots surmounted by small pustules, which, though one or two were rather flat, had neither the depressed centre nor the regular form of small-pox. The tongue wae coated and dry; the pulse 132, and small. His movements were tremulous and his manner confused, and the following day he had become delirious, and unable to give any account of himself. Stimulants were given, but he sank and died June 2.

On *post-mortem examination*, the pustules were found over both the trunk and the limbs. Near the middle of the right leg, on the outer side of the crest of the tibia, there was a small unhealthy abscess, situated between the muscles and the deep fascia; and a similar collection of pus was found between the integument and the internal annular ligament of the left ankle. The left pleural cavity was nearly filled with turbid serum, and the surface of the membrane coated by reticular fibrine. The lungs were congested. The liver was pale; the spleen large and very softened; the kidneys congested. Other organs presented nothing worthy of note. The blood throughout the body was for the most part fluid.

Case 10.—Phthisis Pulmonalis.—Expectoration of Numerous Masses of Cretaceous Matter.

Mary T., aged 38, a stout married woman, having one child of the age of 13 years, had for several months been subject to cough, and for six months had passed a quantity of cretaceous matter at times which she said "would come up quite dry," having the feeling of coming from the throat. Altogether about twenty such had been passed. She had *not* lost flesh nor ever spat any blood, but used to sweat very much and readily. The pulse was weak and quick; the tongue furred, indented, and red at its edges and extremities; the voice was hoarse, and the face was somewhat puffy. The respiratory murmur at the upper part of the left lung was defective, and beneath the left clavicle a slight degree of "small crackling" existed. As the patient was rather unusually stout for a young woman, and certainly for a phthisical one, I had her weighed, and found that her weight was about 14 stone 10 lbs.

She continued under treatment for a year, at first taking ipecacuanha with small doses of antimony, but shortly afterwards quinine, phosphate of iron, with squills and Dover's

powder and cod-liver oil. She continued for about two months to pass irregular, rounded small mass of calcareous matter, some very friable, and giving way under very slight pressure; others, very hard indeed, the largest being of about the size of a pea. She gradually declined in weight, but not in strength proportionally. She was weighed every month, and gradually decreased in weight during the year from 14 stone 10 lbs. to 13 stone 10 lbs. At the end of that time the crackling in the lung had increased and dulness of the lungs had become more manifest. She had not for eight months passed any of the calcareous substance. During this time there had been no external swelling about the throat, but there was often some degree of tenderness on pressing the larynx.

With this case may be mentioned another of a man, aged 29, a phthisical out-patient, who had lost brothers and sisters by consumption, and who was in the habit of expectorating chalky and gritty matters along with other sputa.

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Medical Times and Gazette.

SATURDAY, DECEMBER 3.

THE NEW INDIAN WARRANT.

Our pen has of late years been so little accustomed to trace lines of anything but condemnation with regard to the course pursued by Her Majesty's Principal Secretary of State for India, Sir Charles Wood, towards the Medical officers of the Indian Army, that we confess to a little feeling of awkwardness in adopting another and opposite line of criticism; but the same principles of truth and justice which have hitherto obliged us to condemn the course pursued, induce us now to offer our meed of commendation. A new and amended scheme for the organisation of the Indian Medical Service has been issued, which at *first sight* appears calculated to satisfy fully the long-delayed and crying grievances of the Medical officers of the Indian Service. We purposely italicised the words *at first sight*, because, when this scheme is laid in its totality before those most interested in its provisions, we may have certain points brought to our notice which may require us to modify that approbation which we at present feel inclined to award to it.

The new scheme bears date November 7, 1864, and, having been probably despatched by the last overland mail, is now far on its way to India, where its advent is awaited by many an anxious heart. The following is a summary of the principal features of the measure:—

1. There is to be no amalgamation of the British and Indian Medical Services.

2. There is to be an entirely separate Medical Service for India.

3. All European (military) charges are to be transferred, at as early a date as practicable, to the Medical officers of the British Army.

4. Consequent on this arrangement and other changes there is to be a reduction of the Indian Medical Establishment in the three Presidencies.

5. In making calculations for the required strength of the local Indian services, the authorities in India are requested to take into account the situations which may properly be filled by uncovenanted members of the Medical Profession.

6. The promotion of Assistant-Surgeons who may hereafter enter the Indian Service is to be regulated by period of service, and not by seniority as heretofore. Assistant-Surgeons are to attain the rank and pay of Surgeon after twelve years' service.

7. This rule is to be extended to all present Assistant-Surgeons from the date of the receipt of the scheme in India.

8. Staff salaries are recognised; but in all cases are to be consolidated.

9. All appointments are to be alike tenable by Surgeons-Major, Surgeons, and Assistant-Surgeons.

10. The rate of pay is established as follows:—

Inspector-General . . .	2500 rupees, or	£250 month.
Deputy-Inspector-General .	1800 ,,	£180 ,,
Surgeon-Major	1000 ,,	£100 ,,
Surgeon	800 ,,	£80 ,,
Assistant-Surgeon after 5 years	600 ,,	£60 ,,
,, ,, under 5 years	450 ,,	£45 ,,

These salaries for Surgeons-Major, Surgeons, and Assistant-Surgeons are when these officers are in charge of native corps. An extra 60 rs. per month is allowed in cavalry regiments. No mention is made of batta and half-batta.

11. Unemployed pay in India is placed on a liberal footing, varying from 888 rs. for Surgeons-Major of 25 years' standing to 286 rs. for Assistant-Surgeons under 5 years' service.

12. The rate of pensions is raised to the following:—

After 30 years' service	. £550	per annum.
,, 27 ,,	. . 456	,,
,, 24 ,,	. . 365	,,
,, 21 ,,	. . 292	,,
,, 17 ,,	. . 220	,,

Extra pensions are to be granted to Inspectors-General and Deputy Inspectors-General after five years' tenure of office.

13. *All* leave from date of commission is to count for the rank of Surgeon-Major.

14. Royal commissions are to be conferred in place of the present ones, but no Medical officers will be required to serve out of India without their own consent.

15. Medical officers entering the service hereafter are not to be required to subscribe to the Medical or military fund.

16. The Medical funds are to be transferred to Government; all pension annuities are being guaranteed by Government.

17. Widows and children of Medical officers are to be entitled to the same pensions as those in the Queen's service.

These provisions appear to be just and liberal, well calculated to meet the chief, if not the whole, of the requirements of the case, and, if carried out in their integrity without quibbling on the part of the authorities at the India Office, and without interference on the part of the Horse Guards, will confer substantial advantages on a service whose just claims we were amongst the first fully to recognise and warmly to advocate. It may seem ungenerous not to receive with unalloyed thankfulness "the goods the gods provide," but we cannot conceal from ourselves that this long-delayed measure of justice has, even at this late date, been conceded to, if not extorted by, a pressure from without, and without desiring to arrogate to ourselves more credit than is our due, we feel proud to think that our pages have, in some measure, been made the means of bringing about the present favourable state of things. We hope to return to the consideration of some of the details in a future issue.

THE CONVICTION OF HENERY AND ANDERSON.

It is with no ordinary satisfaction that we record the fact that two of the class of villains we have of late been denouncing have met with their deserts. The trial of Henery (or Wray) and Anderson has resulted in a conviction on the charge of conspiracy, and the prisoners are just entering upon a course of two years' imprisonment with hard labour. It is not diffi-

cult to infer from the remarks of Mr. Baron Bramwell, that had the graver charge of extortion not failed, he would have felt satisfaction in inflicting a more severe sentence. We may observe that the failure of the former count in the indictment was merely a consequence of the antiquated requirement that all offences shall be tried in the county in which they are committed. This rule, which is now subject to no less than twenty-six exceptions in the case of particular crimes, is, of course, a relic of the times of remote antiquity, when the jurors were also the witnesses, and therefore were necessarily taken from the neighbourhood of the *locus rei gestæ*. We need hardly say that the sooner our criminal law ceases to be deformed by such a useless complication the better.

It is satisfactory to observe the tone of the comments of the press on this and other recent cases. There is no doubt that there now exists a general and growing sense of the absolute necessity of an effort to cope with what has become an intolerable evil; and it is not improbable that a measure will next session be introduced into Parliament directed against the nuisance. There are, no doubt, difficulties in the way of legislative interference, and the details will require careful consideration; but it is certain that if the existing laws are insufficient, a new enactment is absolutely necessary. As we believe the enormity of the evil is not generally known, we propose from time to time to publish such facts as come under our notice, showing its extent, premising that not only are men of all ages made the victims of a most merciless persecution, but women are also subjected to extortion under threats of accusations which the most virtuous might not be able to disprove,—but the mere suggestion of which, to friends or relatives, might give rise to groundless suspicion, and cause unutterable misery. To escape the threatened exposure the victim too often resigns himself to his persecutors, whose extortion is continued for years, and becomes the more relentless as the victim becomes more submissive, the pressure being only graduated according to the means which the subject is supposed to possess.

Again, youths are made to imbibe the most unnecessary and often untrue notions of the anatomy and physiology of the generative organs, their minds, if not over strong, becoming poisoned and debased by the subject that is thus forced upon them. Horrors of the most terrible and lasting kind are suggested to their imagination, and it cannot be wondered at if their attention soon becomes intensely concentrated upon the possibility of their being the subjects of some of the affections they see described. Alarmed at the results which they think the fancied ailment may entail, and fearful of the imaginary evil being known, they rush to some of these persons always ready with advice and medicine, and soon find themselves enclosed in the meshes of a net from which there is no exit. We have lately seen a letter sent to a working man of about 25 years of age, who was in sound health, and would have been gladly taken by any insurance office in London at the ordinary rate, but who, after having read some of the works on generation so largely advertised, considered it desirable to consult the author of one of them by letter. We print his answer verbatim, omitting merely the name and address:—

"Dr. ———, F.A.S, M.R.A.S., (a)
H.G. St. Mary's, King's College,
The Lock, and St. Georges's Hospitals,
London, (b),
Member of the Academy of Sciences,
Fe'low of the Imperial Institute of France,
Ex[illegible]rne Venereal Hospital, etc., etc. (c)

"London, ———, 186—.

"Dear Sir,—Folly and imprudence ever leave their sting. Your case is no exception. You suffer from the infringement of Nature's laws, having contracted in ignorance and continued in infatuation a habit physiologically identified with misery, pain, and death.

"The principal seat of disease is in the seminal vessels, which have become greatly relaxed in their tone and power of retention. There also appears to be a slight disease of the kidneys. I am of opinion that the semen constantly passes away in the urine. The result of this drain on the system must be obvious when I tell you that one drop of semen is equal to forty drops of blood. This vital waste is not only capable of causing all the symptoms you detail, but such is the sympathy existing between the generative function and the brain, that should this drain of one of the most vital of all your secretions be not immediately arrested, your whole system must suffer very serious derangement, whilst the organs of generation themselves will become vitiated, and relapse into a state of utter impotency, which must necessarily destroy all power for sexual intercourse; entire loss of erectile power, withering and wasting of the penis, affection of the head, and insanity, are amongst the direct results of such a state; and although you do not complain of such, still you have reasons to fear their appearance. Severe as is the injury already inflicted, it is most fortunate that you have applied for aid before that injury had progressed from stage to stage until cure would be impossible. I am glad to acquaint you that I can effect a perfect and permanent cure, and must urge on you the necessity of facilitating the same by attending to all my instructions, which are simple and easy of application. Your cure must be treated locally and constitutionally, and I recommend a 'first-class self-adjusting curative,' along with the other restoratives and adjuncts, which shall be forwarded, with full directions for use, on receipt of remittance as per annexed statement.

"1st class curative . . .	£2	2s.
"Double case 'brain powders' .	2	2
" " 'semen do. .	2	2
"Astringent lotion . . .	1	1
"Restorative mixture . . .	3	3
	"£10	10

"I am, Dear Sir, yours faithfully,
"————, M.D., etc."

(a) What is F.A.S.? Fellows of the Antiquarian Society use F.S.A., or Asiatic Society? M.R.A.S.?

(b) H.G. means Honorary Governor. We conclude these Hospitals receive annual subscriptions from the writer of this letter.

(c) We are not aware of the existence of institutions giving these precise titles.

THE WEEK.

CONSTANT WATER SUPPLY.

In another column we give a report of the debate at the last meeting of the Association of Medical Officers of Health on the water supply of London. There is no doubt but that in many poorer districts the supply of water is very scanty. In theory, the proper thing would be to abolish all cisterns and other receptables whatever in all houses, and to have the supply-pipes always charged; and no persons are more desirous of this than the water companies themselves. But there are two objections in practice which appear insuperable at present. One is the wastefulness of the occupiers of houses, and not merely of the poorer, though they are the greatest culprits. At Clifton a constant supply was relinquished because the water company found the flow of water greatest just when, according to their calculations, it should have been smallest—viz., at night, for the inhabitants used fraudulently to set open the taps, and let them run all night to flush out their drains. A second obstacle is the existing cisterns and water apparatus. If a "constant" is to be substituted for the present "intermitting" supply, every house must have its cisterns, waste pipes, etc., abolished, and replaced by new fittings, which shall not only permit the flow, but prevent waste of water. The present ball-cocks, cisterns, and waste-pipes are so leaky that they would ruin any company that should rely on them for avoiding waste of water. The paper by Dr. Barnes which followed points to a power which local authorities and sanitary officers ought to possess in order to remove the bodies of the dead from crowded habitations in cases of infectious disease. The remarks of Dr. Letheby on the use of that cheapest and simplest of disinfectants, charcoal, deserve attention.

LEAD POISONING.

Our last week's number contained a case of the death from lead poisoning of a poor woman employed in th "White Lead Works" of Messrs. W. W. and M. Johnson and Sons. These gentlemen have addressed a letter to the *Times*, stating that their workpeople are only employed, as a rule, ten and a-half hours daily; that "overtime, however little, is avoided as much as possible, and, when necessary, rarely extends beyond half-past seven in the evening, which hour and a-half is paid for as a quarter of a day;" and that the following precautions are taken by them to obviate the dangers attending on the occupation:—

"We are fully alive to the prejudicial effects of the lead on the system, and we endeavour to alleviate its effects by every means in our power—by mechanical contrivances, strict attention to cleanliness, and also suitable medicines, preventive and curative, administered by a properly-qualified Medical Practitioner. We have, however, great difficulty in inducing the workpeople to employ the means provided for their protection.

"In conclusion, we may add that our works have several times been inspected by the Medical officer for the district, who has always signified his approval of our arrangements, and we have at various times adopted several of his suggestions.

"The subject is constantly before us, and we are constantly devising fresh plans for counteracting the deleterious effects of the various operations."

Supposing that these statements are correct, and are carried out as fully and ably as possible, we do not see what more could be done. Everybody who knows anything on the subject is aware how difficult it is to make workpeople submit to the most necessary safeguards against the perils of dangerous occupations.

FROM ABROAD: TREATMENT OF PERTUSSIS BY GAS-FUMES—TENT HOSPITALS AT BERLIN — DISCUSSION ON HOSPITAL HYGIENE (CONTINUED).

We have already (*Med. Times and Gaz.*, April 2 and 23,) noticed the practice which has arisen in France of treating children suffering from pertussis by exposure to the fumes emanating from the purification of gas. The early accounts of the success of the plan have not been fully confirmed by subsequent observers, but M. Commenge has just laid a second paper before the Academy of Medicine in which he brings forward much additional evidence in favour of this mode of treatment. Between July 1 and October 15, 1864, 81 children have tried the means with sufficient perseverance to allow of deductions being safely drawn. Of these 10 derived no benefit from it, 24 only experienced some amelioration, and 47 were cured. Amelioration was observed sometimes even after the first inhalation, and at others only after the 15th, the average period being the 5th; and the cure has been effected in one case after the 3rd, and in two cases only after the 30th inhalation—the average number having been 14. Among the 81 children, in 56 the pertussis was in its first stage, and of these 19 were ameliorated and 31 cured. In 25 cases it had reached its second stage, and 5 ameliorations and 16 cures were obtained. In 65 cases the symptoms were very acute, and yet there were 23 ameliorations and 38 cures. In 16 cases in which the disease was mild, the ameliorations were 2 and the cures 9. To 59 of the children various remedies had already been administered without success, while in 22 no treatment had been previously employed.

Dr. E. Rose has recently given an account of the experiment that has been made at the Bethanian Hospital, Berlin, of treating certain Surgical cases in tents freely exposed to the air erected in the garden of the establishment. His present report only relates to forty-eight patients so treated between May 25 and September 22, 1863. Its conclusions are highly favourable; for, notwithstanding that there was injudicious overcrowding, no case of pyæmia, gangrene, or tetanus occurred, while there were only a few cases of slight erysipelas. It is not, in fact, the overcrowding of patients and the generation of purulent miasm which give rise to the production of epidemics of pyæmia, but the stagnation of the air and consequent purulent decomposition that ensues. Not only did this evacuation of the bad Surgical cases into the tents act beneficially upon themselves, but also upon the condition of the other patients in the Hospital—pyæmia, which in former years had been very prevalent, then ceasing to appear in the wards. What sea-air is to the inhabitants of towns, the tent is to the inmates of Hospital wards. Patients with suppurative discharges, whose lost appetites no tonic would revive while in the wards, in the tents became so inordinately hungry that their dietary had speedily to be augmented. The general conclusion of the author is that, in spite of some unfavourable weather, and the not very good climate of Berlin, no ill effects resulted, while the influence upon the general health of the patients was most beneficial.

MM. Broca and Gosselin having been placed on a Committee which gave its approbation to the projected rebuilding of the Hôtel-Dieu, have become the defenders of the project in the Society of Surgery. The latter able Surgeon especially stated that he could find nothing to blame in it, except the mode of distributing the buildings. He approved of the large number of beds intended to be provided, and strongly objected to removing the Hospitals out of Paris, as highly inconvenient to the patients, their friends, the Medical attendants, and the students. Moreover, he would not admit that the superiority of rural Hespitals, although so generally assumed, had been rigorously demonstrated. It is true that country air is purer and more wholesome than that of towns; but it is only an assumption that persons who have always inhabited Paris would be cured in greater numbers or with more rapidity by being transferred to rural Hospitals. It is true that the great operations performed upon the peasantry in small country Hospitals are attended with wonderful success; but we have no proof whatever that a like success would be accomplished were Parisians the subjects. At all events, no one will venture to say that epidemic or endemic diseases, as typhoid fever, for example, are attended with less fatality in the small country Hospitals than in those of Paris. After all, however, notwithstanding the questionable soundness of some of the above opinions, M. Gosselin is not so much at variance with his colleagues as might at first sight be supposed, for he believes that the great thing to secure in a Hospital is effectual ventilation. Since he has adopted at La Pitié the "English system" of natural and permanent ventilation, his success with his operations has been surprising, while Hospital gangrene, pyæmia, and refusal to heal on the part of wounds are unknown in his wards. It is because he believes that in the new Hôtel-Dieu the patients will be distributed in wards containing only a small number of beds, and that each individual will be supplied with from 60 to 65 cubic metres of air, that he gives his support to the plans which have been proposed.

Baron Larrey, in an able discourse, summed up the results of the discussion, and confirmed the importance of many of the conclusions arrived at by the weight of his great experience. The evils of overcrowding he illustrated by the experience of the Crimean war, evils which were entirely obviated during the Italian war through proper sanitary arrangements being put into force. His inspection of the Hospitals through entire France has convinced him of the superiority of those which are located beyond the walls of towns over those placed in their midst, and the relative superiority of small Hospitals has also been fully proved by means of the small military Hospitals which are supplementary to Val-de-Grâce.

Death of Dr. Park.—The death is announced at Jersey of Dr. Park, Surgeon of the 16th Lancers. The deceased left Colchester on Saturday week on a leave of absence for two months, and proceeded to Jersey, but he had only arrived there a few hours when he died. Dr. Park had an attack of paralysis some time since.

REPORT ON CHEAP WINE.—NO. V.

(By our Special Empirical Commissioner.)

(Continued from page 576.)

Bordeaux Wine.

Let us leave the adulterators and their dirty work for the present, and come to the main object of my commission, which was to examine and report how far the public are benefited by the reduction of the wine duties. Can they get cheap wine that is fit to drink? and if so, do they avail themselves of it and use it, and do Physicians prescribe it to the extent they might do with advantage? This unpretending question I proposed to answer in a practical way by procuring samples, such as came to hand indiscriminately, of any wines whose price did not exceed half-a-crown a bottle, and by drinking them at my own table, so that I might be able to say not only how they tasted, but observe if they produced any disagreeable effects afterwards. My verdict is, that we can get good wine cheap, but that neither the public nor the Profession use it as it deserves.

Of cheap wines, the first that deserve the attention of the consumer are those of Bordeaux. They are, as a class, pure, light, and exhilarating; they are of moderate alcoholic strength, averaging under 20° per cent; they are perfectly fermented, and free from sugar and other materials likely to undergo imperfect digestion and provoke gout or headache; and they are admirably well adapted for children, for literary persons, and for all whose occupations are chiefly carried on indoors, and which tax the brain more than the muscles.

As for persons whose occupations are carried on in the open air, and require much exertion of muscles and little of brains, there is good beer to be had in abundance, and no better investment of a penny can be conceived than half a pint or a pint of ordinary London porter—call it "cabman's mixture" if you please. But as for the numbers of persons—very poor ones, too—who lead indoor lives, such as teachers, milliners, dressmakers, and needlewomen of all sorts, if they are young, they can drink beer perhaps, and make up by "antibilious pills" for want of exercise and fresh vegetables. But once past thirty, beer, as a rule, can no longer be taken with impunity by a great many of them; gout and rheumatism take the place of "bilious disorders;" and their choice is between wine and gin. Wine of the best and purest sorts heretofore was virtually inaccessible; now at least it *can* be got by any persons who have the good sense to prefer it to gin, and economy and forethought enough to feel that a saving of a few pence weekly in an habitual article of food is a bad compensation for illness now or hereafter.

So, also, I would that my voice could reach that splendid creature, the true British tradesman. I don't mean the personage who lives out of town and drives into his place of business in a brougham, but the genuine, old-fashioned, portly fellow, who stands behind the counter all day, stays indoors all the week, drinks beer at his one o'clock dinner, and gin or brandy-and-water at night; makes up his books on Sunday mornings, takes an hour or so of fresh air between one and three, and then devotes Sunday afternoon and evening to a good dinner, with a bottle of port, and has a little something warm and comfortable at night. When I look at the enlarging forms of these honest fellows, and think of their food as compared with their work; and further, when I think of the frightful mortality amongst them in cold winters from "bronchitis"—(say, rather, from a blood too thick and a heart too flabby),—I cannot help thinking that if the slip-shod maid-servant were to fetch a bottle of *vin ordinaire* from the cellar, instead of a pot of beer from the public-house, for the family noonday repast, and if it were substituted for the ginnums-and-water at night, our too solid tradesman would have a more useful liver and lights under his ample waistcoat, and would not be nearly so liable to

"Fall as the leaves do, and die in October."

But there is no denying the fact that Bordeaux wines have some imperfections as a class. They are often *thinnish*: it is their virtue of purity and lightness carried to an injurious degree of attenuation; they taste *acid* because their acidity is not hidden by sugar, for they are not a whit more acid than port, neither do they turn sour. Moreover, in bad seasons they are unmistakably poorish. The Greek and Hungarian wines, products of a sunnier clime, really promise, with anything like fair trial and careful manufacture, to rival, if not supplant, the ordinary Bordeaux growths for popular use. Still for all this these are old-tried and serviceable friends, and it will be a good day for the morals, health, and intellectual development of the English when they return to the wine that their heroic forefathers drank, and when every decent person shall on all hospitable occasions be able to produce a bottle of wine and discuss its *flavour*, instead of, as at present glorying in the *strength* of their potations and valuing them accordingly.

One thing that would go with the greater use of Bordeaux wine would be the custom of drinking it in its proper place *during dinner* as a refreshing and appetising draught, to entice the languid palate to demand an additional slice of mutton. Physicians who practise amongst town children, of a class in life where prevention is looked to as well as cure, know well the capricious and feeble appetites of many children; how they cut off their fat and the *brown*, and how they reject every morsel at all under-done. Now, be the case what it may, children *must* have *quantity* and *variety* of food. If not, if the parents content themselves with the slovenly surveillance of servants, who report that Master Johnny is a remarkable child, quite healthy, but won't eat his meat; or that Miss Jeannie is plump, and *so strong*, that she takes and requires as great a dose of aperient medicine as a grown man, and that she loves bread and butter and sugar better than meat;—then comes an age—say, 14 to 17—when the teeth are found to be decayed, or when the boy or girl is said to have a "delicate chest," and must go to Torquay, or the young lady to some chalybeate water, and all those other horrors too well known to parents of "delicate," *i.e.*, underfed or appetiteless children. Much of this might have been prevented, puncheons of cod-liver oil might be spared at the age of 16—20, if, at the age of 7—10, the governess had said, "Miss Jeannie won't eat her mutton," and if the Physician had said, "Give her some kind of light, clean-tasting, sub-acid wine—Rhine, Bordeaux, Chablis, or some of the clean, dry wine of Greece or Hungary—let her sip this, *ad libitum*, at dinner, so that it may tempt her to relish her mutton."

Curious are the social changes of sixty years. Dr. Trotter, who wrote a book on drunkenness at the beginning of this century, denounces the custom of taking wine at dinner:

"Thracum est," he exclaims, "tollite barbarum morem!" To drink *after* dinner was then orthodox. *Now*, we say, drink what you please *at* dinner; the more and the more varied the wine (on festive occasions), the better; but don't *sit* and drink after dinner.

Monsieur A. Courty, the eminent Surgeon of Montpellier, who visited England a year ago to study ovariotomy and other professional matters, and who has recorded his sentiments in his very interesting "*Excursion Chirurgicale en Angleterre*," remarked on some of our social customs with admiration, but our dinner-barbarisms excited his horror, as well they might. With the best meat, wine, and vegetables, we cook and devour them like savages. You may see grown men—and M. Courty publishes the damning fact to civilised Europe—drinking sweet champagne with mutton! and reserving a fine bottle of Bordeaux, worth, perhaps, ten shillings, till after dinner, when a parcel of Yahoos sip it whilst they are munching sweetmeats, biscuits, preserved ginger, damson cheese, and raw fruits! How can Bordeaux wine ever be popular if put to such silly, not to say wicked, uses? Of course if taken by a man who looks for a dram in the guise of wine it will taste thin and cold, and if wasted on a booby who is devouring sugarplums, it will taste sour. No wonder a refined Frenchman such as M. Courty, though he might marvel at English self-government, though he might praise "ce fameux *home*, ou la vie privèe se retranche;" though he envy our houses so full of comfort, and each looking like "une petite forteresse, separèe de la rue par une forte grille et un fossé profond" (for in this ideal guise does he describe our area railings), and though he admire the success of English ovariotomists, should go away with the impression that we are savages at the dinner-table.

Testimonial to Dr. Ringer, of University College Hospital.—At a meeting of the students of the above School on Friday last, November 25, the Chairman, Dr. Rawlins, presented an elegant silver service, with a suitable address, to Dr. Ringer, Professor of Materia Medica and Assistant-Physician to the Hospital, as a token of their appreciation of his qualities as a Physician, and of his kindness to them at the Hospital.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF CAMBRIDGE.

So many histories of Cambridge have been written, and one faithful and comprehensive history has been brought out for Medical readers so recently by my friend, Professor Humphrey, that I feel a difficulty in approaching the work. I would, in fact, willingly and anxiously leave this subject altogether, were it not essential to maintain the order of these papers, and to deal with one town in the same manner as with those which have preceded. If there is one advantage which I may in the end be able to claim over previous writers, it is that the chronicle will be a sort of focussed picture gathered from the light that is already largely diffused.

We have all from our childhoods been so entirely accustomed to speak of Cambridge as an University town and centre of learning, that we are led, as by instinct, to think of it as an University from its first origin, to assume that the town sprang up, in fact, as a mere surrounding to the schools, halls, and colleges. In a certain sense, in respect, that is to say, to modern Cambridge, this position is true, for in the reign of William the Second—Rufus—Roger de Montgomery laid the whole place waste, and when the students, driven to their various homesteads or wandering travels, returned, the hostel and lodging-house rose mainly for their accommodation. Previous to this event, in the reign of the Conqueror, the fame of Cambridge had reached the royal ear with such noise that Henry, one of the sons of the King, was sent there to take out what we should now call his terms, and to ascend so high in the royal arch of knowledge as to be recognised afterwards by the honorary title never since granted of "Beauclerc."

Beauclerc, naturally feeling profoundly interested in his school and its prospects, had not long been king before he repaired the breaches that had been made by the fierce Montgomery. Under these auspices the University was reopened, and scholars began to come in again from the surrounding counties, the University was honoured by being rendered exempt from the power of the Sheriff, and a corporation was granted from the Crown on the smallest possible yearly return to the exchequer—viz., one hundred and one marks.

From this named period we may consider that Cambridge has progressed as an University town; it was then very primitive, its houses were built of wood, and most of its churches were of the same material. There was a castle which had been built by the Conqueror; there was a little town, having little trade, to which mendicant friars found their way more readily than even students; and there were no colleges as there are now, but some general hall or halls where teaching was carried on either by oral instruction or by translation of the then rare treasures in the shape of books, and hostels where the scholars lodged, paying "mine host."

We may safely look back to the time we have named in our English History for the University of Cambridge, or, as it was called also, of "Grantbridge." A great deal of learned dust has been raised and driven away and raised again on the question of its *earliest* origin as a seat of learning and art. There have been those who have assumed that even the glorious old Pagan philosophies and faiths, the dissolution of which into the all-absorbing circle of Rome has been so finely pourtrayed by Froude, found cultivation on the banks of the "Grant" or "Cam." But I touch not this obscure point; Dry-as-dust must first make it clearer, and then I shall be happy to take the dead body which he has dug up, and try and give to it what he never can give—such resemblance of life that it shall not be repulsive to the exquisites. A writer on the history of Cambridge, who wrote so far back as 1812, when Lord Palmerston was the representative of the University in Parliament, and Wollaston was Jacksonian Professor, but who is too modest to give his name to his labour, describes, in terms more graphic than any other author I have read, the facts connected with the early history of the town. He sums up the whole of the reliable facts so well that I cannot do better than follow his description. He says:—

"That Cambridge was a British settlement is extremely probable, and the high artificial hill within the bounds of the castle has been supposed by many to be a specimen of British labour. But, however this may be, that it was anciently a large and populous city, and a small fortified station of the Romans (probably the Roman Camboritum), is well attested. It once extended from the castle of Grandchester or Grantchester, now a small village two miles south-west of the town, to the castle at Chesterton, three miles in length along the west bank of the Cam. There is nothing, however, remaining of that ancient city, except the village of Grantchester, and the ruins of St. Giles and St. Peter, now part of modern Cambridge, which form the two extremities of it. Under the same meridian, or a very few minutes to the east of it, was originally a Roman station, situate on an elevated ground on the north-west side of the river Cam. It is of an irregular parallelogrammic figure, containing near thirty acres, surrounded on all sides with a deep entrenchment, great part of which is still remaining, particularly towards the south-west side, and in the ground behind St. Mary Magdalen College, which has been converted into a fine terrace for the exercise of its Fellows.

This town was divided into four parts, by two streets crossing each other at right angles. The principal street from S.E. to N.W, being from the foot of Gog-Magog hills, passed the Cam by a ford (now the great bridge) and continued through this place in a straght line to Godmanchester, another station of the Romans; and that which crossed it was another road which passed through the city from S.W. to N.E. towards Ely. The former seems to have been on the S.W. side of the city, being a large square, proper for the purpose near the south-west gate. Though numerous fragments of urns, Roman coins of Vespasian and later Emperors, various implements of sacrifice, and other antiquities have been found in the neighbourhood, there are but little remains of Roman work, except the entrenchments before mentioned. However, there are not wanting some proofs of Roman buildings having been on this spot; for the curious in antiquities may find in the ruins of St. Peter's Church, which stands within the south angle of the Roman fortification, many Roman bricks worked into the wall on each side of the north door; and it may be observed that this door is thirty-four feet eight inches wide, being exactly three Roman feet. These bricks were most probably taken from the remains of some Roman building; nor is it improbable that the church stands on the ruins of a Roman temple, which, after lying in ruins some time, and some of its materials sold, was by a brief repaired, though on a very confined scale. Another church stood formerly within the bounds of the Roman town, but is now entirely destroyed.

It is quite uncertain when this celebrated University, as we have already observed, was first founded. Its establishment, as a place of instruction for youth, probably soon followed the introduction of Christianity into this island, in the fourth century, during the Saxon heptarchy; particularly as the accustomed journeys to Rome for that purpose were too expensive, and attended with great danger. It is generally allowed that Sigebert, King of the East Angles, much encouraged its advancement, about the year 630.

In this state, however, it shone but with a feeble light. Saxon divisions and Danish ferocity by turns laid waste this nursery of science; and in 1010 the town was plundered by the Danes and totally destroyed by fire."

Dr. Humphrey gives a more detailed account of the origin of the town. He remarks:—

"The *Mound* upon the Castle Hill, on the north of the town, is the 'foundation-stone' of the place. Its base, composed of chalk, is natural. Its upper part is artificial, and is attributed to British hands. It was probably not for sepulchral purposes, but as a look-out, or place of defence, like the great mound at Marlborough, and, perhaps, also, Silbury Hill, near Marlborough, which is the largest of the kind, and which is said to be altogether artificial. Enduring 'still in defiance of the teeth of time, as the most greedy glutton must leave those bones, not for manners, but necessity, which are too hard for him to devour,' the Castle Mound gives a good view of the surrounding country, including the Isle and Cathedral of Ely; and from its base are seen running out,

towards the north and east, two bastions, with a curtain between them, erected for the cannon of Cromwell.

The high ground on the north of Cambridge, prolonged into the tongue upon which this mound stands, slopes agreeably to the river, facing the south and sheltered from the north, furnishing an attractive site, under the name of 'Cair-Graunth,' for the residence of the primitive architects of the mound; and on the opposite, or southern side of the river, a slightly raised ridge of gravel led, through the marshy valley, to the Gog-Magog slope. The river was, therefore, approachable here in both directions; whereas, for several miles above and below were marsh and morass on one or both sides of it. Here, accordingly, was a ford, and subsequently a bridge, as indicated by the successive names 'Camborit*u*m' (*Rhyd*, the Celtic for 'a ford'), and the Saxon 'Grantabrycge,' or 'Cantabrycge.'

The same natural advantages attracted the Romans, who took possession of the ford, and occupied the mound and the sloping ground between it and the river. The boundary lines of their station are, at parts, still traceable; and many coins and other of their leavings have from time to time been found. Two of their great highways crossed here. One—since called the 'Akeman-street'—from the coast of Norfolk, near Lynn, ran through Ely to Cambridge, then, through Barton to Cirencester and Bath. The other—so-called 'Via Devana'—from Chester and Huntingdon, through Cambridge, over the Gog-Magog Hills, to Colchester. The Huntingdon-road, Bridge-street, and Sidney-street are nearly on the line of the latter road; its course may be traced to the Gog-Magog Hills, and it forms a broadway running for some miles beyond them.

Rough handling followed the departure of the Romans; the great pillagers of the period having found their way here, and, I suppose, established themselves at Denny (Dane's Island), nearly half way to Ely. The rich pasture lands and well-made arches built into the farm-house of 'Denny Abbey' tell of the better habits, intelligence, and skill of their Norman successors. Still, in the time of the Saxons, Grantabrycge must have been a place of some size and importance; for there was a royal mint here in the reign of Ethelred II., the coin being distinguished by the word 'Grant;' and the town extended to a considerable distance on the south side of the river, judging from the situation of St. Benedict's Church, the tower of which is one of the best specimens of Saxon architecture in the country, and the wall of which, at the east end of the nave, is also Saxon. Moreover, there existed, at this time, a fraternity, or 'gild,' the members of which were bound to assist one another to avenge, by fine or otherwise, the injury, insult, or murder of any of their body. This and other similar combinations, among our Saxon ancestors and other northern nations, for mutual protection and assistance in various ways, in those lawless times, were to some extent, religious societies, being cemented by oaths and services observed in certain churches; and it is not improbable that St. Benedict's Church was built by, or by the aid of, this gild. At any rate, we find, in the reign of Edward III., 'the Guild keeping their prayers in St. Benedict's Church,' and the 'Guild of the Blessed Virgin observing their offices in St. Mary's Church,' uniting to found the College of Corpus Christi.

The only other Saxon remnant in the place is, I believe, the chancel arch in St. Giles' Church, which is considered to be of earlier date than St. Benedict's tower, and is an example of a chancel arch alone remaining, while the nave and chancel have been rebuilt.

The Normans built a castle on and around the 'mound,' the keep being, probably, on the flat top of the mound; and the Conqueror conducted his military operations from it against the Saxon prelates and nobles who, with Hereward and his army, long held their 'camp of refuge' against the Norman, and would have continued to do so had not some discontented monks enabled him to surprise the garrison. The castle has altogether disappeared, less under the influence of war or time than under the rude hands of those who coveted its stone and timber for other purposes.

The value of stone here, and the consequent sparing use of it, are illustrated by the fact that the old building on the north of the river, near St. John's College, commonly called 'Pythagoras school,' is named in ancient records 'the stone house,' showing there to have been no other of that material. It was a Norman manor-house on the Merton estate, and, till lately, a good specimen of its kind, consisting of a ground flour, vaulted, for cattle (like the present farm-houses on many parts of the Continent), and a first floor, with one large hall for meals, servants, etc., and two private chambers for the head of the house and his family. This house, with the surrounding Merton estate, was conveyed to Merton College, Oxford, by the founder, and still belongs to that society."

From the time of Beauclerc, and through the reigns of Stephen, Henry the Second, Richard the First, and John—*i.e.*, from 1100 to 1216, we may recall Cambridge as a centre of learning as yet celebrated, but not perfectly organised. Dr. Humphrey draws a striking picture of the first stream of Professional teaching in the eleventh year of Beauclerc's reign. The Abbot of Croyland then takes to his manor of Cotenham, near to Cambridge, four monks, who had accompanied him from New Orleans to England, and were versed in the philosophy of their time. Day by day these four first professors, sandalled and shorn, trudge into Cambridge book in hand, and there separate to teach openly what they know of the sciences, in a hired barn, to an audience that soon increases in size. What a picture this little story opens to the mind! How vividly the four monks start up before us on their way, communing on their day's work, and congratulating themselves on their success; and anon their returning at night to the jolly old abbey, where they knew that fine cheer and excellent fun awaited them under the lord abbot at the head of the board there, who had travelled so much, knew so much, was so anxious to hear that all went well and that the disputations progressed, and who fenced about every reference to work with an admonition that there was something in life even for learned monks other than mere work. How one would love to see for a brief moment those first days of philosophy on the unadorned Cam! Is there no painter of classical soul whose genius can catch the thought of the first four Cambridge professors "on their way," and make the canvas glow with the transformation of the ideal into the material?

The town, during the time we have named, was not without its changes of fortune. In 1174 it was subjected to almost virtual destruction by fire, and Trinity Church was destroyed. On the more fortunate side, those strange enthusiasts, the Knights Templar, who still remain in mimic grandeur, came to Cambridge and built the "Church of the Holy Sepulchre in the Jewry," on the model of the Holy Sepulchre at Jerusalem. This church, which remains as St. Sepulchre's—a sad perversion of the original term,—is an antiquarian feast of perennial standing. It is analogous in construction to the "Temple" in London. Pain Peverell, standard-bearer in the Holy Land to Robert, Duke of Normandy, has the credit of being the founder of the church of St. Sepulchre.

It was during the long reign of the gentle Henry the Third that Cambridge first promised to become a town of colleges. In the year 1257, Hugh de Balsam, or Balsham, the sub-prior of Ely, purchased two hostels in Trumpington-street, near to St. Peter's Church. His object was to transform the hostels into collegiate residences, so that the students should not be subjected to imposition of charges from the traders without. He then began to build "Peter-House," and in the thirteenth year of Edward the First he, once the sub-prior, being then promoted to the see of Ely, succeeded in getting his new College incorporated. From that time until now Peter-House has flourished. It is a charming house for student life—quiet and peaceful, with a small park attached holding fallow deer, some so tame that you may catch them and let them eat from your hand: and a rich garden further off that in the early morning is paradisical. To lie there on the sward, when the air is at 70° and the sky pure, and the birds in good tune, and the flowers generous of their perfumes: the very recollection is worth a Californian mine! Gray, churchyard-elegy Gray, who rendered himself deservedly immortal in one poem, lived in Peter-House. The idle rascal, if he were not forced to rise, would prefer to keep his bed until four in the afternoon. I wonder whether he had that garden to roam in when the knell of parting day was on his ear, and he was lifted to such sublime height of thought that the ignorant may be pardoned for holding it more than mortal?

Dr. Humphrey tells us that Peter-House has fourteen fellowships. It also offers twenty-three scholarships—twelve worth £60, six worth £40, and five worth £20 each per annum. The chapel, hall, and library are very commodious, and a picture of Hugh de Balsam, or Balsham, is retained in the hall.

In 1326, the twentieth of Edward the Second, a building was erected, under the name of "University Hall," by Dr. Bedow, of Great Bedow, in Essex, Chancellor of the University. The hall was most unpretending; but for sixteen years

it sufficed to receive many scholars. By an accident it was burnt down. Hereupon Bedow sought the aid of the Countess of Clare, third sister and co-heir of Gilbert, Earl of Clare, who, responding to the appeal, rebuilt the hall and endowed it with lands. Hence it was called Clare Hall from that time until recent date, when, with other halls, it has been designated a College. The College stands on the east of the Cam; and the walks around it are very beautiful. Here Archbishop Tillotson was educated; and here the miserable Dr. Dodd, scholar, poet, forger, preacher, and courtier, passed his terms.

Dr. Humphrey states that at present there are seventeen fellowships in Clare College; also twenty-four scholarships' eight of which are worth £60, eight £40, and eight of £20 each per annum; besides one of £60 and one of £40 open to students who have not come into residence.

(To be continued.)

REVIEWS.

Sight and Touch: an Attempt to Disprove the Received (or Berkeleyan) Theory of Vision. By THOMAS K. ABBOTT, M.A., Fellow and Tutor of Trinity College, Dublin. London: Longman. 1864. Pp. 178.

THIS book, although of no great size, is a very tough morsel. The author has chosen a subject which is intrinsically somewhat abstruse: it is one which, highly interesting as it is, requires to be very skilfully dealt with to secure the continued attention of readers. Mr. Abbott, however, most probably entertains a thorough contempt for common readers,—he writes for the deep thinking. He would not be the author of a shallow book; his readers must burn the midnight oil, at once solving the inherent difficulties of the subject and the obscurity of style in which these difficulties are too often enveloped. Not that we find fault with the construction of his sentences, nor with the purity of his phrases. What we charge him with is a frequent ambiguity of expression, which compels the reader frequently to look back several sentences to discover what it is that something said is predicated of. This we state merely as a hint to the author in case a new edition of his work should be required.

In the following paragraph Mr. Abbott states the purpose of his work is—

"To show—1st, that the immediate perception of distances by sight is in no way impossible or anomalous; 2nd, that on the contrary, the assumed association of visual and tactual sensations does not exist, and is even impossible; and 3rd, that neither touch, nor the locomotive faculty, or sense is perceptive of distance. I propose to show, further," he says, "that the eye is perceptive of distance,—firstly, by appeal to consciousness; justified, secondly, by the analogy of the senses, and by physical considerations; thirdly, by the analogy of the lower animals; fourthly, by special cases of congenital blindness cured in mature years."—P. 10.

We confess we are unable to perceive the philosophical grounds upon which our author conceives his two leading foundations of fact to be established—namely, that "objects of sight appear to be external;" and "that within certain limits we can discern their distance with great accuracy."—P. 174.

The doctrine which, we presume, our author controverts under the name of the common, or Berkeleyan, theory of vision is, that the notion of extension, distance, and figure is derived from the sense of touch, including, doubtless, what has been called the muscular sense, but that the sensations consequent on the impression of the rays of light reflected from bodies before the eyes on the retina are totally different from the sensations originating from the same bodies through the sense of touch; that the difference between the respective sensations of the same origin through the sense of touch and through the sense of sight are as great as between things and the names of things, between objects and the symbols of language which severally denote these objects; whence that it is necessary for each human being to learn, by experience, what each sensation obtained, through the sense of touch, corresponds to out of the sensations supplied by the sense of sight.

Every intelligent child, before it is a few years old, clearly perceives that such and such sensations received through the sense of sight, correspond to such and such sensations received through the sense of touch; so that this question turns upon the particular mode in which, under the guidance of intuition, the self-education of mankind in childhood is conducted.

Modern physiology clearly proves that Berkeley, and those who follow him implicitly, ascribe too little to the sense of sight as respects the office of affording notions of extension, figure, and magnitude. They, in short, deny to this sense any share in these notions, confining its office to imparting notions of colour. But physiology plainly shows that the notion of colour cannot exist without the notion of extension. The light spot on the retina corresponding to a small coloured body before the eye has a definite magnitude, and the variations of that magnitude on the retina as the external body is brought nearer or moved further off are undoubtedly objects of perception; for the number of minute nervous filaments of the retina affected by the impressions of light in their peripheral extremities, where consciousness has its seat, is greater the nearer the body is brought to the eye, and less when the body is moved further away. Neither is there any reason to doubt, on physiological grounds, that such an object—let us suppose it to be an orange—is seen at a very early period out of the eye; but there is great reason to suspend our belief that before just notions of extension have been derived from the sense of touch, any exact notion of the several distances of the orange from the eye, in the case supposed, could arise. A child of nine months old, in the nurse's arms, seeing a glittering stone in a brooch on a lady's breast, sitting close by, darts its hands towards the stone, and after several ineffectual attempts at last seizes it. This is plainly the mode in which a knowledge of the exact distance of objects before the eye is acquired. Such a stone at different distances from the eye produces correspondingly different effects on the retina, but there is no proof that these different effects are interpreted into different distances till the sense of touch is called in to the aid of the sense of vision. However often a child had grasped an orange in the dark with its hand, there is no proof that it could recognise its figure by sight until it had first grasped it before its eyes in the light.

If Mr. Abbott will reconsider his argument, we think he will discover that he has not proved any more than what is here implied. So far, then, we agree with him as against those who implicitly follow Berkeley.

We do not doubt, any more than Mr. Abbott, that the adjustment of the visual axis is much concerned in the perception of the differences between an object at successively greater and greater distances from the eye. But how is that adjustment made but by the nice contraction of the muscles of the eyeball? But the muscles of the eyeball belong to the sense of touch, so that it is by touch that these differences are estimated. If Mr. Abbott says that these muscles adjust the visual axis, not by volition, but by reflex action, we do not dispute this point. We allow that the muscles, at first, at least, adjust the visual axis by reflex action—that is to say, without volition. But although no conscious volition precedes their contraction, every act of contraction gives rise to a sensation—that is, to a consciousness of the particular movement—and such consciousness, under each contraction, is the sign or symbol corresponding to each particular adjustment, or of that change which is afterwards, by the aid of the infant's hands, discovered to be correspondent to a variation of distance. We claim the following quotation from Fortlage (*Psychologie*, vol. ii., p. 33), which Mr. Abbott employs to strengthen *his* view, as contradicting his and supporting *our* argument:—

"The distances of objects from the eye are not measured, but weighed, just as height and depth of tone are weighed by delicate muscular contraction."—P. 105.

We recommend to the serious consideration of Mr. Abbott the following propositions:—

1. That man has by the constitution of his nature a susceptibility of the notion of space, and of dimension; and, therefore, of distance between bodies existing in space.

2. That these susceptibilities are first realised soon after birth by the consciousness of the endless sensations arising from impressions on and within his bodily frame. For example, when one hand grasps the other hand, or when a part of the body is now more, now less immersed in water.

3. That the reference of the consciousness in a sensation to the point of the body where the corresponding impression is made is not acquired, but intuitive and absolute from the first.

4. That when a strong impression is made on a membranous surface, as that of hot water on the skin, the several states of consciousness arising from the impressions on the peripheries of the numerous nervous filaments concerned naturally coalesce into one whole, representing in consciousness a corresponding extended plane.

5. That, without following out the last proposition further,

it is plain that the retina, when affected by light, falls within its scope.

6. That objects are seen before the eye owing to an impression on the retina must be dependent on an original principle of man's mental constitution.

7. And that this is probably the case before the infant has discovered that these and all other such objects of sense are not a part of self.

Mr. Abbott has plainly devoted much time and research to this subject. We advise him still to continue the same pursuit; and we have no doubt if he publishes a new edition of this book that we shall find ourselves able to agree with him to a much larger extent than we have felt it possible to do upon this occasion.

GENERAL CORRESPONDENCE.

QUACKERY AND THE EDUCATED PUBLIC.

Letter from Dr. Lionel S. Beale.

[To the Editor of the Medical Times and Gazette.]

Sir,—A "Clergyman" writes a letter to the *Times* of Nov. 30 complaining that the most distinguished Physician in England could not denounce quacks. He deeply regrets that "as a rule the lips of Physicians and Surgeons are sealed on this subject. They fear to denounce these wretches, lest they should be thought to do so from interested motives." He says he believes "that the anguish and despair of his patients bring in to one of these men an income of £10,000 a year."

Now, it is rather hard to complain of us in this way. We have certainly done our part to oppose this and other forms of quackery. Our system of education has been greatly extended, and no man can enter our Profession without being fully qualified. There are at this time, in every part of the country, well-educated Practitioners ready to give sound advice. But it is quite certain that the more highly a man is educated, and the more honestly and conscientiously he discharges his duties, the less likely is he to promise cures, or to speak confidently of his own powers. Nor is it possible that a man who has spent some five or six years as a student, and has earnestly worked at the scientific and practical matters brought under his notice, can bring himself to assert that he is able to achieve in incurable cases what his knowledge of science and practice demonstrate to him to be impossible. Yet it is notorious that many persons will not feel content with anything short of an absolute promise to "cure."

To us in the Profession it is a marvel with what facility many highly intelligent persons may be made to believe in things that are not physically possible. Nor is there a striking want of common sense exhibited by half-educated persons alone. I remember an instance remarkably to the point. One of the most distinguished scholars in this country had a near relative suffering from heart disease, there being a loud systolic mitral bruit. The diagnosis was simple and decisive. Several men high in the Profession saw the patient, and every one of them concurred in opinion. The case was explained to the scholar, who was well able to understand, and probably did fully understand, the physics of the circulation. Yet what did he do? He argued thus,—"Although the regular Practitioners can do nothing for this case, perhaps some irregular Practitioner may be acquainted with some medicine, some mode of treatment unknown to the Profession. It is my duty not to lose a chance, and therefore an irregular Practitioner shall see the case." And after men who had spent their whole lives in thorough work had examined an ordinary case of mitral disease, and had pronounced confidently their opinion, a man who would not probably have passed an ordinary examination upon the physiology of the circulation was consulted, and his opinion was given and weighed in the same scales against the other, and being favourable, for a time prevailed.

This sort of thing happens every day. It is notorious that persons who have never paid attention to Medicine, or to the first principles of science, consider themselves able to judge between what they call one system of medicine and another, the one resting upon centuries of honest work and honest thought, the other resting upon no principles whatever save the confident assertions of men as ignorant and idle as they are unscrupulous, impudent, and selfish. A man, however ignorant he may be, can, without any great trouble to himself, ascertain if a Practitioner be properly educated or not. Can not an intelligent, well-educated person who really tries to do so distinguish between the work of true working men, done for the work's own sake, and the pretentious and ignorant display set forth by those who hate true work? We have surely done our part towards the public honestly and well, and we ought not to be asked to denounce quacks. Denunciation, however strong, will not mitigate the evil; nay, an honest Practitioner would be both very unwise and very unkind who would denounce quacks to a patient tending quackwards, for the denunciation would alone settle the matter, and the patient would soon be in the hands of the quack.

There is the strongest inclination upon the part of a vast number of persons to repose confidence in that which is not part of a regular authorised system, in that which is opposed to the opinions of the most learned and most hard-working, in that which is racy, sensational, and unorthodox, merely because it is irregular, unauthorised, opposed to what learned and hard-working men believe orthodox. How are we to prevent this tendency in the public mind in matters Medical? We have done, and are doing, all that men can do. Look at our system of education—our colleges, our Hospitals, our scientific, our sanitary, our practical daily work. If the public will not be influenced by what they can observe for themselves, is it likely they will be influenced by anything we can say for ourselves or against others? Look how very little trouble the great leading journal itself takes in selecting scientific information for its readers. The letters it inserts—as, for example, some of those on bees—seem to be selected rather for the character of the writing than for the scientific truths they contain; nor has the selection of letters on "advertising quacks" (a) been conducted with the caution displayed in other matters. Not long since, there was an account of a girl in whose stomach a snake had grown to so large a size, that its coils could be felt through the abdominal walls. Look at the advertisement week after week in the best part of the *Times*—a half-crown publication which is being entirely published in the *Times* in the form of an advertisement. The appearance of this enormous advertisement week after week shows clearly how large a sum it is worth while to invest in directing public attention to the treatment of diseases with the nature of which every regular Practitioner is well acquainted. It forms, probably, a truthful indication of the restless state of the public mind with regard to matters Medical, and one may form from this fact a rough estimate of the vast number of persons who have but very slight and fluctuating confidence in their usual, well-known, well-educated, honest, and painstaking Medical attendants.

I am, &c. Lionel S. Beale.

King's College, London, November 30.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, November 22.

Richard Partridge, Esq., F.R.S., President.

A paper, by Mr. Thomas Nunneley, was read

ON VASCULAR PROTRUSION OF THE EYEBALL, BEING A SECOND SERIES OF THREE CASES AND TWO POST-MORTEM EXAMINATIONS OF SO-CALLED ANEURISM BY ANASTOMOSIS OF THE ORBIT, WITH SOME OBSERVATIONS ON THE AFFECTION.

The author began by referring to the first series of four cases of this uncommon affection published in the forty-second volume of the Society's *Transactions;* and suggested that, as these cases (like the three which form the subject of the present communication, and especially the results of the post-mortem examinations of the two patients who died long subsequent to deligation of the carotid artery, the particulars of which he was about to relate) proved the opinion so long entertained of the nature of the affection—aneurism by anastomosis of the orbit—to be incorrect, the name of it should be altered; and he suggested that of "vascular protrusion of the eyeball" as more in accordance with its true character. The first of this second series of cases was of traumatic origin; it occurred in a man who was thrown from his horse. There were very decided symptoms of fracture of the base of the skull. In a few days after the accident the left eyeball

(a) See letters in the *Times* November 30.

began to protrude, and to exhibit all the symptoms characteristic of the disease. Five weeks after the accident, as the patient was getting worse, and there was fear of the eyeball sloughing, the common carotid artery of the same side was tied. The patient speedily and completely recovered, and now (eighteen months after the operation) remains well. The second case was of spontaneous origin, in a woman aged 47. It occurred suddenly, soon after she got out of bed. It had existed ten months. Beyond rest and cold lotions, very little treatment had been submitted to. It occasioned considerable distress, and incapacitated her from much work, as all exertion increased the suffering. It was probable that before long she would have to submit to more active means. The third case was also spontaneous in its origin. For a long time the true cause of it was very obscure. The protrusion of the globe was excessive. Although ligature of the carotid (which was resorted to) was successful in arresting the protrusion of the eye, owing to other tumours which the patient suffered from, his health continued to decline, and he died exhausted eighteen months after the operation. The eyeball had collapsed, and had given no further trouble. For some time before the patient's death the disease was known to be malignant. A post-mortem examination revealed a tumour developed in the cavernous sinus, pressing upon the ophthalmic vein, and passing into the orbit and the zygomatic fossa. Another tumour, which also during life had been pulsating, passed through an opening in the right parietal bone on to the brain. A large tumour projected externally from the sternum, and also into the cavity of the chest. The thyroid was a large mass of malignant degeneration. The second post-mortem examination was of the body of Mrs. J., whose case was reported in the first series of cases. She died upwards of five years after the operation had been performed, since which, until a few days before her death, she had generally been in good health. The fatal disorder was thought to be acute bronchitis: she suddenly became comatose, and died soon afterwards. The entire brain was found to be small; and the anterior lobe of the cerebrum on the side in which the carotid had been tied was considerably smaller than that of the other side. This condition, however, the author thought could hardly be attributed to the ligature of the vessel, for which he gave his reasons. On the side of the sella turcica, just as the ophthalmic artery was given off from the carotid, was found a circumscribed aneurism, filled with a solid coagulum, which pressed upon the ophthalmic vein, and thus occasioned the protrusion of the eyeball. The author thought these seven cases and the three post-mortem examinations satisfactorily showed the true cause of the ocular protrusion to be pressure upon the post-ocular veins, which interfered with the free return of blood from the eye and orbit. He contended that usually there was no disease whatever in the orbit itself, the condition of the parts in it being merely passive, as a swollen limb is below a large popliteal or axillary aneurism; and that though a circumscribed aneurism, as in most sudden cases of spontaneous origin, or a diffused aneurism from rupture of a bloodvessel in traumatic cases, was the most common cause of the development of the affection, this was by no means a necessary condition for the existence of it. He believed that it might be induced by anything which causes pressure upon the ophthalmic veins or difficulty in the return of blood from them. Though in the most acute form the disease had been rarely seen, and its nature had been misunderstood, the author was inclined to think that in more chronic and much subdued degrees it was not so very uncommon. He considered that in many cases of protruded eyeballs in weak and delicate persons, in those with bronchocele or cervical tumours, and where there is impeded circulation from disease of the heart (particularly of the right cavities) or of the lungs, the disease is essentially of the same character as the more acute affection, though at first sight they may appear to be very different, and certainly do require such different management.

Mr. Curling said that it was remarkable that Mr. Nunneley should have met with so many cases of an affection so rare as aneurism in the orbit, and thought that much credit was due to him for the pains he had taken in investigating these cases and in endeavouring to establish their true character. Mr. Nunneley, however, had committed a slight error in stating that no light had been thrown on the affection for forty years after the publication of Mr. Travers' case, as Mr. Busk's paper was published in the *Transactions* of this Society twenty-five years ago. Mr. Busk tied the carotid artery for an aneurism in the orbit; and, in some able remarks on the case, showed that it was not of the nature of aneurism by anastamosis. The case of traumatic aneurism of the ophthalmic artery, in which Mr. Curling also tied the carotid artery with success, and a similar case which occurred to the late Mr. John Scott, both published in the *Transactions* some years later, confirmed the views of Mr. Busk. Mr. Curling thought that Mr. Nunneley had not been happy in abandoning the designation "aneurism of the orbit," used in his first paper, and substituting "vascular protrusion of the eyeball." To class affections of very different character under one common head taken from a prominent symptom was not calculated to advance Surgical pathology and practice. He had always thought that the late Mr. Stanley had committed a mistake of this nature in describing tumours of bone of different kinds under the head of "pulsating tumours." What would be thought of classing popliteal aneurism, other tumours in the popliteal space, and diseases of the lower end of the femur obstructing the circulation, under the head of vascular œdema of the lower extremity? Yet this would not be more unreasonable than grouping aneurism in the orbit, malignant disease in this part, and certain cases of bronchocele, under the head of vascular protrusion of the eyeball. This mode of classification gives no help to treatment. If accuracy and nicety of diagnosis are to be valued, we must call diseases after their real nature. In cases of aneurism, prominence of the orbit was not the chief symptom. The heavy beat felt on placing the finger on the globe, the constant pulsation in the head so distressing to the patient, and the early destruction of vision from pressure on the optic nerve, were more important symptoms; and the only treatment which could save the sight was tying the carotid artery at an early period. The importance of an accurate diagnosis was shown by Nunneley's third case, in which he had tied the carotid artery for a malignant tumour in the orbit; and without intending any reflection on the proceeding in the case in question, Mr. Curling did not suppose that Mr. Nunneley would recommend the practice in similar cases. Mr. Curling considered it better to adhere to the term which designated the disease aneurism in the orbit, whether spontaneous or traumatic.

Mr. Hulke asked if Mr. Nunneley had tried digital pressure, as cures had been recorded as having followed that simple measure.

Dr. C. J. B. Williams thought Mr. Nunneley's observations did throw a light on an affection of the eyeball which was far from common. A condition of symptoms, with enlarged thyroid and throbbing of the arteries of the neck, had attracted the attention of Physicians for the last thirty years. It had been described by Graves, Corrigan, and by several German Physicians, and recently Dr. Begbie had written a good paper on the subject. He (Dr. Williams) had seen ten or twelve such cases. The eye symptoms were similar to those in Mr. Nunneley's cases, except that both eyes were affected. He (Dr. Williams) had taken great interest in these cases. They presented, at first glance, the appearance of organic disease, but the sequel proved that they were not, as the symptoms might be removed by treatment. In one of these cases the eyes were so protruded that vision was oblique, and the eye could not be closed. There was also much palpitation, and great nervousness and exhaustion. Yet under treatment, especially with the sesquichloride of iron, the patients, in three or four completed observations, got quite well. He (Dr. Williams) thought the cause of the symptoms was a loss of tonicity in the arteries, but post-mortem examinations in support of this opinion were wanting. He mentioned these cases in connection with Mr. Nunneley's as the results of treatment were most important. It shows that this class of cases would recover by simple means, without having recourse to an operation so severe as that of ligature of the carotid.

Mr. Nunneley said that in one case pressure had been tried for a long time with no benefit. He thought the carotid one of the most unlikely arteries for compression. Mr. Nunneley thought that Mr. Curling must have spoken from memory, and that he was not quite accurate as to dates. Then he differed entirely from Mr. Curling as to the name of the disease. He did not think the term he had brought forward was an error in nomenclature. In such cases there might be an aneurism in the head, and not in the orbit. The protrusion, again, might be the result of compression of the vessels by a tumour; indeed, it might be the result of pressure by any tumour. In reply to the remarks of Dr. C. J. B. Williams, Mr. Nunneley said that he recognised the group of cases he mentioned and their appropriate treatment by tonics. In the class of cases he

(Mr. Nunneley) had described he should not think of adopting so severe a method as ligature of the carotid, unless there were urgent symptoms requiring it.

Mr. Curling again said that Mr. Travers' case was recorded in 1811, and Mr. Busk's in 1839.

Mr. Moore rose to support Mr. Curling's recollection. Mr. Busk's paper was devoted to showing that such cases were not cases of aneurism by anastomosis, but true aneurisms.

Dr. Sankey said that some years ago he had had under his care a case of proptosis in a case of fever. It was due to phlebitis of the cavernous sinus, and the orbit collapsed when the patient died. Dr. Sankey remarked that prominence of the globes was a symptom of the paralysis of the insane, and was due to paresis of the muscles of the globe. In those cases, however, it was equal on the two sides.

Mr. Nunneley said that he believed Mr. Travers' case occurred in 1804. He (Mr. Nunneley) cared very little to whom the credit of first pointing out the true character of this affection was given, but he could not help thinking his cases did assist us in forming a more correct opinion on them. Mr. Guthrie had not seen his patient during life, and had merely made the post-mortem examination. He (Mr. Nunneley) remarked that as the protrusion depended on causes so various, he thought a general term was safer and more applicable.

Mr. Curling wished it to be understood that in endeavouring to point out what he believed to be a slight error in detail, he did not wish in any way to detract from the great merit of the paper.

Mr. Hulke maintained that pressure on the carotid could be borne. It had been carried out for long periods in a case under the care of Mr. Bowman, sometimes for twelve hours together. But the best proof was, that cases had been cured by this method.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, November 2.

Dr. Greenhalgh, Vice-President, in the chair.

The following gentlemen were elected Fellows:—Dr. Wm. Aitken, Madras; Mr. Benson Baker, Islington; Dr. Robert Jackson, Notting-hill-square; Mr. Llewellyn Powell, Christchurch, New Zealand; Mr. Wm. Quarrell, Sidbury, Worcester; and Dr. M. W. Turnbull, Melbourne, Australia.

Dr. Gervis exhibited the

BLADDER, KIDNEYS, AND URETERS

removed from a child who died at the age of five weeks. The bladder was thickened, the ureters dilated to the size of the finger, the pelvis of the left kidney greatly distended, and the structure of the kidney itself very thin. After birth there was no apparent difficulty in micturition.

Mr. Fred. F. Jay, of Pulham-Mary, Harleston, Norfolk, showed a specimen of

DOUBLE MONSTROSITY.

The children, both females, were joined together by the sides of the thorax and abdomen. They were in other respects perfectly formed. The labour was not attended with any great difficulty. They were born alive, but died in a few minutes. There was bnt one cord.

Dr. Adolph Rasch exhibited a

VAGINAL DOUCHE.

It consists of six feet of strong india-rubber tube, made heavy on one end by a hollow piece of lead, and having at the other an elastic bougie with several holes in the bulbous end, for introduction into the vagina. The instrument acts as a syphon; and the only but important point for which Dr. Rasch claims some credit, is the very simple way of establishing the flow through the tube. This is done by immersing about two feet of the tube, along with the leaden end, in a vessel containing water, whereby this part of the tube becomes filled with water. It is then lifted over the brim, and the vessel being placed on some elevated article of furniture, the fluid at once escapes on the well-known syphon principle. Having no complicated structure, it cannot get out of order. The force of the stream is, of course, regulated by the height from which the fluid is made to flow. The instrument was made by Mr. Evan Lewis, of the City-road.

Dr. J. Braxton Hicks showed an

ANENCEPHALOUS MONSTROSITY.

The monstrosity was one of twins. Its delivery could not be effected until the cord was divided, owing to the shortness of the latter. The cord was cut through above the brim of the pelvis.

Dr. Greenhalgh and Dr. Braxton Hicks presented a report on the specimen removed by Mr. Baker Brown by the operation of ovariotomy. After giving a complete account of the general and microscopical appearance of the tumour, they conclude by stating that it was a specimen of that form of disease recently designated adenoma of the ovary.

A paper, by Dr. Henry Eastlake, was read on

THE MANAGEMENT OF THE THIRD STAGE OF LABOUR.

This paper consisted of an historical, analytical, and critical dissertation on the subject. Having briefly described the opinions which existed amongst the accoucheurs of times gone by, the author proceeded to give an account of the modern views and principles which govern the placental stage of labour. Dr. Eastlake laid great stress upon the hand being placed firmly on the fundus uteri at the moment the child is being expelled, the uterus being thus followed down, and the contraction maintained by gentle pressure. He stated that external manipulation, judiciously applied, was, in the majority of instances, quite sufficient *per se* to effect the expulsion of the afterbirth, without any traction whatever on the funis. He believed that the great secret was to exert the pressure during a contraction; in short, to act in unison with nature as we did in the application of forceps, where we applied our chief force at the moment of a pain. Dr. Eastlake said he had no doubt that many would imagine that after all this was no modern idea; but he demonstrated that this teaching was not definitely described and insisted on in our manuals of obstetrics. Dr. Credé, the Professor of Midwifery at Leipsic, appeared to be the only one who had advocated this doctrine and brought it prominently before the Profession. The author next considered the subject of retained placenta, and alluded to the various causes which arrest Nature's process of extruding the afterbirth. The three steps in the natural expulsion—namely, (1) the detachment from the wall of the uterus, (2) its extrusion from the uterine cavity, and (3) its expulsion from the vagina—were duly recognised and dwelt upon. Regarding the subject of morbid adhesion of the placenta, Dr. Eastlake threw out a suggestion as to the possibility of being able to diagnose this condition by means of auscultation. He reasoned by analogy in stating that for a long time he had been fully persuaded that by means of auscultation we often possessed not only a negative but a positive sign of fœtal death. He described a peculiar modification of the uterine *souffle*, which to his ear was very characteristic when fœtal life had been extinct for any time. The alteration in tone suggested the idea of a muffled sawing noise, very different to the gentle blowing murmur heard in normal cases, where a living child existed in utero. How soon the modification took place the author was unable to state, from want of a sufficient field for observation. He considered that no ergot of rye should be given in cases of retained placenta, unless we were quite sure that no abnormal adhesion or irregular contractions existed. In cases of spasm of the os uteri, where the placenta became encysted, the administration of chloroform was recommended. Another point of interest alluded to by Dr. Eastlake, bearing upon the subject of his paper, was the occasional existence of a supplemental after-birth, which was spoken of by Dr. Barnes, Dr. M'Clintock, and other authors, under the name of *placenta succenturiata* or *placenta spuria*. He (Dr. Eastlake) had seen a specimen of such an afterbirth in the museum of the Lying-in Hospital in Dublin, obtained from an ovum of five months. When such a mass remained in the uterus after the true placeeta had been expelled, it often gave rise to secondary hæmorrhage, and an impression arose that due caution had not been exercised in the extraction of the afterbirth. He agreed with Dr. M'Clintock that, remembering the possibility of such an occurrence, we should be slow to utter any opinion which would damage the character of a Professional brother. In conclusion, the author alluded to the several conditions which generally authorise us to have recourse to a speedy removal of the placenta, such as post-partum hæmorrhage, convulsions, rupture of the uterus, and possibly, under certain circumstances, where the uterus was inverted, with the afterbirth still adherent.

Dr. Palfrey had understood the author to state in his paper that in his opinion the length of time that ought to be

allowed to elapse before any active measures were adopted in cases of retained placenta was one hour. Dr. Palfrey distinctly differed with the author. It appeared to him that an hour was considerably too long a time to wait, for by so long delay the evil largely increased. Take, as an example, a case of adhesion of the placenta to the uterus, the result of previous inflammation. Is not the treatment in such a case attended with much greater risk and anxiety after waiting an hour than a delay of half that time? Again, Dr. Palfrey would inquire of the author, would he advise so long a time as an hour to elapse in a case of irregular contraction of the cervix uteri, where probably a portion of the placenta may be felt protruding through the os, and the remainder firmly detained in the cavity of the uterus? Dr. Palfrey's opinion was, that in all cases of retained placenta, from whatever cause such retention might arise, *thirty minutes* was the full extent to which, with safety to our patient, we dare wait. To him it did appear that it mattered not what might be the occasion of this accident of parturition, the earlier it was detected and the more promptly it was rectified, the less the danger to our patient, the greater the subsequent satisfaction to ourselves.

Dr. Greenhalgh felt much indebted to Dr. Eastlake for calling the attention of the Society to the management of the third stage of labour, the proper treatment of which he had reason to fear was much neglected. He quite agreed with the author, that although most Practitioners chiefly engaged in the practice of midwifery are fully aware of the importance of preventing the too rapid birth of the child, and of making pressure over the uterus during, and for some time after, its expulsion, yet it was a rule not alluded to in books, and comparatively rarely acted upon in practice, the neglect of which led to many of those difficulties met with in the removal of the placenta. He was of the author's opinion, that adherent placenta was of very rare occurrence; but that its retention from the so-called hour-glass, irregular, or spasmodic contraction happened every now and then. He (Dr. Greenhalgh) did not approve of letting blood out of the funis, on the ground that the uterus did not contract so efficiently upon a lax as on a firm substance, and that, in event of artificial detachment being required, the ill-defined boundaries of the placenta would greatly complicate the case. He had never experienced any material difficulty in removing a detached placenta from the cavity of the uterus or vagina where removal was early had recourse to. He confirmed the experience of the author, that the same uterine contraction which caused the expulsion of the child frequently detached the placenta. As a rule, he should not feel inclined to delay the extraction of the placenta beyond the half hour, unless the labour had been very lingering, the uterus in a state of inertia, or the patient much prostrated, when he might be induced to wait an hour. In hæmorrhage, convulsions, inversion, etc., it might be necessary to proceed to the immediate removal of the placenta. Dr. Greenhalgh then drew attention to a case of placenta prævia, in which so great had been the loss of blood that the introduction of the hand in performing version, and subsequently for the extraction of the placenta, occasioned the most severe convulsions, in one of which the patient died. He strongly deprecated powerful traction on the funis, which might lead to irregular action or inversion of the uterus, laceration of the funis or placenta, etc. A considerable experience had convinced him that chloroform had not the slightest influence in delaying the expulsion of the placenta; on the contrary, its anæsthetic effects greatly aided the Practitioner in making firm pressure over the uterus, and thus facilitating its extraction. He had never met with a case of supplemental placenta. In conclusion, he thanked the author for directing his attention to the difference in the uterine souffle before and after the death of the fœtus in utero, of which, he stated, he had no experience.

Dr. Eastlake, in reply, said that he had listened with great interest to the remarks made by Dr. Greenhalgh. In answer to Dr. Palfrey, he said that gentleman had misunderstood that portion of the paper which referred to the time that should be allowed to elapse before extracting the afterbirth. An hour was the maximum period that he (Dr. Eastlake) would wait in any case of retention, and then only where a doubt existed as to the cause; but in the majority of instances the placenta might be removed within a quarter of an hour. He had had the pleasure of meeting Dr. Graily Hewitt at a case two nights ago, and he felt sure that that gentleman could testify to the ease with which he (Dr. Eastlake) had pressed off the placenta on that occasion.

Dr. Graily Hewitt could corroborate Dr. Eastlake's statement as to the effect of the pressure over the fundus uteri, unaided by traction on the cord, in expelling the placenta, having very recently witnessed it in the case to which he was called by Dr. Eastlake. He had himself been in the habit of depending chiefly on pressure on the uterus for expulsion of the placenta, although he also held the cord just tightly enough to ascertain where the placenta was and how it was moving. He believed Dr. Eastlake's paper would have good effect in more widely inculcating a practice which he believed to be good. With reference to the effect of direct pressure on the uterus in procuring expulsion of the placenta, he had observed an interesting fact: in one case where pressure had been used for nearly an hour unavailingly, the uterus suddenly and forcibly expelled the placenta when the organ was grasped, one hand at each side, just at the junction of the Fallopian tubes with the body of the uterus. It appeared in this case, at all events, that this part of the uterus was more susceptible than others. Possibly this fact might have an application in other cases.

METROPOLITAN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

The monthly meeting of this Association was held on Saturday evening, November 19, in the Scottish Corporation Hall, Crane-court, Fleet-street; Dr. Druitt, President, in the chair.

Dr. Whitmore, Medical officer for the parish of St. Marylebone, was elected a member.

Mr. Liddle again brought before the meeting the question of the water supply of the metropolis. He stated that Mr. Greaves, engineer of the East London Waterworks, informed him that the Company were most anxious to do all in their power to render him assistance in procuring for the poor localities of Whitechapel a pure and constant supply of water for domestic use. The New River Company had not acted with the same liberality. He moved a resolution to the effect that, in the opinion of the Association, as a constant supply of water could be furnished to almost every locality in London direct from the main, without waste, it was the only plan that should be adopted in poor and densely populated neighbourhoods; that cisterns and butts ought to be gradually abolished, and a simple economical apparatus substituted in lieu of them, whereby the poor at all times might obtain an adequate supply of water for domestic use; and that the Medical officers of health were bound to use their best endeavours to obtain a better supply of water upon the system of high pressure in their respective districts, wherever the same was practicable.

Dr. Aldis said the defective supply of water was not alone felt by the poor; in Belgravia it was a frequent source of complaint. On Sundays there was a constant deficiency, which had in some cases been partly remedied by the adoption of larger cisterns for the storage of that which was furnished on the previous day. In Westminster the want of water was truly lamentable.

Dr. Barnes said in his district the scenes in some of the courts on Sunday mornings were perfectly atrocious, owing to the distress occasioned through the want of water. He thought the companies would desecrate the Sabbath much less by allowing the water to be turned on on that day than by their refusal perpetuating the present state of things. If Mr. Liddle's proposition were adopted it would prove a great boon to all classes of the community, but especially to the poor, and it would have the effect of getting rid of the system of storage in house-cisterns, which was a most desirable thing. While making these statements, however, about the deficiency of the water, it must not be lost sight of that, as a rule, the poor were very careless and extravagant in the use of water. The company which supplied his district had acceded to his request—that the water should be turned on in some of the courts on Saturday evenings, on condition that the landlords immediately constructed larger cisterns.

Dr. Gibbon said he was afraid the great difficulty in the way of obtaining a constant service would be the enormous waste which the carelessness of the poorer classes would occasion. In fact, unless greater attention to the ball and other cocks could be enforced than was paid at present, every water-works in London would be run dry in forty-eight hours.

Mr. Beggs thought Dr. Gibbon had just indicated the real difficulty. He apprehended that the water companies only

needed to be shown that a constant service would be safe to induce them to adopt it. But the experience of the past led them to pause. It was stated by Mr. Bateman, the engineer of the Glasgow Water Works, that under that system at one time the inhabitants were consuming water at the rate of forty gallons per head per day, and he was fearful, even with the vast resources of Loch Katrine at his disposal, that he should not be able to continue it. The system at present in use in London was about as imperfect as that of any part of the kingdom, and the difficulties were enhanced by the enormous size of the metropolis, and the fact of there being nine companies engaged in the supply. If some appliance such as that which Mr. Liddle had referred to—the water-waste preventer—could be brought into general practice, the constant service was a system which would gradually but surely come into operation. The cisternage in London was a great evil. For the most part it consisted of old tubs and hogsheads, which, if water was to continue to be stored, ought to be replaced with slate tanks. People seemed to have got the stupid notion into their heads that water cost nothing, and need not be cared for. They forgot that the companies did not charge for the water, but for the expense of machinery for collecting, conducting, and distributing it, which was oftentimes very costly. It was hardly to be expected that the companies would do much in the way of improvement in the service while there was such an uninstructed public opinion on the subject.

After some further conversation, the consideration of the subject was adjourned.

Dr. Barnes then read a paper

ON THE MEANS OF LESSENING THE DANGER TO THE LIVING ARISING FROM THE RETENTION OF THE DEAD IN INHABITED DWELLINGS, AND ESPECIALLY FOR SECURING THE TIMELY REMOVAL OF THE DEAD.

He said no steps had yet been taken to prevent the propagation of infectious diseases by the retention of dead bodies among the living. The custom of postponing interments for a week or more after death; the exposure of the friends and mourners of the deceased to the putrefying influences arising from the dead body; the practice of removing to the homes of the poor the bodies of friends who have died in a public institution—these were fruitful sources of disease, in the latter case frequently importing it into localities where it had not previously existed. How could these evils be avoided? He did not propose the adoption of the French law, which compelled the burial of the dead in a few hours, for he believed that hasty interments would be resisted as an outrage against decency. But he did not see why, with the fullest measure of reverence for the dead, they should not have recourse to such sanitary regulations as would prevent the sad consequences which, especially in the crowded dwellings of the poor, too often resulted from the present system. The suggestion which he made was, that if the bodies of the dead were to be preserved for a week or more before burial, proper places for their reception should be provided. The establishment of mortuaries was of the first importance, and their establishment—as public institutions, but not as a part of the poor-law establishment—ought to fall within the sphere of the duties and charges of our sanitary administration. Their benefits should be extended to rich and poor alike. Mortuaries of this kind were in use in many towns in Germany. In the City of London Sewers Act there was a clause (the 89th) which enabled the Commissioners to provide a fit and proper place for the poor to deposit their dead in until interment, and the following clause empowered the Medical Officer of Health to order the removal of any dead body, from an inhabited house in the City, to this mortuary. He believed, however, that nothing had been done under these provisions. There was a power under the Disease Prevention Act, vested in the Privy Counsel, to issue orders during the prevalence of epidemic disease to the local authorities for the removal of the dead, but that enactment contemplated only an extraordinary and exceptional state of circumstances. Dead-houses were attached to most of the workhouses, but they were used for paupers only. Some of the railway companies had mortuaries for the reception of bodies intended for interment in the cemeteries on their respective lines. These were very inadequate, and the question was how far the evil might be met with the actual means at their disposal. Could they, where they apprehended that a dead body in a dwelling-house was injurious to the health of the inmates, proceed under the Nuisances Removal Act, and obtain an order from the magistrates to take it away? He thought they could if the Medical officer certified to the danger. This remedy, if practicable, fell far short of what was necessary. But further legislative power was needed—in the first place, to authorise vestries to provide dead-houses; secondly, to render it compulsory to remove corpses to such mortuaries upon a certificate that their retention in dwelling-houses was injurious to health; thirdly, to compel undertakers to use some antiseptic when called in to shroud the body; and fourthly, to forbid the removal of a dead body to an undertaker's premises without a special mortuary was provided for it, which should be certified by the Medical officer as a fit and proper place.

Dr. Letheby said it was true the City Sewers Act contained the provisions referred to by Dr. Barnes, and he had frequently been called upon by the Commission for advice on the subject. But so great were the difficulties in the way, that he had never felt at liberty to recommend their adoption. There would be a great unwillingness on the part of the poor to give up their dead, and he felt that he should bring his office into great discredit if he were to insist upon their removal. On the other hand, wherever parties were desirous of getting rid of their dead, and throwing upon the local authorities the cost of burial, they would be only too glad to urge him to put his office into execution. But he thought the difficulty might be got over in another way, which was by enforcing the use of disenfectants. He objected to the suggested injection of corpses with a solution of zinc or lead, as the practice would tend to defeat the ends of justice in cases where subsequent inquiries led to the belief that the deceased had been poisoned. The use of sawdust, impregnated with solution of sulphate of zinc, was popular in France about dead bodies, and there was no doubt it had the power not only of absorbing the gases which were evolved, but also of arresting decomposition. At the same time, as sulphate of zinc was often combined with arsenic, the objection to it in a Medico-legal point of view remained. Powdered charcoal placed about the corpse was far more powerful as a disinfectant, and less open to objection than any poisonous material.

Dr. Ballard, Dr. Aldis, Mr. Burge, Dr. Sanderson, and others, took part in the subsequent discussion.

At the request of the meeting, Dr. Barnes agreed to draw up a resolution to submit to the General Purposes Committee, with the view of indicating what steps might be very advantageously taken by the Association towards expediting the burial of the dead.

Thanks having been voted to Dr. Barnes the proceedings terminated.

EPIDEMIOLOGICAL SOCIETY.

Monday, November 7.

Dr. Milroy, President, in the Chair.

This, the opening, meeting of the session was chiefly occupied by an address from the President on some of the leading objects of the Society, and more particularly on the topography and geography of epidemic and certain endemic diseases. While the chief object of the other Medical Societies of the metropolis is the investigation of the physiological, pathological, and therapeutic relations of diseases, that of the Epidemiological is specially the study of their ætiological or causal relations, and the influence of locality, climate and season, diet and occupation, etc., on their rise, dissemination, and continuance. Diseases are looked at not so much in detail as in the aggregate—not in individual cases, but in groups and successions of cases—and not in one place only, but over wide and varied areas of observation, so as to embrace all countries and peoples. It thus seeks to be truly an international society. The Medical topography of our own country has hitherto received very little attention, although a subject obviously of great importance and interest. To take one example, that of the prevalence of ague in different parts of England. In the seventeenth century, intermittent and remittent fevers often raged in the metropolis "like a plague." Both James I. and Cromwell, not to mention many other men of note, died of the fever. It continued endemic in London until the latter half of last century; the Southwark side of the river always suffered much more than the north side. During the present century there has been a striking decrease both in frequency and in severity of the disease throughout England generally, as the drainage of the

land has progressed. The localities still chiefly infested are the Isle of Sheppey, parts of Essex, Cambridgeshire, Norfolk, and Lincoln; every year as agricultural improvements advance, the prevalence of ague diminishes. Scotland, according to Dr. Christison, is now all but exempt, although up to the beginning of the present century the malady was anything but uncommon in the southern counties. In Ireland, too, there is very little ague in the present day. One of the most remarkable features of the Medical topography of Ireland is the widespread prevalence of ophthalmic disease from an early period down to recent years, as appears from the invaluable reports of Sir W. Wilde on the status of disease in 1851 and 1861. A highly interesting fact connected with the topography of Scotland is the comparative immunity of the resident labouring population in Mull, Lewis, and other of the western isles from pulmonary consumption, according to what appears to be reliable evidence. The influence of different climates on the development of phthisis is a subject of the deepest interest, and has not yet been investigated on a sufficiently comprehensive plan. Much might be done to establish and to carry out inquiries illustrative of the Medical topography of this country by such associations as that of the Metropolitan Officers of Health in respect of London and its environs, and by the British Medical Association, with its numerous and scattered machinery of action, in respect of England generally. Systematic and continuous observation and record in this field of research could not fail to be productive of much good. In our colonies, too, a topographical examination of the sites of the principal towns and military stations is urgently needed. Bermuda, recently so disastrously visited by yellow fever, has been the seat of four successive invasions of the pestilence within the last twenty years; and, from what is already known, there seems to be no doubt that local conditions have much to do with its recurrent malignancy. Hong Kong is another instance of the necessity for such inquiries. The terrible unhealthiness of this colony for several years after its occupation is well known. Of recent years the health condition of the civil population appears, from the late reports of the Governor to the Colonial Office, to have been decidedly improving; but the same cannot be said in respect of our troops. How and whence is this difference? Full and accurate examination on the spot can alone throw light upon the subject. But of all fields for Medical topography none can vie in point of extent, variety, and importance with our possessions in India, and when the large number of Medical officers scattered over this wide region is remembered, what an amount of most valuable information might be easily obtained! The geography of diseases is but an expansion of topographical medicine. Certain endemic and epidemic diseases exhibit a remarkable diversity in their geographical range, or distribution over different regions of the world. The great work of Dr. Hirsch, of Dantzig, "Handbuch der Historico-Geographischen Pathologie," dedicated to the Epidemiological Society, contains a vast amount of most interesting details on this head. Few Medical men are aware of the extent to which such a disease as gôitre exists over the globe, and that the valleys of the Himalayas and of the Andes are as much infested with it as those of the Alps in Savoy and Switzerland. Neither are they aware that the true leprosy is in the present day so widely spread in very many countries, both of the old and new hemisphere, as it really is. Another object aimed at is the determining the geographical prevalence of an epidemic disease in any given season or year over wide regions, either of one continent or of different continents. Accurate information on this subject, and set forth in diagrams and on outline charts, would cast much light on the natural history of such a disease, and would, moreover, serve to correct many prevailing notions as to the mode of its diffusion, and the proper means for its prophylaxis or prevention. Lastly, there is the highly interesting object to ascertain and note the course or career of a moving migrating epidemic—as, for example, influenza and the malignant cholera—step by step, and stage by stage, across different countries and continents, until, as on some occasions, the round world has been girdled by successive advances, generally from east to west. For the successful prosecution of such inquiries as those now indicated, the active co-operation of Medical men, not only at home, but in all our colonies and possessions abroad, as well as in foreign countries, is of course necessary. The Medical officers of the army and navy enjoy singularly favourable opportunities for the study of epidemic diseases in the most varied regions and climates. Our Professional brethren in the colonies and in India could also afford the most valuable assistance. It is only by widely-extended and combined action directed to one common object that many important problems in epidemiology and the science of public hygiene can ever be satisfactorily determined.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, OCTOBER 20.

W. ADAMS, Esq., President.

ABNORMAL PULSE.

Dr. DRYSDALE mentioned two cases of abnormal pulse, one 36, the other 140—160, occurring in individuals aged respectively 50 and 38. In neither was there any lesion of heart or lungs.

Mr. TIMES mentioned a case where ɱv. of vin. colch. t. d. had reduced the pulse to 20 in a minute. Patient recovered, the medicine being abandoned.

The PRESIDENT mentioned that a Hospital Surgeon in London had habitually a pulse under 30 after a fever in the Crimea. He suffered from cold, and could not take stimulants.

Mr. SEDGWICK mentioned a case where, in sciatica, the pulse had gone down to 43 from being usually 78. Napoleon I. had a pulse of 45.

Mr. CURGENVEN observed that in some cases of pressure on the pneumogastric nerve the pulsation of the heart was very rapid. Two sisters, patients of his, had pulses of 118 and 120. It was important to be aware of such idiosyncrasies.

Mr. J. Z. LAURENCE remarked that some individuals had a peculiar pulsation in the retinal veins.

Dr. GRAILY HEWITT mentioned the case of a young lady whose pulse was continually 120.

Mr. WM. ADAMS read a paper

ON THE RESTORATION OF MOTION IN CASES OF PARTIAL ANCHYLOSIS, OR STIFF JOINTS, BY FORCIBLE EXTENSION UNDER CHLOROFORM.

The author commenced by adverting to the history of the operation before and since the introduction of chloroform, and alluded especially to Langenveck, the late Bonnet, of Lyons, P. Frank, Skey, Paget, Erichsen, etc., who, amongst English Hospital Surgeons, had more recently adopted the operation. Mr. Adams' first cases were treated, in conjunction with the late Mr. Lonsdale, at the Orthopædic Hospital in 1854 and 1855, and were described in the author's work "On Subcutaneous Surgery," published in 1857. Since that time he had adopted the practice in a large number of cases, and one point to which he had especially directed attention had been to determine the particular class of cases to which the treatment is applicable, and those in which it is either attended with danger, or would probably fail in its object of restoring motion. These points were therefore chiefly discussed in the present paper. The author then made some observations on the constitutional conditions upon which diseases of the joints depended, or with which they were generally associated; and with reference to the treatment by forcible extension, he arranged all cases of anchylosis, or stiff joint, in three classes, viz., 1stly, the strumous; 2ndly, the rheumatic; and 3rdly, the traumatic. With regard to the first class—the strumous—the result of the author's experience had been to prove that they are decidedly the most unfavourable for the treatment by forcible extension; and he had determined never to repeat the operation in any case belonging to this class unless it should be of a very exceptional character, and present unusually favourable conditions. Where the cartilages are destroyed, as they generally are, to a greater or less extent, in the strumous diseases, a stiff joint is the best possible result. Forcible extension may produce serious inflammation; and, even if some motion be gained at the operation, it will be subsequently lost, and stiffening return. Several cases in illustration of these points were given by the author, and a few favourable and exceptional cases were also mentioned. With respect to the second class—the rheumatic—the results of the author's experience had been just as favourable as they had been unfavourable in the strumous class. In a large proportion of cases of stiff joint, or anchylosis, occurring in young adults after rheumatic fever, or as the result of gonorrhœal rheumatism, free and useful motion may be restored by forcible rupture of the adhesions and thickened ligamentous tissue. The author believed that the

articular cartilage always remained healthy in these rheumatic cases, and that the great pathological peculiarity of the rheumatic form of inflammation, in whatever organ or tissue it occurs, is a remarkable indisposition to suppuration or the ulcerative process. The author had never seen suppuration occur as the result of rheumatic inflammation, and when it does occur, as a rare event, the case is probably one of a mixed character, and not purely rheumatic. The tendency of rheumatic inflammation is to the adhesive form of inflammation; so that it produces adhesions and thickening of the ligamentous tissues of the joint; but neither suppuration nor ulceration occurs. In the third class of cases—viz., the traumatic—the results of forcible extension are also generally very favourable, although more uncertain, and on the whole not quite equal to the results obtained in the rheumatic class. Several cases illustrating the successful results of forcible extension permanently restoring useful motion in the rheumatic and traumatic classes, were then detailed by the author.

Docteur Beck mentioned that he had successfully broken down anchylosis in the elbow joints of the rheumatic kind, although these were more difficult to treat than the anchylosis of the joints of the lower extremity. Pus occurs, he remarked, in the pleura in cases of rheumatism.

Dr. Allen had seen pus in a shoulder-joint; but perhaps it was secondary deposit.

Mr. Laurence believed pus was never formed in rheumatic affections. In sclerotitis of rheumatic form he had not seen pus.

The President corroborated this remark.

Dr. Camp thought that most pathological laws had exceptions; and, as pointed out by Séquard, rheumatism and neuralgia were often confounded.

Mr. Sedgwick asked whether anchylosis of the finger-joints in old people should be broken up.

The President said these cases did better by using a tenotomy knife, and then a straight splint.

WESTERN MEDICAL AND SURGICAL SOCIETY.

Friday, October 21.

Mr. George Pollock, President, in the Chair.

The President, after a few introductory observations, it being the first evening of the session, read a paper

ON THE RELATIVE ADVANTAGES OF PUNCTURING THE BLADDER BY THE RECTUM, AND PERINEAL SECTION FOR THE TREATMENT OF IMPERVIOUS STRICTURE.

Without going into the history of the various operations for impervious structure, Mr. Pollock said he would confine himself to a comparison of the two mentioned in the title of the paper. Neither ought to be had recourse to except in those cases in which the catheter cannot be passed, in which the patient cannot evacuate the bladder, in which the urine escapes in dribblets, or incontinently and continuously, and in which the patient has recurring attacks of retention, relieved by constant recurrence to opium or the hot bath, and in which disease of the urinary passages and kidneys is threatening or developed. Now, when the ordinary means of treatment fail—and they should always be first thoroughly tried—we have for the impervious stricture three alternatives. "The first I allude to only to condemn it: I mean the forcible passage of the catheter into the bladder." It is always confusing, uncertain in effect, and no catheter should be used for this purpose. Many disasters also may, as post mortems reveal, attend this operation. The other alternatives are perineal section and puncturing of the bladder. The first of these requires much care and correct anatomical knowledge; and as the membranous portion of the canal is usually in retention detected behind the stricture, it is preferable to cut into it and pass a catheter into the bladder, and then to unite the posterior pervious portion with the anterior healthy portion by cutting through the stricture. Among the difficulties of this operation the urethra may be missed in cutting down to it. This has been known to happen to the most experienced Surgeons. In this operation there is always some, and often considerable hæmorrhage; at times it is even excessive. Another possible evil is, that the wound may never heal, but become fistulous, although a free proper passage through the urethra may be restored. The author differed from Mr. Cock about the importance of the tracing out of the stricture: even at the deadhouse it is at times very difficult to do so; and there is no objection to a part of the urethra being formed out of new tissue. For one set of cases only did the author consider perineal section preferable to puncturing the bladder—namely, for inveterate and unyielding strictures in young men the result of laceration of the urethra from injury, when extravasation of urine takes place, and often a large portion of the urethra is destroyed by slough. There seems no alternative in such cases. There is, moreover, generally a healthy state of urinary organs, and the constitution of the patient is not generally impaired. In these cases the stricture is the result of destroyed tissue from laceration, and no cases are more difficult to relieve by the use of catheters without division of the stricture. In these cases the retention is not from spasm, but the result of the slow, unyielding contracted cicatrix. But for the greater number of cases of impervious stricture, the author believes puncture of the bladder to be the preferable operation; and as being the most simple and effectual, the author recommends puncture by the rectum. In his own hands, the operation had been most satisfactory, both in stricture threatening to induce kidney disease and in retention. The catheter should be fastened in with great care, and kept in some time, the patient remaining on his back. Nor is it injurious if kept in for some weeks; and for some weeks also it is as well to keep the urethra quiet; and at the end of that time the Surgeon will rarely fail to pass a catheter through it into the bladder. It is then wise to keep it there for a week or ten days; and after that occasionally, according to the tendency to return. When we compare the difficulties and dangers of the one operation with the simplicity and safety of the other (puncture by the rectum), it would not be a bad rule for Practitioners to adopt the latter in every case of retention dependent on stricture rather than that an inexperienced operator should have recourse to perineal section. When it is considered that the one operation is always difficult, sometimes unsuccessful, always attended by bleeding, often by excessive hæmorrhage, always requires the aid of assistants, and must be performed in a good light; is followed by much discharge, and often abscess or pyæmia, and that the stricture, when thoroughly relieved, has usually a tendency to recur; when, on the other hand, puncture of the bladder through the rectum is simple, expeditious, relieves thoroughly, occasions no loss of blood, no local mischief, and equally with perineal section relieves the stricture, and that it is adapted to all cases except laceration of the urethra and its consequent strictures—we may fairly conclude that as a general principle for the relief of impervious stricture or for retention of urine in such cases, puncture of the bladder is the rule, and perineal section the exception.

After the discussion on the paper, some coloured photographs of skin diseases were exhibited by Dr. B. Squire.

OBITUARY.

PETER CHARLES PRICE.

Were we as constantly in the habit of measuring life by its results as by its duration, it is a question whether the senior ranks under the two standards would be filled even by a majority only of the same names. It is certain that there is a sense in which it is quite possible to live a long life in a short time. Just as a week of autumnal travel, in which each day was marked by a fresh scene or a new acquaintance, seems on looking back to occupy a far greater space in our history than the six months through which we subsequently hybernated, or as an hour of varied emotion or concentrated thought, or even of hard exercise, appears longer to our consciousness than a night of sleep, so the three-score years and ten of ordinary existence must fall far short of the life tenure of such men as Pascal or Bichât. As age advances it is a common observation that days, months, and years seem to grow shorter. The reason is in ourselves. We are no longer able to crowd into the hour the same amount and variety of observation, idea, action, and sensation which we formerly did. The truth is so obvious that it is found underlying our commonest forms of speech. To energy and genius we freely accord the merit of having "found leisure" or "made time" for accomplishing things unimagined or unhoped for by men of inferior power and will.

Measured by its results, few men in the Profession of Medicine have lived so long a life in thirty-one years as Peter Charles Price. From the date of his admission as a member

of the College of Surgeons to the time when his career in London was arrested by the disease which proved ultimately fatal was but six years; yet within a period so short that it scarcely suffices ordinary men to cast the chrysalis sheil of the student, he contrived to leave a palpable impression on English Surgery. Time only can show how lasting that impression will be; but this is certain, that whilst one of his colleagues in private or public practice lives, the remembrance of that active, acute intelligence, that dexterous, unerring hand, and that kindly heart will not die.

Born on December 29, 1832, at Margate, where his father has for many years deservedly enjoyed a leading practice, he was placed when a boy at a large boarding-school at Ramsgate known as Chatham House. There he obtained the valuable groundwork of a liberal education. But it is doubtful whether the Spartan system of training which was then in vogue at this as well as most other schools, was well suited for a child who, like Price, was delicate from his babyhood. The boys were roused at six in the morning, and were kept at work early and late. The mental culture, however, bore good fruits. Price throughout life possessed a high relish for general literature, poetry, and the *belles lettres*, and his powers of conversation, sustained by a well-stored memory, and brightened by his naturally playful humour and his keen appreciation of the ridiculous in men and things, rendered him a most fascinating companion. At school he was a great favourite with his master. The latter was first attracted to him by noticing his care and kindness to a younger brother, and he soon discovered the industry and honesty of purpose which distinguished him in after life. But he had another school at home. Dr. Price was not one of those fathers who think that when they have given their boys what is usually called a good education, be it classical, mathematical, or commercial, they have done their part to ensuring future success. He sought to train all their faculties. He early accustomed his sons to use their hands. He gave them a room, where they might cut, and carve, and saw as they pleased, and their amusements were superintended by an old servant who was by trade a carpenter. This was admirable training for the future Surgeon, and in after life Price used to declare that he owed much of his mechanical dexterity as an operator to the lessons of his boyhood. Those who knew him at all intimately, and recollect the vivid exactness with which, when he pleased, he could re-produce the tone, gestures, and accents of others, who have heard him "give" a Professor's lecture, or even rehearse an ordinary conversation, will be prepared to learn that he was a mimic from childhood, and the gravity of many a guest at his father's table has been sorely tried by the laughter-compelling powers of the delicate, fair-haired youngster who sat opposite him.

On leaving school he determined to devote himself to the profession of Medicine. In 1849 he came to London, and entered at the Royal College of Chemistry, where his brother, Dr. David Price, was then Assistant-Professor. Here he obtained a considerable knowledge of the theory and practice of the science which is daily becoming of greater importance in the art of healing. We think that the effect of his early chemical studies was manifest both in his writings and practice. Several new chemical remedies, such as the iodide of ammonium, phosphate of iron and lime, etc., were, if not introduced, prescribed extensively by him before their use had become general. He never lost sight of the great physiological truths which his former chemical studies had taught him. He never sank to the level of a mere mechanical operating Surgeon. In the treatment of his cases the reparative powers of Nature were ever uppermost in his mind, and his writings on scrofula prove that it was his constant aim to supply or increase those elements of nutrition which, as a chemist, he knew must be the *sine quâ non* of success.

In the following year he commenced the study of Medicine at King's College. That in his student days he must have worked hard his after career affords ample proof. He chose for his intimates the best men of his time, and the basis of his life-long friendship with Henry Smith, George Lawson, and A. M. Edwards was then laid. His practical bent soon became evident. In the Session 1852-53 he won the prize in Clinical Surgery, and he soon drew the attention of Mr. Fergusson, who, by the freemasonry of talent, recognised in him a worthy pupil. He was chosen to accompany his teacher on his rounds and to assist him at capital operations; and, after passing the College in 1854, Price became the constant assistant of the great Surgeon, in his absence supervising and taking charge of his most important cases. The labour this entailed was undoubtedly very great; but Price gladly undertook it, well knowing that by no more fortunate road could he enter practice. The friendship and countenance of Mr. Fergusson, and the advantage which their close connection gave, determined him to relinquish the idea of joining his father at Margate, and to attempt the more ambitious and arduous career of a Consulting-Surgeon in London. He early turned his attention to conservative Surgery, especially to the preservation of limbs by the excision of joints. Having obtained the appointment of Surgeon to the Metropolitan Infirmary for Sick Children at Margate—an Institution to which most of the London parishes send their delicate and scrofulous children—he became at once possessed of a splendid field for practice. Chronic disease of the knee-joint is unfortunately only too common amongst the underfed children of the London workhouses; and Price soon found cases which offered a good chance of cure by resection. The *Lancet* of September 6 and 15, and of October 25, 1856, contain some of his first successful cases of excision of the knee. In the number for January 24, 1857, there is a communication by him containing an account of another case of resection, with remarks on the mechanical treatment of the limb after the operation, and later in the year he read an essay on the same subject before the Medical Society of London. He also contributed in 1857 a series of papers on excision of the knee to the *Medical Times and Gazette*. He afterwards collected and published these various papers under the title of "Contributions to the Surgery of Diseased Joints, with especial reference to the operation of excision; No. 1, the Knee." It is not for us in the present place to pronounce on what will be the ultimate fate of the operation of excision of the knee, although successful cases have now been multiplied, but we may fairly point to the extraordinary talent, zeal, and enterprise which Price, a young Surgeon of but two or three years standing, threw into the subject. In reading these papers one is struck not only by the practical genius displayed—the acuteness of his observation and his mechanical dexterity, but by the self-reliance of his character. The confidence he felt in his own powers he had in a remarkable degree the faculty of impressing on others. The writer of this sketch well recollects witnessing Price's management of a case in private practice. It was one of a diseased knee-joint in a child, which had resisted a variety of Medical and Surgical treatment. His examination was careful, but very rapid; he addressed a few pertinent questions to the friends, and then laid down a clear and decided line of treatment in two or three pointed, unmistakable sentences. "How completely he seems to understand it—what confidence he gives one," was the remark of the child's father at the termination of the interview.

Soon after commencing practice he became Surgeon to the Blenheim Dispensary, and afterwards Surgeon to the Great Northern Hospital, at that time but recently established at King's-cross. As an arena the little Hospital was of immense advantage to Price, and the reputation he gained there was doubtless of equal advantage to its early fortunes. Although the surgical staff numbered such Surgeons as John Gay, William Adams, and George Lawson, Price's talents gave him a prominent position amongst his colleagues. Many a time was the little operating room filled with spectators of his brilliant operations. "It's no use my coming here—I can't teach you anything," was the admiring comment of a bald-headed Hospital don who had witnessed one of his lithotomies. It was at the Great Northern that Price achieved the unique surgical feat of successfully performing the operation of lithotomy on the same individual on three different occasions. It was there also that he removed fourteen stones by the same operation from the bladder of a man aged 72. The accounts of these operations all appeared in the Medical journals of the time. In January, 1858, he published a case of excision of the knee-joint for rectangular anchylosis of ten years' standing, and in the following March a successful case of excision of the head of the femur. At the end of the London season of 1856 he had taken a trip to Paris, and had spent some weeks in the wards and operating theatres of the Paris Hospitals. We may say that the result of his observation of French Surgery did not leave him dissatisfied with the teachings and practice of his own school. But his acute perception seized certain points of French practice, to which he determined to give a trial on his return. One of these was the use of M. Chassaignac's drainage tubes, and in February, 1859, he published a paper on the use of the drainage system in the treatment of abscess. Our space will not allow us to

give in full the references to all the clinical reports he furnished to the Medical journals in the years 1859-60. It must suffice to say that they included three cases of successful excision of the hip, five of excision of the knee, and an account of an instrument for examining the base of the tongue and epiglottis, together with the reports of the lithotomy cases before referred to. His reputation as a Surgeon was now fully established in the Profession, and private practice began to increase. He married, and his prospects of happiness in life and Professional success, were they painted in the most glowing colours, would not exceed the reality. But his ardent nature was preparing to engage in undertakings for which his already-overtaxed physical power was entirely insufficient. The Royal College of Surgeons had announced as the subject of their Jacksonian prize for 1860-61 the following title:—"A Description of the Diseased Conditions of the Knee-joint which require Amputation of the Limb, and those Conditions which are favourable to Excision of the Joint; with an Explanation of the Relative Advantages of both Operations as far as can be ascertained by cases properly authenticated." It was no vanity on the part of Price which led him to believe that if any man was entitled by experience to compete for the prize of such an essay it was himself. With his wonted energy he threw himself into the work. He sacrificed his leisure, and even his rest, to it, and he produced an essay on excision of the knee-joint which, for the fulness with which the subject is treated, the vast number of facts brought together, the beautiful preparations, drawings, and photographs which accompanied it, is unequalled in the records of conservative Surgery. It is now a matter of history that, although no other essay was offered, this most elaborate and original work was rejected by the Committee appointed by the Council of the College of Surgeons to adjudicate the prize on, as was reported, formal or technical grounds. Price's essay now lies before us; and comparing its scope and character with the subject-matter proposed by the College, we are bound to confess that it is rather a treatise on his favourite operation than a thesis adapted to the College title. Still, let it be examined by any impartial judge, and be weighed by its intrinsic merits, and it must be pronounced worth a sheaf of the laurels annually bestowed by the Council. Acknowledging as we do that the decision of the Committee was justified by the letter, if not by the spirit, of their announced regulations, we are bound to assert that, deeply as Price felt his disappointment, the great losers by the transaction were the College of Surgeons and the Profession at large. It is quite possible that the umpires may have held views differing from those of Price on the value of excision of the knee. But this did not justify them in overlooking the worth to Surgical science of the facts of his essay gathered from all sources, substantiated by photographs, and carefully compared and tabulated. Never before had such a mass of clinical observation on the subject been brought together. Not only British practice, but Germany, France, and Switzerland had been made to contribute their quota to Price's results. We think it is a matter deeply to be regretted that a narrow feeling of obligation to a mere verbal form should have been permitted to deprive the Archives of the College of a work which marked an onward step in Surgery, and the Profession of a mass of evidence on a most important point of practice which had never been before collected; especially when we remember that by awarding the prize to Price's essay, and overstepping their literal trammels, the Council would have done harm or injustice to no one, for there was no other competitor. In this case they appear to have acted with singular want of sagacity, for the publication of Price's essay might have been fairly expected to redeem their prize from that character of an "unchallenged passport to oblivion," which common observation has fastened upon it.

We have said that Price keenly felt the disappointment, which was doubly bitter from following immediately after his marriage. His, however, was not the nature to brood over it, and but few of his friends ever heard him mention the subject. In the spring of 1860 he published a work on "Scrofulous Diseases of the External Lymphatic Glands," the subject-matter of which had already appeared in the form of essays in the *British Medical Journal*. This book contains the results of his large practical experience at Margate. He soon after competed for, and obtained an Assistant-Surgeoncy at King's College Hospital. As is usual in London Hospital elections, there were various candidates in the field, each having their own party and their own friends in the electing body. Price's paramount claims, however, overrode all opposition. But the anxiety which the contest gave him, coupled with the mental shock which he had so lately experienced, told visibly on his health. Probably the work entailed by his new duties at King's College Hospital proved "the last straw." In the summer of 1861 decisive evidence of tubercular disease declared itself, and this was accompanied by a prostration of strength rarely witnessed in the early stage of phthisis. In the autumn his friends determined to remove him to Mentone, although his weakness was so great that it was feared he would never reach his destination. At Paris he was so ill that his life was despaired of; but with the indomitable spirit which in everything distinguished him he determined to push on. The effect of the genial air of Lyons was a new draught of life to him; he rallied, and reached Mentone, where through the winter he rapidly progressed in strength, and was even enabled to engage in practice. In the following spring, however, he returned to England; and whilst with his friends at Margate he was seized with hæmorrhage, and a relapse ensued, which confined him the whole of the summer. During his confinement he employed part of his leisure in writing an account of the climate of Mentone, which appeared in the pages of this journal, and afterwards was published by him in a separate form. He again left England in the autumn of 1862, and reached Mentone, but on this occasion he did not obtain the same benefit which his former journey had afforded. He endeavoured to practise, but he was so manifestly unequal to fatigue that his friends insisted on his relinquishing work altogether. The climate, too, of Mentone, in the winter 1862—63, proved exceptionally ungenial, and it was but too clear that his disease had received no check. He removed to Bellagio, on the Lake of Como, in the summer of 1863, and the subsequent year was passed at Mentone, Fontainebleau, and Compiègne. In the summer of the present year, feeling, doubtless, that his end was approaching, he, by an extraordinary effort for a man in his condition, reached England. Our readers are aware of the rest. Three months were passed at St. Leonards, and thence, at his own wish, he was removed to Ventnor, where he died on November 13, 1864.

We have devoted so much of our limited space to tracing Price's Professional career that we have left ourselves but little in which to gather up the scattered threads of narrative into a summary of his character. As a Surgeon his genius was eminently practical, his powers of perception and observation seldom surpassed, and he possessed in a marked degree the intuitive faculty of recognising the possible. His devotion to his patients knew no bounds. In failing health, early and late, he was at their side, and bystanders were tempted to attribute something of his success to the confidence which his cheery address and bright smile inspired. As an operator, his boldness was only equalled by his skill. Throughout his protracted illness his heart was in the science he had loved "not wisely, but too well." As a man, he was generous, kind-hearted, self-denying, patient, and pre-eminently charitable to the faults and foibles of others. Few men have the same power of attaching to themselves others as had Peter Charles Price, and we may add, few men were more capable of self-sacrifice and devotion to interests not their own. The last work he did, when in a condition of weakness which rendered him incapable of rising without assistance, was to revise for press a paper which had been sent to him by a Professional acquaintance. Throughout his long illness, the painful and trying character of which only those who watched him can know, not a word of fretfulness or complaint escaped him. Sustained by the highest hopes, he "fell on sleep," leaving on his part not an enemy behind him, and for friends all who knew him.

Population of Algeria.—According to the last census in 1861, this consisted of 192,746 European and 2,760,948 indigenous inhabitants. If to these be added the army of occupation (63,000) and 118,430 individuals made up of the inhabitants of Hospitals, schools, prisons, convents, and indigenous inhabitants who repair temporarily to the various towns, we have a total of 3,062,124, being an increase of 470,679 since the census of 1856, 33,444 of this increase being constituted by Europeans. In the towns and suburbs of Algeria there were in 1861 579,910 European and indigenous inhabitants, distributed among 98,141 families, and inhabiting 41,326 houses. Of the 579,910 there were 301,385 males (single 164,499, married 131,537, widowed 4850, divorced, natives, 499) and 277,925 females (single 127,840, married 133,460, widowed 15,842, divorced, natives, 773).

THE NEW INDIAN SCHEME.

Military, No. 340. INDIA OFFICE, London, November 7, 1864.

To His Excellency the Right Honourable the Governor-General of India in Council.

SIR,—Para. 1. In continuation of my Despatch, No. 152, dated May 16, 1864, and with reference to your reply thereto, No. 242, of June 29, 1864, I have now the honour to communicate to your Excellency the decision at which her Majesty's Government has arrived regarding the future establishment of Medical officers for service in India.

2. In a Despatch, No. 82, dated March 12, 1862, the late Governor-General in Council recommended the formation of an amalgamated Medical service for the united army of Great Britain and India, and expressed his concurrence generally in a scheme for carrying out such a measure, embodied in a memorandum by Colonel Norman which accompanied that Despatch.

3. A very important feature in the working of that scheme was the unavoidable removal of Medical officers from employment in India after a limited number of years' service in that country, whatever their employment might be.

4. I was apprehensive that this might be attended with serious inconvenience, but, after much and careful consideration of the subject, I resolved to submit the proposal, with some slight modifications, for the concurrence of the Secretary of State for War.

5. I forward for your information the correspondence which has taken place upon the subject, by which your Excellency will perceive that Earl de Grey objects to the scheme mainly on the following grounds :—

1st. That the employment of British Medical officers for limited periods in civil situations in India would put a stop to the continuous military training secured under the present system of the Army Medical Department, and considered by him to be essential to the efficiency of the service ; that officers so employed might acquire habits of independence inconsistent with a due performance of regimental duties, and would have to return to a regiment at an age when men in general do not easily bend themselves to the practice of subordination required from a regimental officer of inferior rank.

2nd. His time, it is stated, would have been spent in treating diseases different to a great extent from those of soldiers, and he would have acquired no experience and have had no occasion to practise that most important part of his duty as an Army Medical officer, the prevention of disease. He would, in short, not be the officer whom the existing organisation of the Medical Department of the British Army contemplated, and whom it is the object of the costly and elaborate system recently established to provide for the Army.

3rd. Earl de Grey further asserts that "regimental duties with native troops are at present of a very different nature from those required in British regiments, and would not afford Medical officers the training and experience which the new organisation has rendered essential ;" and lastly, his Lordship observes, that if the amalgamation were once carried out on these principles it would be extremely difficult, if not impossible, to abandon them hereafter, whatever might be the result.

6. In my reply I explained to Earl de Grey and Ripon my reasons for not being able to concur in the objections offered by his Lordship, but as I felt satisfied that those objections had not been lightly entertained, I felt that it would be useless to press a reconsideration of the subject.

7. It was further obvious from the correspondence that any plan involving the withdrawal for a time from their regular duty of the officers of the Army Medical Department would be liable to objection on similar grounds, and her Majesty's Government directed their attention, therefore, to the possibility of providing for the future demands of the Government of India by the formation of Medical staff corps for each Presidency.

8. In order to obtain for the Medical service in India the advantage of having its officers drawn from the same source, and having passed the same examination as those of the British army, and with a view of placing them on a footing of perfect equality, by obliterating as much as possible all distinction between the bodies of officers so employed and those of the British army, it was proposed to form the several staff corps by means of Medical officers of her Majesty's service volunteering to join them.

9. With this view, however, it became necessary to obtain the sanction of Parliament to the repeal of that part of the Act of the 16 and 17 Vict. cap. 95, sect. 37, which prescribes the manner in which Medical officers shall be provided for employment under the Government of India.

10. Her Majesty's Government having failed to obtain the consent of Parliament to a measure proposed with this view, it became necessary to give up the scheme of a Medical staff corps, as proposed, and to revert again to the system of an entirely separate service, as heretofore.

11. The changes which have been recently made in the amount and composition of the military force in India, the transfer of the whole of the European troops to the British army, and the reduction of the native force, render necessary a corresponding reduction in the establishment of Medical officers serving under the local Governments, as well as some change in the nature of their employment.

12. One of the objects aimed at in the contemplated union of the British and Indian Medical service was the abolition of the double administrative staff in India. This advantage would have been unattainable on the formation of Medical staff corps, and is equally so in the continuance of a separate service as now proposed.

13. It is obvious that a single Medical staff for all India is only compatible with one amalgamated Medical service, and that the objections advanced by the Secretary of State for War, and which have proved fatal to the scheme of amalgamation, must apply with even greater force to any plan that would involve the indiscriminate employment of officers from either service in the supervision of both.

14. The evils that have resulted up to the present time from the employment of a double staff will, it is believed, disappear when the duties of the officers of the two services shall have been entirely separated. The sole objection to such double staff will then consist in its expense. This, I apprehend, will, on a re-adjustment of the local department of inspection with a view of meeting the altered condition of the service, be found susceptible of considerable reduction.

15. Her Majesty's Government have, therefore, determined that the duties of the Medical officers of the British army serving in India shall in future be kept wholly distinct from those of the Medical officers of the Indian establishment, and that there shall be a separate administrative establishment for each.

16. Under these circumstances it will be necessary that the administrative establishments in the several Presidencies should be revised, and the duties of the several Medical officers of the higher grades re-distributed, and I request that you will take the subject into early consideration, with the view of determining the numbers of Inspectors-General and Deputy Inspectors-General of each service that will be required to conduct the administrative duties of the respective services in each Presidency.

17. In my despatch, No. 152, I authorised your augmenting the number of officers above the rank of Assistant-Surgeon :—

In Bengal to	152
In Madras to	86
In Bombay to	69

leaving the aggregate establishment of Medical officers in each Presidency the same as before.

18. That establishment is at present as follows :—

Bengal	425
Madras	243
Bombay	193

19. You were informed in my despatch, No. 291, dated August 8, 1863, that the War Office would take measures for relieving, as soon as possible, the Assistant-Surgeons of the Indian Army from the brigades of Artillery and new Line regiments ; and the same course will hereafter be adopted as a necessary consequence of the transfer of those regiments to the British Army in regard to the Surgeons. A reduction in the establishment of Medical officers required for service in India will necessarily follow ; and I request that the subject of the number likely to be required henceforward in the several Presidencies may receive your early consideration.

20. In making this calculation you will, of course, take into account the several situations which may be properly filled up by uncovenanted members of the Medical Profession.

21. It is believed that, in consequence of all appointments to the local service having ceased during the last three years, the aggregate number of Medical officers at present borne on the strength of the several Presidencies will be, if anything, below the prospective wants of the service ; but I shall make arrangements without delay for filling up vacancies as they may occur on your revised establishment.

22. The promotion of Assistant-Surgeons who may hereafter enter the Indian Army will be regulated by length of service, and not, as heretofore, by succession to vacancies in a fixed establishment of officers of the higher grades.

23. Assistant-Surgeons of twelve years' service, from the date of first commission (of which two years shall have been passed in charge of a native regiment), who shall have passed the prescribed examination in Professional subjects, will be promoted to the rank of Surgeon.

24. The benefit of this rule is to be extended to all Assistant-Surgeons now in the Indian Service ; but officers now in the Service who may be so promoted will be considered supernumeraries to the establishment of Surgeons as recently laid down, so that no promotion by seniority will take place until such supernumeraries are absorbed.

25. You will make the promotions consequent upon this concession from date of receipt of this Despatch.

26. In the Despatch above referred to, I informed you that you were authorised to introduce certain changes in the mode of payment of officers of the Medical Department serving in India ; and you were informed that, pending a further communication upon the subject, officers of the British or Indian Medical Service holding Staff appointments, the salaries of which are consolidated, will continue to draw their salaries as at present ; and all officers of the Indian Medical Department fn the receipt of Staff salaries, including such as are in Medical charge of native regiments, will continue to draw the aggregate amount of pay and Staff allowances they now receive, provided it be not less than the rate of pay laid down in the above table for officers of their rank and standing in the service.

27. I have now to inform you that it has been determined that in future all employment on the part of Medical officers of the Indian Service involving the receipt of special Staff salary shall be considered as Staff employment, the salaries being in all cases consolidated ; and that all appointments, whether civil or military, held in future by officers of the present Indian Medical Service below the rank of Deputy-Inspector-General, will be alike tenable by Surgeons-Major, Surgeons, and Assistant-Surgeons.

(To be continued.)

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following members of the College having undergone the necessary Examinations for the Fellowship on the 22nd, 23rd, and 24th inst., were reported to have acquitted themselves to the satisfaction of the Court of Examiners, and at a meeting of the Council on the 25th inst. were admitted Fellows of the College, viz. :—

Essex Bowen, Birkenhead, of St. Thomas's Hospital, diploma of membership dated June 7, 1850 ; Frank Buszard, Infirmary, Northampton, of Guy's Hospital, April 16, 1860 ; James Blake Maurice, Marlborough, of St. Mary's Hospital, April 10, 1861 ; and William Morrant Baker, Andover, Hants, of St. Bartholomew's Hospital, April 16, 1861.

It may be interesting to those students about to commence their Professional studies to know that a Preliminary Examination in General Knowledge will be held at the College on the 20th, 21st, and 22nd inst., and that those gentlemen who are approved may at once enter on their Hospital duties, thus saving some considerable time in the prosecution of their studies.

APOTHECARIES' HALL. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, November 24, 1864 :—

John Swindale, Appledore, Devon ; Augustus Square May, Plymouth

William Falconer Clark, 7, Cunningham-place; Henry Octavius Steele, Gomersal, Yorkshire; Walter Lattey, 30, Manor-street, Clapham.

The following Gentlemen also on the same day passed their First Examination:—

Robert Stuart, Guy's Hospital; Francis William Underhill, St. George's Hospital; George Clements Searle, St. George's Hospital; Edward Horne, Charing-cross Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Dyce, Duckworth, M.D. Edin, M.R.C.S. Eng., R.N., to be Acting-Assistant-Surgeon to H.M.S. *Royal Adelaide* (for service at Plymouth Hospital).

Moir, R., M.D., has been appointed Superintendent of the Central Prison at Agra.

DEATHS.

Arnott, James Lovell, M.D. Edin., at Rodney Lodge, Cheltenham, on November 18, aged 24.

Seward, Charles, M.R.C.S. and L.S.A., at Littlehampton, Sussex, on November 28, aged 31, after an illness of two days from typhus fever, late Assistant-Surgeon to the 4th Battalion Prince Consort's own Rifle Brigade.

Shearman, Charles James, M.D. Lond., B.A., etc., etc., at Ingatestone, Essex, on November 16, aged 37, only son of Dr. Shearman, of Rotherham, and formerly Physician to the Sheffield Public Hospital.

The Commission appointed by the Admiralty and Horse Guards to investigate the question of syphilis is composed of Mr. Skey, F.R.S., Chairman, Mr. Cook, Mr. Quain, Dr. Wilks, Dr. Kerkes, Dr. Balfour, Dr. Donet, and Mr. Spencer Smith.

Medical Charities.—The late Mr. Hudson Gurney, of Norwich, amongst other charitable bequests, has left £1000 to the Norfolk and Norwich Hospital; and another banker of the same place, Mr. William Stitt Wilson, has bequeathed £100 to the Whitehaven Infirmary. During the past week some of the Metropolitan Medical charities have benefited liberally under the will of Madame de Lilly, who left a large sum to our gracious Queen to be divided among the poor of London; accordingly, the Lords Commissioners of Her Majesty's Treasury have authorised the Paymaster-General to pay £375 to the Treasurer of the Metropolitan, and a like sum to the Treasurer of the Royal Free Hospital, Gray's-inn-road.

Pathological Society of Dublin.—The first meeting of the 26th annual session of the above society was held on Saturday, the 24th ult., in the Anatomical Theatre of Trinity College, Dr. M'Clintock in the chair, when the following officers were elected for 1864-65:—*President*—Dr. Churchill. *Vice-Presidents*—Joseph O'Ferrall, Joliffe Tufnell, Benjamin G. M'Dowell, Alfred Hudson, Awley Banon, George Kidd. *Council*—Robert Adams, John Banks, Thomas Beatty, Dominick J. Corrigan, John Denham, Christopher Fleming, Samuel Gordon, John Hamilton, James S. Hughes, Robert Law, Alfred H. M'Clintock, George A. Porter. *Honorary Secretary*—William Stokes. *Secretary and Treasurer*—Robert W. Smith. *Secretary for Foreign Correspondence*—Robert D. Lyons. The subject of the essay for the Society's gold medal to be awarded at the close of the session was announced to be the "Diagnosis and Pathology of Diseases of the Prostate Gland."

Odontological Society.—November 7, 1864.—Edwin Saunders, Esq., President, in the chair.—Charles James Fox, M.R.C.S., L.D.S., read a paper "On the Preparation of the Mouth for the Reception of Artificial Teeth," which ended with the following conclusions:—First, that every tooth, properly so called, should be retained as long as possible. Secondly, that if any rule is to be laid down at all, it should be that roots must be extracted prior to the adaptation of artificial teeth, but that circumstances so often occur to render departure from any such rule necessary, and this is a question involving in so eminent a degree the judgment of the dentist that it is not advisable to publish any rules which may hamper him in the exercise of his practice. Thirdly, that the use of temporary pieces is advisable where possible, and that the practice of a certain class of dentists of inserting teeth soon after the extraction of roots, etc., without having explained the results of absorption to the patient, cannot be too severely reprehended. The President expressed the thanks of the society to Mr. Fox for his very excellent paper. It was a subject full of interest, and one on which he hoped to hear some opinions expressed. After an interesting discussion it seemed to be the general feeling of the society, as far as regarded the removal or not of roots preparatory to the adaptation of artificial teeth, that even roots should be retained as much as possible, but that cases must be judged on their individual merits. At the next meeting, on December 5, N. W. Kingsley, Esq., will read a paper "On the Treatment of Cleft Palate and Artificial Velum."

The Lavies Testimonial Dinner.—A number of gentlemen, who are members of the National Medical Registration Association, or interested in that Society, met together at dinner on last Wednesday night at the Freemasons' Tavern, for the purpose of testifying their respect for Mr. Lavies, the Society's president, and of sympathising with him in all the trouble and anxiety he has experienced during his tenure of office. About sixty sat down to an excellent entertainment, the chair being taken by Mr. Fergusson, who was supported on the right by Mr. Lavies, the guest of the evening, Mr. Lush, Q.C., Mr. Propert, Dr. G. Johnson, Dr. Webster, Mr. Hancock, Dr. Ansell, etc.; and on the left by Mr. Brady, M.P., Mr. Tidd Pratt, Dr. Grœme, Dr. Copland, the Rev. Mr. Borradaile, Mr. Hakett, J.P., and many other distinguished men. The usual loyal and patriotic toasts having been proposed, that of "the Houses of Parliament" responded to by Mr. Brady, M.P., the Chairman addressed himself to the toast of the evening. After alluding to the private worth of Mr. Lavies, and of the general esteem in which he has always been held, both in his own neighbourhood and by the Profession generally, he proceeded to give a short sketch of the history and progress of the Registration Society. He said that this Association had been instituted as a help to the Medical Council, and had been of the greatest service to that body in indicating the legitimate and illegitimate Practitioner; that the Vigilance Committee had worked so successfully that hundreds of pretenders had been compelled to remove the untruthful notices by which the public was deceived and the honest Practitioner robbed; and that had it not been for the interpretation placed by eminent lawyers on one of the clauses of the Act, he believed that by the operations of the Society ignorant and unprincipled pretenders would have by this time been wiped out of the face of society. He hoped that so good an institution was only in abeyance, and that when the clause was amended it might continue its useful course. The Chairman then, addressing himself to the special object of the meeting, stated that throughout all the doings of the Society Mr. Lavies had been its firm and staunch friend, never grudging time, trouble, and money to help it in its difficulties. It was not his fault if legal doubts caused for a time a suspension to its operations, and he had had for a long period a very anxious time to pass and a great many troubles to encounter, but he had met and braved them all manfully in the Profession's cause, and he (the Chairman) trusted that when it became known their guest had not only lost much time but much money also, the hint would not be thrown away. The Chairman concluded his speech by again alluding to the public spirit and private worth of Mr. Lavies, and by giving him a cordial welcome to the entertainment provided for him. The toast was received with loud and continued cheers. Mr. Lavies, in reply, said that he must be forgiven if he felt considerable emotion at the kindness shown to him. He was not only grateful for the way in which his name had been proposed and received, but for the whole course of considerate kindness and attention which had been exhibited, and which found its climax at that brilliant meeting. He had always taken the greatest interest in all that concerned his Profession's good. From his earliest days he had assisted cheerfully when anything had been instituted, or attempted to be instituted, having for its object either the benefit of the Medical Profession or the promotion of good feeling among its members; and he did not feel inclined to discontinue his course now that increasing years and, perhaps, influence might make him more useful. The Chairman had already said so much about the Society and its operations that really nothing of business remained for him to allude to, unless it might be that he was not alone in any substantial help that may have been afforded; but the Chairman and many others had come most liberally forward to help in the time of need. He could not regret having endeavoured to fill an office previously occupied by such distingushed men as Dr. Webster and Mr. Fergusson; and he could only say that the happiness of the present evening was much more than a compensation to him for anything

he may have suffered in the past. Mr. Lavies concluded by saying that November 23, 1864, would be a day deeply engraven on his heart, and would live in his memory as long as that memory lasted. He should think of it as a day on which his last Professional act met with the last reward he could wish it to receive—due approbation of his Professional brethren. The Chairman's health was proposed by Mr. Propert, and briefly acknowledged. Mr. Erichsen, in a most beautiful address, proposed "The Sister Professions," and the toast was acknowledged by the Rev. Mr. Borradaile and Mr. Lush, Q.C. Dr. Webster proposed "The Examining Bodies;" and Dr. Copland, Mr. Hancock, and Dr. Stephen Ward replied. "The Medical Press" was proposed by Mr. Adams; and special notice was taken by that gentleman of the liberal way in which the Association had been treated by the Press. Mr. Williams replied for the *Lancet*. "The Committee" and "Secretaries" were severally proposed by Dr. Johnson and Dr. Lavies, and replied to by Mr. Clifton and Mr. Jabez Hogg. Mr. Jabez Hogg, in replying to the toast of "The Hon. Secretaries," said that they had received numerous letters expressing the regret of the writers for their unavoidable absence from the dinner, at the same time requesting to be allowed to subscribe to the Testimonial Fund. From—Dr. C. J. B. Williams, £10; James Hallett, Esq., £5; Dr. Jenner, £1 1s.; Dr. Budd, £1 1s.; Dr. Savage, £1; Erasmus Wilson, Esq., £1 1s.; Alfred Canton, Esq., £1 1s.; Joseph Ward, Esq., £1 1s.; Dr. H. G. Wright, £5; Dr. Turmaley, £1 1s.; Dr. Cross, £1 1s.; J. New, Esq., £1 1s.; Dr. Waters, 10s. 6d. We are requested, also, to acknowledge the following donations:—William Fergusson, Esq., £10; J. Erichsen, Esq., £10; William Adams, Esq., Harrington-square, £10; Dr. Lilley, £10; Jabez Hogg, £10; Dr. Webster, Dulwich, £10; N. H. Clifton, Esq., £5; W. A. Cattlin, Esq., £5; Dr. Bradford, £5; C. Lord, Esq., £1 1s.; — Fish, Esq., 10s.; — Wilton, Esq., 10s. 6d.; — Baxter, Esq., 10s.; Dr. Wheatley, 10s. 6d.; — Mullett, Esq., £1; Dr. Henry Davis, 10s.; Dr. Maurice Davis, 5s. The evening was enlivened with some excellent part-singing by amateurs, which appeared to give universal satisfaction.

PORK-PIES!—On Tuesday, at the Clerkenwell Police-court, William Johnstone, pork-pie manufacturer, Essex-road, Islington, was summoned before Mr. Barker, for having had a quantity of veal and pork deposited on his premises for the purpose of sale and of preparation for sale, the same being unfit for the food of man. Mr. Layton said that the defendant was fined £15 on October 25 last for a similar offence. Mr. Robert Dunham said: I am Inspector of Nuisances to the Vestry of Islington. On November 19, about half-past ten, I visited the premises of Mr. Johnstone, wholesale pork-pie maker, 154, Essex-road, and examined them. He has a bake-house at the back. In the bakehouse I found two men making pies from meat which was in a tub cut in small pieces. I examined it, and found it of a dark colour and putrid. In the passage, swung on hooks, I found a piece of hog fat, six pieces of veal, and a hand or shoulder of pork. It was putrid, the veal very much so, and damp. The pieces in the tub were cut from larger pieces. I seized it, and left Mr. Godbold in charge of it while I went for Dr. Ballard, who also inspected the meat on his arrival. On a bench in the passage I found a number of pieces of hog fat. I examined them singly, and then handed them to Dr. Ballard, who also examined them. They were in a state of decomposition, some pieces much worse than others. I seized the whole of it, as, in my opinion, it was unwholesome and unfit for food for man. When I seized the meat the defendant asked to be allowed to destroy it. Dr. Ballard examined: I am Medical Officer of Health to the Vestry of Islington. I have examined the meat, and it was totally unfit for human food. I saw the joints and the "stuff" in the tub. The whole of it was unfit for human food. Cross-examined by Mr. Lewis: I have found haunches of venison "high" and game also, but fit for human food. Mr. Lewis addressed the Court for the defendant, and contended that, as there was an amendment to the summons, the defendant was out of court. He was charged with having the meat for sale and for preparation for sale. There was no evidence to show that the meat was for sale. It might have been in preparation for the making of pies; the mere fact of having the meat which might be made into pies was not sufficient to convict the defendant. Mr. Barker: I don't think your objection valid. You can appeal, Mr. Lewis, if you like. Mr. Lewis continued: The meat was bought of Mr. Currier, a respectable man, and it was then fresh. Dr. Ballard re-examined: I took some of the veal and pork home to examine. I manipulated the meat in the pan, and I was perfectly satisfied that it was putrid. Mr. Barker said that, after the evidence, he could have no doubt the meat was putrid. He should not be doing his duty if he did not inflict the full penalty under the Act of £20, the alternative being three months' imprisonment. Mr. Barker made an order for the payment of the amount within twenty-eight days.

LIQUEFACTION OF LAUGHING GAS.—One of the most interesting objects at a recent *soirée* at the Paris Observatory consisted in the exhibition of the liquefaction of laughing gas, the protoxide of nitrogen, by M. Bianchi. This took place at zero Centigrade under a pressure of thirty atmospheres, the fluid issuing in a small jet from a strong metallic reservoir. Received in a glass tube, it retained its liquid condition by reason of the depression of temperature produced by evaporation, so that mercury being introduced solidified, and could be hammered like lead. Simultaneously, a body in a state of ignition, plunged into the atmosphere of the liquid, in which the mercury froze, burnt with a brilliant light. On pouring the protoxide into a small platinum capsule heated to redness, the liquid was found to retain all its properties while assuming the spheroidal state, and was still able to freeze mercury contained in little glass ampullæ. Finally, the liquid protoxide became solidified under the recipient of an air-pump, the temperature being reduced to 120° below zero Centigrade—the most intense cold yet obtained.—*Rev. Med.*, October.

CENSUS OF DOGS IN FRANCE.—According to this the total number of dogs in France in 1863 was 1,860,113—viz., 495,322 in the first category (hunting and fancy dogs), and 134,791 in the second category (house and watch dogs). The total product of the dog tax in 1863 amounted to 5,461,116 francs—viz., 3,450,165 for the first category and 2,004,921 for the second.

PRESERVATION OF CHLOROFORM BY CAUSTIC SODA.—M. Boetger states that chloroform, which, in consequence of exposure to the light, contains chlorhydric acid and contracts a strong odour of chlorine, may be purified by shaking it with some fragments of caustic soda. It is then fit again for inhalation, and it may, indeed, be preserved for an indefinite time when exposed to the light if kept in contact with a little caustic soda.—*Rev. Med.*, October.

GREASY BOTTLES.—M. Stanislas Martin recommends, as by far the best and most economical mode of cleansing greasy bottles and such as retain the odour of essential oils, the employment of oak sawdust with a little water, as hot as possible. The bottle is to be shaken for some seconds, the sawdust being replaced once or twice if necessary, and the bottle then being rinsed in water.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Mapother's excellent little manual is not forgotten.

Hope shall see an answer next week.

Jacques.—You had better read under a master or tutor. If in London, consult Dr. Power, of Queen's-square, W.C.

If *H. F. J.* will send the donation to the office of the *Medical Times and Gazette*, it shall be forwarded to the persons for whom it is intended.

The subscription for the family of the late Mr. Walker, of Crick:—Mr. Chubb, Torpoint, Devonport, 5s.

MEDICAL BISHOPS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As an interesting fact in the history of the Medical Profession, let me say that, in addition to the Bishop of Labuan (Macdougal) and the Bishop of Ripon (Bickersteth), the late Bishop Boone, Missionary Bishop of the United States to China, was also a Medical man. The Right Rev. Wm. Jones Boone, D.D., studied Medicine at Charleston, South Carolina, and even after he had relinquished Medicine as a profession in favour of missionary life, he continued his studies, in order that he might be able to benefit the bodies as well as the souls of the heathen.

I am, &c. Δ

THE CANDLER *v.* PEAT FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you allow me to make one more appeal to the Profession for subscriptions to the fund which is being raised for defraying the expenses of the unjust action of Candler *v.* Peat? The subscriptions only amount to £95, although some of the original subscribers have doubled their subscriptions. The bill of costs is £152 17s. 6d. If 200 of your readers were to send me 5s. each, Mr. Peat would be relieved from this claim upon him.

I am, &c.

Colchester, November 29. C. R. BREE, M D., Treasurer.

The Griffin Testimonial Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The following subscriptions have been further received on behalf of the above fund:—Dr. F. Fitch, Kidderminster, 5s.; per G. Shorland, Esq.: Dr. Gibbs, Westbury, 5s., Isaac Tucker, Esq., do., 5s., Dr. Seale, do., 5s., and G. Shorland, Esq., do., 5s.; Dr. Hooper, Camberwell, 10s. Amount previously announced, £103 7s. 6d.; received at the *Lancet* office, £6 14s.

I am, &c.

Robert Fowler, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, November 30.

Medical Officers in the Public Service.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Assuming that you will notice Sir Chas. Wood's famous State paper in your journal of Saturday next, permit me to remind you of the debt of gratitude which the Medical officers of the Indian Service and the Profession generally owe to the honourable member for King's County for his services in the cause. If Sir Chas. Wood had succeeded in his attempt to abolish the competitive system of examination, the Indian Medical officers might have petitioned and written in vain for that measure of justice which has now been so fully accorded.

To Mr. Pope Hennessy, then, is due the credit of having prevented a retrograde step, which would have been fatal to the interest of the Indian Medical officers and injurious to the public service. And let us hope that his talent may be directed to obtain for the Medical officers of the army generally a similar measure of justice, and that the competitive system may be applied to the navy, and thus qualify, as it were, the Medical officers of that branch of the public service for a participation in the same.

I am, &c.

London, November 29. Medicus.

Ill-treatment of Chinese in Australia.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—As your journal is looked upon as a record of the sciences allied to Medicine, including anthropology, or the natural history of man, I beg to send you a few lines to serve as contribution to the history of the so-called Anglo-Saxon race. Every one admits their indomitable energy and pluck, but some of themselves are indiscreet enough to claim likewise the glory of being the true Israelites of human progress, the chosen people of freedom, the apostles of universal philanthropy and international brotherhood, the sowers broadcast of the Bible, the friends of free trade, the "doers unto others as they would be done by themselves;"—and why should I exhaust myself in repeating these well-known boasts? But what is the fact? Whilst we are waging a war against the Japanese in order to force upon them commercial intercourse with Europe, the English in Australia lose no opportunity of maltreating the Chinese, who flock to that unpeopled continent for man's greatest privilege—work and bread.

"An occurrence has recently been reported," says the *Sydney Mail* of August 27, "which shows that even after the Chinese have left these shores on their way home, they are not safe from violence. The ship *Euphrates* left Sydney with seventy returning Chinamen on board, and among them, as a cabin passenger, was Leau Appa with his wife, an Irish girl whom he had married in the colony, and his two children. During the passage it appears that the captain took no pains to secure proper ventilation, and that the Chinese were treated with the contempt and violence which rough and uneducated Englishmen so often display towards the inferior races. The captain chose to consider their conduct mutinous, and Leau Appa was shot dead by the mate Exactly how this happened is not clear, for the two accounts we have do not tally. The captain says it was accidental, but there is enough that is suspicious about the whole transaction to justify a very rigid investigation. Leau Appa was well known in Sydney as a Chinese merchant, and was much respected both by his own countrymen and the Europeans with whom he was brought in contact. In early life he was taught by the missionaries, and embraced Christianity. He was a member of a Christian church in Sydney, and was a very regular attendant. He was singularly mild and inoffensive in his manner, and a most unlikely man to provoke or countenance any disturbance."

The *Sydney Morning Herald* of August 26 has an article in similar spirit. The Chinese are bullied, beaten, and shamefully ill-treated, and when they return home have good reason to speak of the English as "devils."

It is right to add that the Bishop of Sydney and the clergy of all denominations have always, to their honour, protested against the maltreatment of the Chinese.

I hope this will be taken up by the Ethnological or Anthropological Societies, or the Aborigines' Protection Society, and brought before the House of Commons.

I am, &c.

London, November 20. Anglo-Celt.

The Quacks and their Allies the Press.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—On calling to-day to see a young lady who has been under my care for the last six months for incipient phthisis, I was surprised to find her in a most depressed and desponding condition; and on inquiring the cause, I found she had taken up the *Standard* to read yesterday, and had unluckily alighted upon a communication of Dr. Hunter's on "Spitting of Blood," etc., and had so associated her own case with the picture drawn in this "production" as to become greatly alarmed, and to produce the state in which I found her. Now, Sir, my patient has, in a very slight degree, the usual signs of commencing tubercular deposit in the left apex, with scanty sputum, which is now and again tinged with blood; and as she takes cod-liver oil, quinine, and iron mixture, and abundance of nourishment, I regard hers as a very hopeful case, and have always told her and her friends I anticipated the disease becoming arrested, particularly as since she has been under treatment a manifest improvement has taken place in the physical signs. But to-day I have pointed out to me the words "fearful significance, alarming symptom, fearful import," as referred to "the occurrence of streaks of blood in the mucus expectorated," and am asked my opinion thereon. What can be Dr. Hunter's object in writing to a newspaper upon such a subject? In a Medical point of view his letters are worthless, for he advances no new theory, nor does he recommend any novelty in treatment, and if he can add to our present knowledge of this disease, the Medical periodicals are open to him. I presume (particularly as his letters are headed "communicated," and he must pay for their insertion) that he seeks by their means to gain a name for the treatment of phthisis; and I am sure, Sir, you will agree with me in condemning such a course as calculated to create a vast deal of mischief, as these letters must fall into the hands of numbers of phthisical people, and (as in the case of my patient) produce an anxiety of mind which must tend to defeat the very object of our treatment. If Dr. Hunter aims at popularity, why does he not establish a "Museum" at 14, Upper Seymour-street, and issue handbills, etc., as I should imagine this to be a much better means of accomplishing his desire? If Dr. Hunter is regularly qualified, I blush to think he is "one of ours." I am, &c.

Southsea, November 30. Indignans.

P.S.—As you may not have seen the letters, I have cut out one for your perusal.

COMMUNICATIONS have been received from—

W. Allingham, Esq.; Indignans; R. Holt, Esq.; An Ex-Assistant-Surgeon; J. Cresswell, Esq.; M.D.; Dr. Bree; Dr. Shearman; W. Parker, Esq.; Dr. Rickards; Medicus; Dr. Graily Hewitt; The Royal Institution; The Epidemiological Society; The Anthropological Society; Jacques; Medical Society of London; H. T. Johnson, Esq.; The "Brighton News;" Odontological Society; Dr. Humphrey; Dr. R. Fowler; Dr. Mapother; F.R.C.S.; C. W. Chubb, Esq.; Dr. Ramskill; Dr. Dyce.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 26, 1864.

BIRTHS.

Births of Boys, 1004; Girls, 940; Total, 1944.
Average of 10 corresponding weeks, 1854-63, 1745·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	825	852	1677
Average of the ten years 1854-63	693·7	686·6	1380·3
Average corrected to increased population..	..	..	1518
Deaths of people above 90	..	..	6

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	1	11	11	1	1	14	4
North ..	618,210	2	17	20	1	7	12	5
Central ..	378,058	2	6	15	1	7	10	3
East ..	571,158	..	10	21	2	7	15	6
South ..	773,175	4	9	23	5	9	31	5
Total ..	2,803,989	9	53	90	10	31	82	23

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·304 in.
Mean temperature	42·1
Highest point of thermometer	52·5
Lowest point of thermometer	31·4
Mean dew-point temperature	39·2
General direction of wind	S.W.
Whole amount of rain in the week	1·43 in.

APPOINTMENTS FOR THE WEEK.

December 3. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

5. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

Epidemiological Society, 8 p.m. Mr. Radcliffe, "On the Prevalence, Distribution, and Limitation of Scarlet Fever in England."

Medical Society of London, 8 p.m. Dr. Habershon, "On the Constitutional Character and Modifications of Skin Diseases."

Royal Institution, 2 p.m. General Monthly Meeting of Members.

6. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Anthropological Society of London, 8 p.m. Samuel Laing, Esq., F.G.S., "On the Contents of a Kist from Keiss, N.B." Geo. E. Roberts, Esq., F.G.S., "On a Large Kistvoen in the Muckle Heog, in the Island of Unst, Shetland;" with "Notes upon the Human Remains," by C. Carter Blake, Esq., F.G.S. Dr. Bird, "On Tumuli from Cheltenham." Geo. E. Roberts, Esq., "On Some Pre-historic Hut Circles." Dr. T. W. Smart, "On Some Ancient Skulls;" communicated by the President.

Pathological Society, 8 p.m. Meeting.

7. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

Medical Society of London, 8 p.m. Dr. Thudichum, "Lettsomian Lectures."

Obstetrical Society of London, 8 p.m. Dr. Wade (Birmingham), "On Puerperal Embolism." Mr. Baker Brown, "Complete Extirpation of the Uterus and Ovaries, with large Fibrous Tumour." Dr. Braxton Hicks, "On Delivery of the Head after Perforation."

8. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

9. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

COURSE OF
LECTURES
ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D., F.R.C.P.,
Professor in University College, and Assistant-Physician to University College Hospital.

Lecture IX.

ON THE CLINICAL SIGNIFICANCE AND PATHOLOGICAL IMPORTANCE OF THE PRESENCE IN THE URINE OF INOSITE—CREATIN AND CREATININ—CHOLESTERIN—CYSTIN, (CALCULI)—XANTHIN, (CALCULI)—LEUCIN—AND TYROSIN.

INOSITE—INOSURIA.

Inosuria is a term given to certain morbid conditions which are characterised by the presence of inosite in the urine.

Chemistry.

Inosite was first discovered by Scherer in 1850 in the muscular substance of the heart, in which it exists in considerable quantity. It is a beautiful white crystalline body, and by its discoverer was thought to be a kind of sugar, in consequence of its composition being represented by $C_{12}H_{12}O_{12}$, which is precisely the same as that of sugar of milk. When analysed without previous desication, it contains four equivalents of oxygen and hydrogen more than represented above; hence, two equivalents of water more than cane sugar and four more than milk sugar. Further observation has, however, shown that, although inosite is isomeric with sugar, its reactions are too different to allow of its being placed in the saccharine group. For example, it neither browns with potash nor reduces the oxide of copper, which are, as is well known, two of the most characteristic properties of grape sugar. On the other hand, it resembles sugar in being very soluble in water and only sparingly soluble in alcohol; also in being by fermentation changed, among other things, into lactic acid. It is, however, incapable of alcoholic fermentation.

The presence of inosite in water is readily ascertained by adding a drop or two of nitric acid and evaporating the mixture in a capsule. After cooling, the dry residue is moistened with a drop of the chloride of lime and ammonia, and then gently warmed, when a fine rose colour indicates the presence of inosite. After a short time the colour fades away in consequence of the compound having absorbed water from the atmosphere, but on being again dried the red tint reappears.

As the presence of uric acid interferes with this test, Gallois proposes the following method for the detection of inosite in urine:—

To an ounce or two of urine a saturated solution of the neutral acetate of lead is added until a precipitate ceases to form. The mixture is then filtered, and to the clear liquid which contains the inosite basic acetate of lead solution is added, which precipitates the inosite in the form of an insoluble lead compound. After standing twenty-four hours the supernatant liquid is thrown away, and the precipitate washed with distilled water as long as any soluble matter is extracted. After this the compound is mixed with an ounce or two of distilled water and a current of sulphuretted hydrogen gas passed through it, until the lead is all separated in the form of insoluble sulphuret, which is collected on a filter, while the clear filtrate containing the inosite is evaporated to nearly dryness. When nearly dry, a drop of the nitric oxide of mercury is added, heat is again applied, and as the liquid becomes dry a fine rose colour is produced if inosite be present.

When albuminous urine is being tested, the albumen must be first separated with acetic acid and heat. In the case of diabetic urine, on the other hand, tribasic instead of the ordinary basic acetate of lead solution is employed, and the precipitate washed so long as sugar comes away, which is easily ascertained by the ordinary reactions. In other respects the method of analysis is the same.

Physiology.

As already said, Scherer found inosite in the tissue of the heart; but this is not the only organ of the body in which it is met with. In 1852, while working with Robin and Verdeil, I discovered inosite in the voluntary muscular fibre of the ox, and succeeded in preparing some very fine crystals of its compound with baryta from a few pounds of beef-steak.

An admirable drawing, as well as a full description of these crystals, was subsequently given by Robin and Verdeil in their "Chimie Anatomique." (b) The subjoined figure (16) is a copy of a few of the most characteristic forms there represented. The crystals are colourless and transparent. Some appear as groups of fine needles (*d*), others as stars (*e*), and a few of the larger bundles are fan-shaped (*c*). Occasionally also oblong plates, singly or in groups (*a*, *b*), are found mixed up with a few free needles.

Fig. 16.

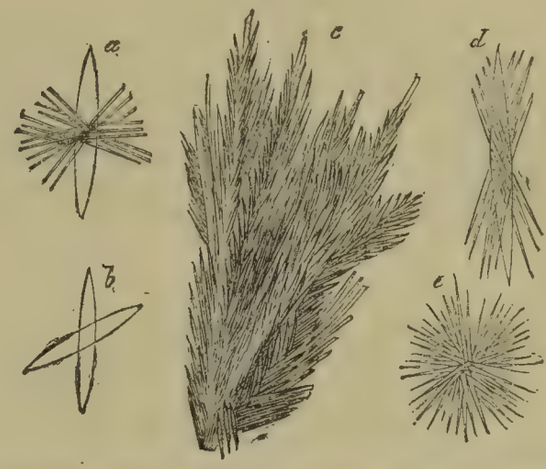


Fig. 16.—Crystals of the inosite of baryta from voluntary muscle.

Inosite is not alone to be met with in the muscular tissues of the organism, but also in the brain (Müller), lungs (Cloetta), spleen, and pancreas. It must, therefore, be regarded as one of the normal constituents of the body. The part it plays there is, however, still unknown, although, in consequence of its crystalline nature, it is highly probable that it is like urea and uric acid—one of the effete products of healthy action.

Pathology.

According to the recent researches of Dr. N. Gallois, (c) healthy human urine is devoid of inosite, whereas, as Cloetta first pointed out, both in the urine of albuminuria and diabetes, the substance exists in appreciable quantity.

Although it would thus appear that both sugar and inosite may present themselves in the urine at the same time, they are, nevertheless, more generally observed separately than combined.

The presence of inosite in the urine *per se*—that is, without being associated with any other urinary affection—such, for example, as albuminuria or diabetes, can scarcely be said to constitute a known disease, for inosuria, as it has been called, has not as yet been found to possess any characteristic symptoms, all that is known on the subject being that perfectly normal urine contains none.

As it is not at all unlikely that at no very distant date this substance may assume a clinical importance, it may be useful briefly to mention a few of the pathological conditions in which it has already been met with. The following are extracted from J. Neukomm's Thesis (Zurich, 1859). The researches were made in Staedeler's laboratory, and consequently under his supervision.

Bright's Disease.—Male, aged 34; six months ill; albuminuria, œdema, convulsions, and coma. The urine during life contained a small quantity of inosite, and after death the brain was found to contain abundance of that substance.

Diabetes.—Man, aged 29; the progress of the disease during the latter period was very rapid. After death the kidneys were found to contain only a small quantity of inosite, while the brain contained it in abundance.

Syphilitic cachexia,—in which there was ascites and œdema of the legs with a rapid diminution of strength, the patient dying on the sixth day. The kidneys contained a large quantity of inosite, whereas the brain gave evidence of none, exactly the reverse of what was found in the preceding two cases.

Typhus.—In a young man, who died in the third week; no inosite could be found either in the heart or kidneys.

Lastly, in a case of Phthisis in a girl, aged 17, a remarkable

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—Ed. *Med. Times and Gaz.*

(b) *Vide* Vol. II., p. 459, and Plate XLV. of the Atlas.

(c) Monograph "De L'Inosurie." Paris. 1864.

quantity of inosite was found in the brain, and scarcely any in the heart.

These cases are far too few to admit of our drawing any conclusions from them, except it may, perhaps, be that the proportion of inosite present in the organs during health and disease is occasionally reversed. Gallois, who has paid considerable attention to the subject, thinks it probable that an excess of inosite in the urine arises from the imperfect performance of the glucogenic function of the liver, for even in cases of artificial diabetes in animals (produced by puncturing the fourth ventricle of the brain) he occasionally found inosuria accidentally produced.

Creatin and Creatinin in Health and Disease.

In the animal body we meet with two substances, which are so closely allied to each other that they have received the respective names of creatin and creatinin, and although it is only the latter that is excreted from the body along with the urine, the former, in consequence of the ready convertibility of one substance into the other, is with almost equal frequency encountered in the renal secretion. In order, therefore, clearly to explain this subject it will be necessary for me briefly to mention the chemical characters and physiological history of each.

Chemistry.

Creatin is a white crystalline organic substance, with a neutral reaction. It is soluble in water, slightly soluble in alcohol, and insoluble in ether. When boiled with strong alkalies it is decomposed, and converted into urea, sarcosine, and, if the boiling is continued sufficiently long, into carbonate of ammonia.

When heated with strong acids it is transformed into *creatinin*, a substance closely allied to it, the only difference in their composition being that it contains two equivalents less of water than creatin. In properties, on the other hand, the substances are very dissimilar, creatinin being alkaline, and not only soluble in water, but in alcohol also, and even slightly soluble in ether.

Both creatin and creatinin may be separated from the urine by adding to it milk of lime and chloride of calcium, filtering the liquid from the precipitate, then concentrating it to a syrup and adding a little chloride of zinc, which combines with the creatin and creatinin to form a crystalline compound easily separable by further filtration. This crystalline compound has next to be decomposed by dissolving it in warm water, and adding a small quantity of hydrated oxide of lead. The liquid has again to be filtered from the precipitate of oxide of zinc and lead, and boiled with charcoal to remove the colouring matter, again filtered, and again concentrated and allowed to strain until the creatin and creatinin crystallise. The aqueous solution of creatinin gives a flocculent white precipitate with the bichloride of mercury, and reddish crystals with the bichloride of platinum.

Physiology.

Creatin was first discovered in the juice of flesh by Liebig, in the blood by Verdeil and Marcet, and in the urine by Heintz; and although creatinin has also been detected in all of these situations (Liebig), there is this remarkable difference between the two substances, that while creatin is most abundant in the tissues, creatinin occurs in the largest quantity in the urine. This fact has formed the foundation of the theory that creatin is the direct product of muscular action, and creatinin the result of the still further retrograde metamorphosis of the creatin. This view is supposed to gain additional support from the circumstance that by the simple act of decomposition all the creatin present in urine is speedily converted into creatinin. Some say that creatin is normally excreted by the kidneys as well as creatinin, but this is a point upon which further evidence is required. Meanwhile, it may be mentioned that the respective amounts of these substances said to be excreted during the twenty-four hours by healthy adults is 0·305 gramme (4·7 grains) of creatin (Thudichum), and 1 gramme (15½ grains) of creatinin (Neubauer). One curious fact connected with these substances is that, under certain conditions, the creatinin is reconvertible into creatin. Thus, on one occasion Liebig found in the urine of a dog, which had been fed solely on flesh, a great quantity of creatinin, and no creatin whatever; whereas after this urine had been treated with milk of lime, and allowed to stand for six weeks, abundance of creatin was detectable. It is presumed, therefore, that the lime had in this case reconverted the creatinin into creatin.

Pathology.

These substances so very rarely occur as spontaneous deposits that little is at present known regarding their pathological importance. In March, 1861, I injected into the portal vein of a small dog three drops of alcohol in two drachms of water. Two days afterwards the urine contained a small quantity of sugar, and in two days more the dog was sacrificed, and his urine removed from the bladder. It was then clear and tolerably high coloured, but was no longer saccharine. It was put aside, and in ten days the surface of the liquid, which was still very acid, was covered with large crystals, which were at first thought to be phosphates.

Fig. 17.

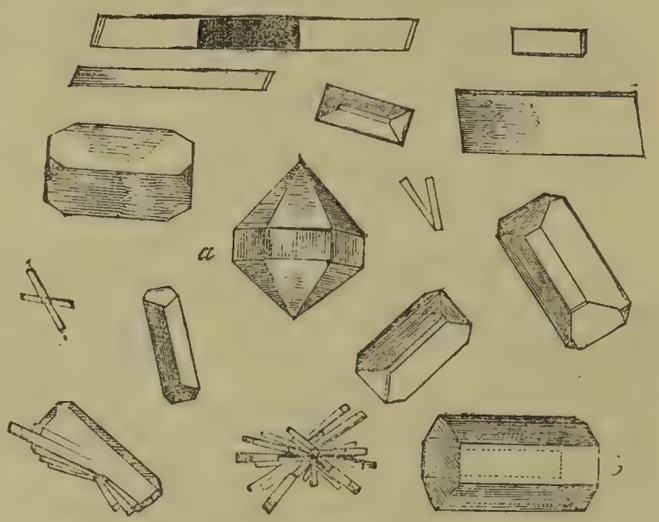


Fig. 17.—Crystals of creatin, after Robin and Verdeil.

Two circumstances, however, raised a doubt in my mind as to their nature—first, the fact of the urine having an acid reaction; and second, the enormous size of the crystals. The bottom of the vessel also contained a large quantity, so there was no difficulty found in further investigating them. They were ascertained to be beautiful polariscopic objects of an organic nature, and of the forms represented in the above figure (17)

On adding nitric acid to some of the urine just as it stood, it was so loaded with urea that the whole became one mass of crystals. Since making the above observation, I have frequently set aside urines with the view of again obtaining a similar spontaneous deposit, and I have seen it once in a case of diabetes in a young clergyman, twice again in dogs fed on flesh diet, and rendered artificially diabetic, and once in the urine of a stall-fed London cow. The cow's urine is normally alkaline; but in this case it was acid even after it had stood four days (November 4, 1862). When passed it was very watery; and all that was done, was merely to evaporate it to one-half over the water bath. The crystals were very large, being not only visible to the naked eye, but some of them quite big enough to be picked up with the fingers.

Cholesterin as a Urinary Deposit.

Chemistry.

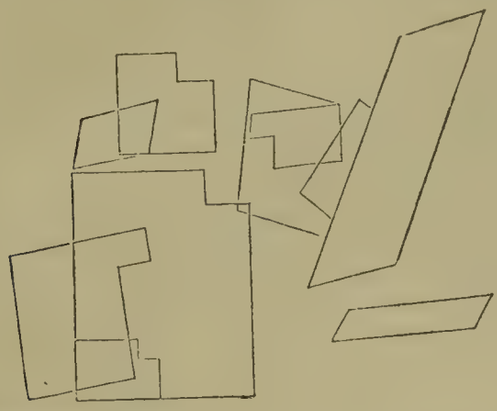
Cholesterin is a beautiful white crystalline substance, in many respects resembling a fat—indeed, for several years it went under the name of "biliary fat." It is quite insoluble in water, alkalies, and acids; very soluble in alcohol and ether; highly inflammable, and destitute of nitrogen; its composition in 100 parts being—

Carbon	84·00
Hydrogen	12·00
Oxygen	4·00
	100·00

It is readily distinguished from all ordinary fatty matters in consequence of being non-saponifiable with alkalies. When pure, chlolesterin is found in thin, white, transparent, rhomboidal plates, with parallel sides, and sharp angles. As represented in fig. 18, the crystals are occasionally large and superimposed on one another, but in consequence of their transparency the outlines of the under strata are as well seen as those of the upper. Hence they are fine microscopic objects, visible with a low power.

The easiest test for chloresterin is its microscopic characters, in combination with its extreme solubility in hot alcohol, and re-deposition on cooling in a crystalline form. If the cholesterin be in a dry state it gives along with sulphuric acid on a white porcelain vessel a beautiful play of colours, passing through the different shades of orange, red, purple, and green.

Fig. 18.



By prolonged boiling with nitric acid cholesterin is converted into (among other things) oxalic, acetic, and butyric acids.

Physiology.

Chloresterin is one of the normal ingredients of the human body. It is met with in large quantity in the bile, in which it is retained in a soluble state by glycocholic and taurocholic acids, in the aqueous solutions of which it is exceedingly soluble. Chloresterin is also a normal constituent of the nervous system, being very abundant in the brain and spinal cord. Moreover, it is to be met with in the tissue of the liver and spleen, and is also regarded in the light of a constant constituent of the blood.

Chloresterin seems to undergo decomposition in the body, for as far as I am aware it has never been found as a product of any of the normal excretions, although to be met with abundantly in a great variety of situations during disease.

Pathology.

Cholesterin was originally discovered in biliary calculi, many—indeed, I might say most, of which are almost entirely composed of this substance. On a few rare occasions the calculus may be said to consist of pure cholesterin. Here is one, from my own collection, which is, as you perceive, of almost transparent purity, notwithstanding that it is as large as a pigeon's egg.

Cholesterin is a common constituent of liquid exudations, being found in large quantity in the fluid of ovarian cysts, hydroceles, and hydatids.

It is also constantly to be met with in the pasty-like matter of sebaceous cysts; in fact, there are few cystic tumours, be their contents solid or liquid, to be found without it.

Lehmann has also met with crystals of cholesterin both in the choroid plexus of the brain and in the pulmonary expectoration of advanced phthisis.

In calcified tubercle and ecchinococci it is frequently to be met with.

Notwithstanding it being such a very common pathological product, cholesterin was not until lately believed to be excreted with the urine. Möller was the first to call attention to its presence in the renal excretion, having on two occasions met with crystals of it in the kiestein of pregnancy. Gmelin also found cholesterin in the urine in a case of jaundice from obstructed bile-duct; and since then various authors have called attention to its occasional presence in the secretion. To Dr. Beale we are chiefly indebted, however, for giving prominence to the subject. He detected it in the urine in several cases of fatty degeneration of the kidneys in considerable quantity, and also called attention to the important fact that the oil globules found at the bottom of the vessel in cases of kidney disease consist, not of the ordinary fats, as hitherto supposed, but of cholesterin, as can be proved, he says, by dissolving them in alcohol and recrystallising. Cholesterin thus differs from other fatty substances in being heavier than water.

It may, perhaps, not be out of place to mention the fact that cholesterin in a crystalline form is not unfrequently met with in pus, more especially after it has stood a few days.

The presence of cholesterin in one and all of the beforementioned abnormal situations, is not, however, of any great clinical import except when it appears in the sputa or in the urine; for then, and then alone, can it be regarded as a sign of severely-disordered tissue metamorphosis.

ORIGINAL COMMUNICATIONS.

ON A CASE OF

FELONIOUS ADMINISTRATION OF A SPANISH FLY FOLLOWED BY EPILEPSY AND HYSTERIA.

By WILLIAM SEDGWICK, M.R.C.S.

In the following case (which was tried at the autumn Surrey Sessions, 1862, when the prisoner was found guilty, and, in consideration of his youth was sent to a reformatory for two years) the epileptic attacks apparently resulted from the administration of the Spanish fly, as there was no previous history of epilepsy either in the patient or her family, and there has been no return of the disease up to the present time.

A girl, aged 13½ years, went, on July 10, 1862, with her school companions on their annual excursion to Richmond, where she spent the day in feasting and sports. At 5.30 p.m., a short time before commencing the return journey, a schoolboy, who had been permitted to join the party, gave her a jam tart to eat, which contained a Spanish fly. About half-an-hour after eating it she was attacked with giddiness, pain between the shoulders, and a burning sensation in the throat. There was no time for her to complain to any one of these symptoms, as she had almost immediately afterwards to enter a railway carriage for the return journey, when she became insensible from having, it appears, fainted. She rallied before the train reached the Camden-town station so far as to permit of her being sent home in an omnibus, under the care of one of the older school-girls. On arriving home, her mother gave her two compound rhubarb pills, and then put her to bed. She passed a restless night, and on the following morning it was noticed that the abdomen was much distended, and that there was swelling and irritation of the vulvæ. She complained of bearing-down pains, and suffered much from nausea, which was soon afterwards followed by vomiting of blood, to the extent of half-a-pint. The bowels were acted on by the pills, but it was not noticed whether any blood was passed from them. The urine was scanty and high-coloured, but she did not complain of strangury until the following morning, July 12, when this symptom was first noticed, and it soon afterwards became very painful and distressing; and, with the occurrence of this symptom, she complained of a strong and disagreeable smell in the nostrils. The nausea and occasional vomiting of blood lasted for three days, and she continued to suffer from most of the other symptoms mentioned, though in a less degree, till the 29th inst., when, at 2 p.m., seventeen days after swallowing the Spanish fly, she had a sudden attack of epilepsy, which lasted a very long time, and was very severe. At 10 p.m. on the same day she had a second fit of epilepsy, complicated with hysterical symptoms; and during the following two days the fits continued to return in quick succession, but they subsequently became less frequent. The treatment adopted was alkaline salines, mild aperients, and warm fomentations to the vulvæ.

In consequence, however, of the continuance of the hysterical epilepsy, accompanied by ischuria, which seemed to be for the most part also hysterical, the patient was removed to the St. Pancras Infirmary, where she remained five weeks, during which time warm water and hot air baths were employed with some benefit as regards the suppression of urine, which is said to have been suppressed on one occasion for four days. On leaving the St. Pancras Infirmary she was admitted into St. George's Hospital, where she remained a fortnight, leaving on October 8. The chief symptom noticed during her stay in the Hospital appears to have been renal congestion.

The patient did not come under my notice again till October 15, when her face was observed to be very sallow and puffy; and a decided increase in her height and size was remarked. Menstruation had entirely ceased during the illness, although it had occurred on three occasions previously. The character of the urine had become normal, and it was passed without difficulty. Her sleep was bad, and she was at all times restless and uncomfortable. After remaining at home two days she was sent off to a convalescent institution

near London, where a general improvement in her health soon afterwards took place. The epilepsy entirely diappeared, and there was good sleep at night; but menstruation was not re-established till seven months had elapsed.

In commenting on this case it may be noticed that although various quantities of the powder and tincture of cantharides have not unfrequently been given with a felonious intent, yet neither Beck nor Taylor refer to any case in which one or more Spanish flies have been given whole. With regard to symptoms, it may be remarked that the disagreeable and nauseating smell in the nostrils, which was much complained of in this case, and which is referred to by Beck as one of the symptoms usually observed, is not even mentioned by Taylor. That the long-continued arrest of menstruation in this case appears to be an exceptional symptom, as it is not referred to, so far as I am aware, by any other writer on the subject; although the indirect influence of the poison on the womb is mentioned in one instance, observed by Dr. Pereira, in which abortion was induced; "probably due (as Dr. Taylor remarks) to excitement of the uterus, from the severe affection of the bladder; for there is no proof that this substance acts directly on the uterus to induce abortion." And lastly, that although when a case of this kind proves fatal, faintness and convulsions usually precede death, yet it is to be noted that the occurrence of these two symptoms in the above case possessed altogether a different signification; for the faintness was here almost the first symptom observed, instead of being a sequel to the more distinctive symptoms of poisoning by Spanish fly; whilst the convulsions, which presented the exceptional form of epilepsy associated with hysteria, did not occur till the patient had to a great extent recovered from the directly poisonous effects of the drug.

12, Park-place, Upper Baker-street.

ON

THE TREATMENT OF MALARIOUS FEVER.

By E. HARE,

Deputy-Inspector-General of Hospitals, Bengal.

(Continued from page 591.)

Absence of Inflammation in Malarious Fever—Poisoned Blood Stagnates in Capillaries—Venous Hæmorrhage—Rangoon and Terai Fevers—Generous Diet and Quinine vice Bleeding and Starvation.

I had another strong reason for examining carefully the old diaries of the General Hospital still existing since 1797—viz., to decide whether any proof of inflammation, either in the head or abdomen, could be found in the post-mortem descriptions recorded after deaths from fever. I made an analysis of every fatal case (about 700. See Medical Board's Report, p. 14), and reported the result to the Medical Board, and in not one of them was there described any result of inflammation from fever; whereas the post-mortem examinations for dysentery proved that acute inflammation was in it most common—viz., effusion of lymph, glueing the intestines together, and covering their surfaces; with effusion of lymph into the substance of the colon, causing thickened solid enlargement of it. From fever the only results observed were venous vascularity of the membranes of the brain, and effusion of clear serum into the ventricles, but never any trace of lymph on its surface. In the abdomen, also, nothing was seen but extreme venous congestion. The mesenteric veins enormously enlarged, and the liver and spleen gorged with venous blood, greatly enlarged, and when cut into so softened and disintegrated that they often fell to pieces in the hand. Indeed, Dr. Annesley strongly advises that in examining the abdomen of fever patients during life, the abdomen, liver, and spleen should be very gently pressed on, lest on account of this softening even a slight pressure might cause fatal injury. In fine, all the post-mortem appearances from fever were extreme venous congestion of the abdomen and brain, and passive effusion of serum into the brain and substance of the liver and spleen, thereby causing the softening of its texture. In fact, why may not the reasoning of Dr. Jas. Johnson, on the non-inflammatory nature of intermittent fever, be applied also to remittent, and thus to all those fevers which interchange symptoms with them?

"What kind of inflammation," he asks, "must that be which explodes, as it were, the moment the clock strikes a particular hour, and vanishes the moment the clock strikes another hour, and this for days together? What kind of inflammation is that which every day terminates in perspiration from head to foot, and yet is renewed after an interval of twenty-four hours with the symptoms as before, and so on? Do we see real and unequivocal inflammation pursue such a course? Never."

Are not the changes in remittent fever, from the accession every night to the remission in the morning, quite sufficient to warrant the application of this reasoning to it as well as to ague? Will bleeding, also, in true inflammations, if used at one hour of the day, relieve the symptoms, and two or three hours after cause death; and this every day, sometimes for a week or ten days? And yet we read in Medical works, as late as 1861, in descriptions of remittent fever—"It must be held in recollection that what are termed congestion, subacute, and acute inflammations, tend, firstly, to destroy life speedily, and, secondly, in their remoter results."(c)

All the phenomena of fever may, indeed, be traced to one simple fact, that the blood is in some way poisoned, circulates with difficulty through the capillaries, and stagnates particularly in the abdominal viscera, and the portal system of veins, which feel less of the assisting action of the heart, and is almost entirely dependent for its circulation on the attraction between the blood and the tissues, which the capillaries supply, to carry on the vital fluid. The blood seems, from the effects of the poison, to have lost this attraction, and to have lost in part its vitality. It is impossible, however, that we can describe, or, perhaps, even conceive, the process of any vital action, and particularly one like that in the capillaries, where secretion is effected, and the conversion of the blood into living flesh is performed; and it may be that the capillaries reject the poisoned blood, which comes to them to be digested and vitalised, as the stomach, acting under the regulation of the same system of organic nerves, rejects improper food. This would bring us back to the old theory of Cullen, spasm of the extreme vessels; but, however explained, the fact remains, that the blood does not pass through the capillaries readily, and is constantly stagnating, and nature also constantly striving to drive it on by paroxysms.

In some cases nature keeps the upper hand till the patient is cured, and we have then continued fever, which is always short and without danger. But in others, nature becomes at intervals exhausted with her struggles, and we have remissions and remittent fever. In the last, the poison paralyses nature *in toto*, congestion has the supremacy, the circulation nearly ceases, and, as in a very similar case, the congestive collapse of cholera, the patient is icy cold for sometimes thirty-six hours' continuance, and frequently dies without any reaction at all. This is the icy Algid fever of Algiers, and it is not uncommon in Burmah and Bengal.

The reaction which we notice in remittent fever is no more inflammatory, or requiring blood-letting, than the excitement described by Marshall Hall as following excessive blood-letting, and which is merely an effort of nature to overcome the stagnation of the circulation during fainting. It has been shown in the case above that bleeding may be carried to the extent of blanching the rest of the body and destroying life, and yet the malarious congestion remain, and the spleen be found gorged with blood. Also Dr. James Johnson, who practised bleeding so freely, confesses that you may open a sluice, and yet not relieve the congestions.

The poison of fever often circulates many days in the blood, being kept under by the vigour of the constitution, and producing nothing but a general feeling of weakness and ill health. It may even be subdued by the vital power, and be expelled without a paroxysm; but during this time if anything such as a debauch, exposure to the sun, over-fatigue, or any other depressing cause arises, the poison overcomes the *vis naturæ*, congestion ensues, and a struggle as Laocoon's with the serpent begins.

That this extreme engorgement and distension of the veins of the liver and spleen with blood may result in injury to the texture, and by effusion of the fluid portions of the blood into its cellular structure, cause injury to the secreting portion is certain, and effusion into the lobular cellular tissue, especially in chronic cases, by its pressure causes absorption of the secreting cells, so that too little bile is secreted, and the blood becomes impregnated with it, giving a yellow colour and a bilious smell to the perspiration. In the brain, too, congestion constantly causes death from coma, which is the most common form of death in fever, and yet so little tendency is there to true inflammatory consolidation and hepatisation, that we find cases of fever which have had symptoms of most extreme congestion recover rapidly in a few days, without a

(c) Martin, p. 319.

trace during the convalescence of any injury to either liver, spleen, or brain, which show no symptoms of injury the moment the congestions and paroxysms are stopped. Were there any real injury of the textures sustained by these organs we would have full intimation of it after fever, as we have after inflammation of the lung or kidney. The restoration to health would not be so immediate in fever as it is, especially under the quinine treatment, where weakening depletions are not used. In dysentery where there is inflammatory action, how tedious and what care does the convalesence require before the colon, injured in its textures by the inflammation, recovers its normal functions.

Also in the chronic forms of malarious congestion, described so well by Martin (d), we see the liver may be enormously enlarged, extending down to the umbilicus, and remain thus congested for three months; and yet on this patient dying of another disease the liver was found quite healthy. Several other cases are recorded by Sir R. Martin (e), where the liver and spleen continued greatly enlarged for some months, and yet this enlargement was reduced, and the patients quite recovered their health. In one case, p. 665, the waist was reduced in girth seven inches. Again, a case, p. 772, where the liver was, April 6, greatly enlarged, extending down to near the umbilicus, hard, and very painful on pressure. On his death, October 11, Dr. Martin says: "Separated from his general ill habit, there was no structural disease to cause death, or indeed, under more favourable circumstances, to preclude the recovery of health. The enormous spleens also arising from ague, which subside by change of climate or taking iron, are of constant occurrence. The spleen, in fact, in these cases, seems like an enormous sponge, which fills and empties itself without sustaining much injury to its texture. The chronic results of malarious disease point plainly to the fact that the tendency of the poison is to devitalise the blood and to depress all the powers of life. Frequent attacks of fever, or even long residence alone in a malarious climate, produce anæmia, a yellow pasty colour of the skin, emaciation, weak action of the heart and intermitting pulse, dry furfuraceous state of the skin, scorbutic state of the gums, the hair becomes a half-starved scanty down, which grows slowly, and the nails even cease to form regularly, there is inability to take exercise, and premature old age. Dr. Martin, p. 657, speaking of an originally plethoric officer, aged 32, who was treated for remittent fever with bleeding, leeches, calomel to slight salivation, with a continuous course of powerful purgatives, the diet consisting of sago and arrowroot, says:—"He is now in a state of complete anæmia, with a pale, bloated, and lemon-coloured complexion, and mossy-dry, scanty hair; the abdomen is doughy and inelastic; the skin dry, harsh, and constricted;" and he remarks:—"This is an example of simple, uncomplicated anæmia, resulting from remittent and intermittent fever, and their necessary (?) treatment by bloodletting, mercury, purgatives, and low diet. The patient had been under able and experienced Medical treatment, but the malarious influences proved too strong to be resisted even by his robust European constitution." "The very treatment," again observes Dr. Martin, "necessary to the cure of acute (malarious) disease, especially bloodletting, mercury, and drastic purgatives, along with the most rigid abstinence, tends powerfully, even in young persons, to produce a deficiency of red particles; while the same course of treatment, in persons of more advanced age, along with their more protracted exposure to malarious influences, are sure to diminish the old globules, and prevent the formation of new. The debility, in fact, of anæmia."

In Burmah, at Rangoon, where I witnessed malaria in its most intense forms, I had young, healthy patients so poisoned that their blood became as much decomposed as by the poison of a snake-bite, and hæmorrhage took place from the gums and nostrils; and in one man with an open bubo there was uncontrollable dark venous bleeding. These cases were of frequent occurrence, and the face and lips had a blue venous tinge, and the surface was unusually cool. In what is called hæmorrhagic dysentery, described well by Dr. Raleigh, in Calcutta, and of which I had numerous cases in Burmah, during the extreme congestion of the portal system in this Algid fever (for in reality it is that disease, and not dysentery), the blood at length oozes from the gorged mesentery through the coats of the bowel, and the patient dies, passing pints of pure dark blood, which will not coagulate, and his skin is like ice to the touch. Dr. Twining remarks:—"The altered appearance of the blood in many of these fevers, which arise from the exposure to the malaria of the jungles, is very remarkable, and merits careful investigation. Connected with this morbid condition of the blood there appears a disorder of the vascular system which favours prolonged and profuse oozing of blood from leech-bites."

Precisely the same oozing from leech-bites, which nothing would check, has been often remarked after snake-bites. The blood, in fact, is devitalised—putrid, as the old Physicians style it—and there is not one trace of the possibility of inflammatory action, but of the extreme opposite—viz., partial death from a deadly poison. I have strongly in my memory as I write this the case of an officer on his first arrival in Rangoon. His regiment was to move up the Irrawaddy; he was known to dread the climate of Burmah and its discomforts, and was supposed to wish to get away from his regiment. I was told there was nothing apparently the matter with him, for he had neither fever nor dysentery, and was a stout, tall, athletic young man. I found him lying in bed, quite sensible, but his face and lips were blue, his breath was cool, and his hand felt like a dead man's. I have in some cases distinctly smelt an earthy smell, like that from a corpse. I told his Medical attendant my conviction that he could not live, and, though he lingered some days in the same cold state, at last the blood found vent from his bowels, and he died with profuse hæmorrhage.

The post-mortem appearances in such a case as this are well illustrated by a case of Dr. Macpherson in the General Hospital:—

E. R., September 1, 1849, dysentery; died 15th of the putrid and passive form of the same disease. Dr. Macpherson remarks on the post-mortem, "There was a general oozing of blood from the mucous surface throughout to the anus. A large quantity of blood was found in the rectum; there was no general ulceration of the intestines." He again writes,—"This was a case of simple dysentery, which was yielding to treatment when fever supervened. After which the hæmorrhagic tendency developed itself."

There are many other similar cases in the General Hospital records, and the notice of a deep purple colour of the colon after death is very common, showing the extreme venous congestion of the colon and portal system. I cured several of these cases in the General Hospital, and it was to them I gave quinine in the largest quantity. In some cases the amaurosis and blindness, as well as deafness, resulting from the quinine, continued for two days, but both senses were eventually quite restored.

As instances of Terai fever I may mention Dr. L., the Residency Surgeon at Nepaul. He passed through the Terai incautiously, and died on his arrival at Benares, in a state of blue collapse, very similar to cholera. But the worst case I ever saw of Terai fever was Assistant-Surgeon W., a strong, active man, and celebrated for the fatigues he could undergo in shooting. He was delayed one night in the Terai, at the foot of the Mynee Tal hills, and on his arrival at Simla had all the symptoms of delirium tremens: so much so, that many thought, though he was a strict water-drinker, that he was suffering from intemperance. This strong, healthy young man, from a few hours' exposure, became blue and livid; he staggered when he attempted to stand, his hand and tongue were tremulous, his eye dull, and, though he moved about, he seemed unconscious of what he was doing, and died after some days of coma. The Surgeon who attended him was entirely unconscious of his danger, and prescribed only a mustard plaster for his stomach.

Simple stagnation of the blood in the veins of the portal system must rapidly render it loaded with effete matters, and very impure, without considering the addition of a poison; and Mr. Bransby Cooper says that in a similar condition of a varicose vein of the leg the discharge of such blood by puncture of the diseased vessels, does not produce any constitutional effect, the blood contained within the varicose vein being, to a certain extent, thrown out of the circulation, and retained in a half-stagnant state within them. The state of the circulation of the abdomen in the congestion of fever is like a small stream running through a large pool. On one side there is a current, while in the remote parts of the pool the water is stagnant; or rather it is like a large aneurism, where the blood passes in its usual course on one side, while the other is filled with clots and devitalised blood. It might be good practice, if we could

(d) Case, p. 757.

(e) The case mentioned of Capt. F., p. 372, is no proof of inflammation from fever, for he died of inflammatory dropsy in 1852, having had ague in 1837, without any intermediate relapse. Also, the lymph found fifteen years after his last fever was quite soft and recent.

relieve the oppressed liver by emptying it like a varicose vein of its stagnant blood, but when this blood is taken from the general circulation, where it is still healthy, it appears indeed to be depriving the patient of the little good blood he has left. For it must be remembered that the whole of this stagnant and devitalised blood has already been abstracted from the normal amount of the healthy circulation, being in itself in its effects on the system a huge blood-letting, or at least a large abstraction of vital fluid.

This stagnation of the blood in congestion of the spleen has been long known to produce anæmia, and doubtless it does. So, also, only in a more extreme degree, in congestion of the liver.

Dr. Martin observes (p. 662):—"The obstructed and depraved state of the blood, and consequent depravation of all the secretions and excretions, and of assimilation also, must not be overlooked. We sometimes find the heart impaired in its functions, through long and often continued engorgements of the great venous trunks, during the cold or congestive stage of remittent and intermittent fevers, and from the violence of the subsequent bounding reactions. Through the operation of these causes, associated as they often are with an anæmic condition of the system, the heart is occasionally found to be flaccid in its texture and dilated in its cavities, while its action is feeble and irregular. In every form of malarious fever, but more especially in the tremendous remittents of hot climates, it is manifest that the sensibility and energy of the entire nervous system are blunted and enfeebled,(f) and that the muscular system, voluntary and involuntary, is relaxed and enfeebled. Also, in consequence both of the lesion of the nervous system, and of the altered condition of the blood, so common to tropical fevers, and as resulting from their treatment."

It must, therefore, be considered a very great improvement, that considering the essentially weakening anæmic results of the poison of malaria, even when acting alone, that we now need not increase so largely these tendencies, as has hitherto been thought necessary, by our treatment with blood-letting, copious purging, and starvation. In my Calcutta experiment none of these were used, and good diet was given throughout, as much as the stomach would bear; and the quinine early and freely given, quickly removed the congestions, and consequently prevented the resulting depravation of the blood. The consequence was that there was no tedious convalescence, and the patients rapidly recovered, and seldom stayed longer than a week in Hospital. And moreover, I have never yet seen under this quinine treatment, as so often results with the other, that the acute form terminates in the chronic, that is, remittent ends in intermittent, with all its anæmic tendencies. But I will quote what others have written.

(To be continued.)

(f) It is probable that the constantly recurring congestions of Indians returned to a cold climate is partly owing to the injury, or partial paralysis, which the nerves which regulate the circulation of the abdominal viscera have sustained. This circulation being thus always feeble, the slightest accidents which increase the impurity of the blood, especially checked exhalation from the skin, will bring on distressing congestion. It seems as if these nerves were so weakened that they could not act on the vessels with sufficient power to circulate the blood onwards, and thus in some cases a state of chronic congestion results, with probably a varicose state of the veins, from repeated over distension. This is more reasonable than to suppose, to account for this fact, that in a cold climate the malarious poison still continues active in the blood so many years.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

WESTMINSTER HOSPITAL.

EPILEPSY, ATTENDED WITH A WELL-MARKED AURA PROCEEDING FROM A SPOT AFFECTED WITH PERSISTENT NUMBNESS, TREATED BY QUININE ONLY.

(Under the care of Dr. ANSTIE.)

The patient whose treatment under Dr. Anstie at Westminster Hospital is recorded in our Hospital Reports, *Medical Times and Gazette*, August, 1862, has continued under observation from time to time ever since. After the last illness recorded in that report, the man remained free from any symptom of epilepsy until a few months ago, when, having contracted syphilis during an absence from London, he was very incautiously and severely salivated, also much reduced by low diet. The fits then recurred with great severity, and the patient came up to town and presented himself at Westminster Hospital. Under the use of quinine (gr. ij. ter. die.) the chancres healed, and the fits entirely ceased in about a month. The man is now quite free from fits, and the numbness has again entirely disappeared from his left arm.

This case is one of great interest, as showing the hopefulness of a rational treatment in a disease so obstinate as epilepsy. When the case was first published Dr. Anstie said, "It is quite possible that the prodromata may some day return, but if taken in time it seems probable that the quinine would be sufficient to ward off the occurrence of a fit and to banish the local symptoms." As will be seen, the fits returned in great severity, and yet the same treatment put an end to them, at all events for a time.

In another case of epilepsy, the first of the series, recorded at the same date as Dr. Anstie's case, the patient was treated by belladonna and quinine, and had no fits for a year. They then returned with severity, and the patient is now again under care at the Hospital for Epilepsy and Paralysis, and no kind of treatment seems to have much influence in checking them.

NORTH STAFFORDSHIRE INFIRMARY.

LEFT HEMIPLEGIA, WITH LOSS OF SPEECH AND EPILEPTIC CONVULSIONS—RECOVERY.

(Case under the care of Dr. GOODAY.)

This case is forwarded to us as an instance of loss of speech, with hemiplegia on the left side. As a rule, when speech is lost, the hemiplegia is on the right side, and to this rule we have seen but one exception. It must be kept in mind that the following case, in degree at least, differs widely from those previously recorded by Dr. Hughlings Jackson and others as loss of speech with hemiplegia on the right. Moreover, the case is scarcely one of pure hemiplegia on the left, as the patient had at first weakness of both legs. Again, it seems that *voice*, as well as speech, was affected, so that the case altogether is rather a complicated one. Here, however, are the facts as recorded by an excellent observer, Mr. Dunnett Spanton:—

Alfred L., aged 22, single, potter; admitted into the North Staffordshire Infirmary, under Dr. Gooday, August 12, 1864.

Family History.—Father, a labourer, died at the age of 46 from "liver complaint;" mother at age of 56, from cancer. Three brothers died young, from convulsions; one sister at age of 14, from fits, which she had from infancy. Three brothers and a sister living, older than Alfred L.: one rheumatic, none had fits. Paternal grand-parents long-lived; maternal died early. One uncle "asthmatic."

Previous History.—Healthy when a child. Since he can remember has been laid up only once, about twelve months ago, with a bad foot. Has worked as a potter since the age of 15, being for a few months in the "dipping-house,"—*i.e.*, dipping the ware into the glaze containing lead. Never suffered any ill effects from it. Always lived well. During the last year has been in the habit of drinking beer to excess, getting drunk once or twice a week. Never had syphilis.

History of Illness.—On Friday, May 20, the patient saw a young woman in a fit, and attempted to carry her out. While doing so, he says he fainted, and lost consciousness until the following Tuesday, when he felt weak and was unable to walk. The arms were unaffected. He had frontal headache; did not lose his voice; during the fit was convulsed. Was attended by a Doctor, who blistered him and leeched the temples. Kept in bed three weeks, and at the end of that time could walk with some assistance, dragging both legs. The fits recurred frequently, never with a longer interval than nine days. In a fit about five weeks after the first, he lost speech entirely for an hour or two, then was able to speak in a whisper. At the same time lost sight for three days, and the eyes remained "weak" some time. He regained the use of the right leg, but the left remained paralysed up to the time of admission. For six days before admission the fits came on very frequently, lasting usually three or four hours. The left arm became affected about a week before; headache was severe and constant, chiefly frontal. Had constipation and anorexia; no retention or incontinence of urine.

On Admission.—Height, 5 feet 6 inches; well developed; hair light; eyes grey; no marks of struma or syphilis; counte-

nance florid, not flushed; unable to walk without assistance, dragging left leg, and unable to use left arm; right side unaffected; pupils of moderate size, equal, sensitive; sight good except when fits occur; much severe frontal headache; intellect clear during interval of the fits; occasional vertigo; no diplopia; voice scarcely audible, after a fit quite lost; memory very bad, so that sometimes he is unable to find words to express clearly his meaning, but makes himself understood by signs. Mouth slightly drawn to left side; tongue deviates a little to right side, furred, and moist; bowels confined; appetite poor; pulse slow, regular, soft, moderately full; heart sounds normal; breath sounds also; skin moist, warm; left side feels colder to the patient; no incontinence of urine.

Ordered broth diet, a blister to the nape, and white aperient mixture.

August 13.—Had a fit soon after admission, lasting three hours. During the fit there was clonic spasm of the left arm and leg, the mouth drawn to left side, moving constantly; jaws quite fixed, so that he could not separate the teeth at all; insensible and specchless; pupils dilated, left larger than right. Ordered an aloetic enema.

From this time the fits recurred about once in three days, similar in character to the one described. After a fit he complained of much frontal headache; his memory was much worse. There was trismus for several hours usually, and when this passed off he was still almost speechless.

29th.—Ordered iodide of potassium and sarza, and full diet.

September 3.—Had several violent fits, with very little intermission, lasting several hours. During the fit both sides of the body much convulsed, the left always worse. Trismus lasted for upwards of twenty-four hours, and he was speechless for a longer period, being able afterwards to reply in a low whisper. Never said "no" for "yes," but was at times at a loss for words. Ordered to take one-sixteenth of a grain of bichloride of mercury in decoction of bark thrice daily.

9th.—A seton was put in the nape. From this time the patient gradually improved; had no fit; speech slowly returned, and headache entirely ceased.

30th.—Able to walk well, without any dragging; quite free from pain; speech and voice better than for many weeks; all paralysis gone.

On October 8, left the Infirmary well.

Since the above report was written, the patient has returned on account of some more fits having occurred, but comparatively slight. He is still under observation.

CASE OF REFLEX (?) PARALYSIS WITH EPILEPTIFORM CONVULSIONS—DEPENDING ON THE PRESENCE OF WORMS. (?)

(Under the care of Dr. ARLIDGE.)

There are very different opinions held as to the relation of epileptiform attacks to irritation from worms, dentition, etc. Worms are so common in children that their presence in epileptic children does not go for very much. That the fits should cease after they are expelled does not in any way negative the idea that there may be organic disease of the brain as well. In artificial epilepsy, as in Dr. Brown-Séquard's epileptic guinea pigs, there is a persistent organic lesion of the nervous system, and yet a temporary exciting cause brings on the fits. Moreover, the kind of epilepsy this child had is just that which frequently follows injuries to the head, or, in fact, many changes which damage the hemisphere, especially its surface. There can be no question as to the propriety of the treatment, but it is to be feared that convulsions, which were so definite, being followed by paralysis on one side, will sooner or later appear again. Indeed, it is hard to say when an epileptic patient is cured. Sometimes the fits return after the interval of a year or more. Mr. Spanton has acted wisely in not heading his case as one of cure.

Alice D., a child 10 years of age, was admitted into the North Staffordshire Infirmary, under Dr. Arlidge, on September 20, 1864.

Family History.—Father rheumatic, a joiner, dissipated. Mother died of phthisis. One brother died in infancy from convulsions; one living, strong. Other relatives healthy.

History.—No convulsions during teething. When four years of age had an illness, when she was sick and convulsed, but had no paralysis: was quite well in a fortnight. Never had any other illness until a year ago, when she was suddenly seized with a fit while playing. She was unconscious for three or four days, lost the use of the left side, and was "blind." During the following fortnight had several similar fits, after which time they ceased until the present attack.

The present attack began about a week before admission, the fits having been very frequent. She was said to have been blind on September 14 and 15. A large lumbricus was brought stated to have been passed by her three days previously.

On admission delicate looking; head small and narrow; eyes brown; hair nearly black; teeth very irregular; of morose disposition; countenance dull and stupid; replies to questions slowly, but intelligently; no headache; pupils of moderate size, equal; eyes not congested. Says "her left arm and leg have no life in them." Left arm and leg paralysed; no reflex action on tickling the sole of the foot. Sometimes she can use the left arm and leg, but at others they are powerless. Right arm and leg moved freely; reflex action perfect; face slightly drawn to left side; tongue deviates to left side; no ptosis; tongue white, furred, moist; papillæ very red and prominent; appetite bad; bowels confined; slight thirst; pulse quick, moderately full, soft; respiration calm; chest-sounds healthy. Passes stools and urine in bed, but not always involuntarily. Skin moist; temperature in right axilla, 97° F.; in right ham, 93° F.; in left axilla 97° F.; in left ham, 90° F. Urine free from albumen; copious phosphates, pale straw-coloured, sp. gr. 1010, acid; crystals of phosphates under microscope; no casts. To take of calomel and scammony powder ten grains, and a mixture of half an ounce each of decoction of aloes and infusion of quassia every morning. Broth diet. Fits came on about every hour, the first soon after admission. During a fit quite unconscious; the left side tremulous, right side rigid and flexed. Head turned towards left side; mouth and eyes much drawn to same side; mouth open, constantly moving, sometimes catching the tongue; pupils dilated, left more than right; eyelids open, strabismus; tongue not protruded; very little frothing at the mouth; does not cry out; flushing of face; no distinct trachelismus. Dull and heavy after a fit, often remaining so till the next fit comes on.

23rd.—Fits have recurred night and day at short intervals; sometimes two or three have occurred almost without intermission, followed by a longer interval. During the fit general muscular rigidity; she stretches herself out, and clonic convulsions ensue. An attempt to rouse her usually brings on a fit. Bowels have acted freely, but no worm has passed. To take a grain of calomel every four hours.

25th.—Three fits during the day, each lasting about five minutes. Only partially conscious during intervals. Answers slowly sometimes to questions in monosyllables; at other times, nods in reply. Expression dull. Pupils rather small, equal. No pain or heat of head. Pulse 90, soft. Takes food ravenously, swallowing it without mastication. Urine generally passed involuntarily.

26th.—Seven fits.

27th.—During fits left side extended and rigid; right leg and arm firmly flexed; mouth and eyes drawn to left side. Pupils in fits dilated; left more than right; insensible; immediately after fit contract to a small size and are equal. Can move all her limbs after a fit, but left side very imperfectly. The fits last less than a minute. Food rejected. Bowels open. To take a mixture containing two grains of iodide of potassium and quassia thrice daily, and cod-liver oil.

28th.—Fits very numerous. When asked how she is, says she "wants to go home." Cannot take the oil.

30th.—Fits of shorter duration, but numerous. Urine and motions passed in bed.

October 2.—Fits much the same. To take five grains of santonine.

3rd.—Bowels open; no worms passed. Appetite improved. No headache. Fits as before. Continues taking the calomel powders and mixture.

4th.—Fewer fits yesterday; none this morning. More cheerful. Can move left side freely. Passes urine and fæces in bed, but not involuntarily.

5th.—Passed a moderate-sized lumbricus. Only one fit since yesterday morning.

6th.—Much improved. No fit. Uses limbs freely. From this time she gradually improved; the paralysis entirely disappeared, the patient regained her cheerfulness, and on October 21 she left the Infirmary apparently quite well, no fit having occurred since the last worm was passed.

YELLOW FEVER IN BERMUDA.—Four Medical officers who have been on special service in Bermuda—Drs. Moffatt, Ferguson, O'Brien, and Harrison—arrived at Montreal this morning (November 17), and report that the yellow fever has nearly disappeared from the island.—*Montreal Gazette.*

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Medical Times and Gazette.

SATURDAY, DECEMBER 10.

THE NEW INDIAN WARRANT.

That no amalgamation of the British and Indian Medical service is to take place is definitively settled by the provisions of the new Indian Warrant which we published in our last issue, and it is feared that this decision will afford keen disappointment to a portion—we trust a small portion only—of the Medical officers of the Indian service. For ourselves, we regard it rather as a matter for congratulation. When we call to mind the grievous ill-effects and the glaring injustice which have been inflicted on the officers of the Indian military service by amalgamation with the British force, and when we further remember the line of treatment which the Horse Guards has pursued towards the Medical department under its own immediate control, we cannot but think that the Indian Medical service has reason to be thankful that the long-talked-of scheme of amalgamation has not been carried out, and that there is to remain, as heretofore, a separate independent establishment. Had the amalgamation scheme been sanctioned, it is certain that it could not have been carried into effect without entailing a certain degree of hardship and injustice on the British Medical service, as thereby promotion, already too slow, must have been still further retarded, and a large number of new competitors introduced for the few loaves and fishes which belong peculiarly to the British service. A degree of jealousy would thus have been generated towards the Indian Medical officers, who would not unnaturally have been regarded as intruders and interlopers. One of the chief objects aimed at by the advocates of amalgamation has been attained without that process by the rule in the new Warrant which confers Royal commissions in place of the local ones hitherto granted. By this the status of the Indian Medical officer is raised, and he is placed on an equality with his brother Medico in the British force, not only in India, but in all parts of her Majesty's dominions.

As a separate and local establishment, the Indian Medical service has worked well. It has achieved no small glory for itself, and has produced men of whom it may well be proud. We need only mention the honoured names of Annesley, Twining, Roxburgh, Ainslie, Royle, Russell, Professor H. H. Wilson, A. Webb, Raleigh, Griffith, and Mackinnon amongst the departed, and to Martin, Morehead, Falconer, O'Shaughnessy, etc., amongst the living—to say nothing of those many able men still in the service who are labouring to advance the cause of Medical and natural science. The local Indian service may also point with just pride to its periodical literature, to the *Transactions* of the Medical and Physical Societies of Calcutta and Bombay, to the *Madras Quarterly Journal of Medicine* by Rogers and Lorimer, and the later series by Cornish and Montgomery, and last, but not least, to the valuable *Indian Annals of Medical Science*, by Drs. A. Grant, Bedford, and Norman Chevers—periodicals which we have no hesitation in saying reflect the highest credit on the intelligence and assiduity of the Indian Medical officers generally. To have swamped a service which has achieved such things as these by amalgamating it with the British service would, it appears to us, have been a matter for deep regret. As a local service, let it but persevere in the same high course it has hitherto pursued, and it will be acknowledged on all hands to be one of the most intelligent and respectable, as well as it now undoubtedly is, the best paid Medical military service in the world.

The clause in the new Warrant which substitutes a specific period of service (twelve years) for that of seniority in attaining the rank of Surgeon is a step in the right direction, and will be hailed with satisfaction by all. Under the old *régime* it was no unusual thing to meet with grey-headed Assistant-Surgeons of seventeen and eighteen years' standing, and, although it may deprive the juniors of the doubtful pleasure of looking out for "steps" by the retirements, deaths, and dismissals of their seniors, thus depriving that interesting document, the Army List, of the interest with which it was formerly invested, the advantages gained by the new rule are of too substantial a character not to be recognised and appreciated by all.

We fear that we cannot award the same meed of praise to the abolition of the Medical funds as regards those who may hereafter enter the service. These funds were amongst the chief attractions of the old service, as it afforded a means not only of increasing largely retiring pensions, but of providing handsomely for "the fatherless and the widow." The payments made to these funds, being deducted from the monthly pay before it was issued, were in the majority of cases hardly felt, and where so, they were mostly counterbalanced by the prospective advantages. It was a measure of prudence which should have had the warm support of Government, instead of being discountenanced and abolished. We allude especially to the annuity branch. Surely Government, without entailing a single farthing's extra expense to the State, should have not only allowed, but encouraged, any scheme by which Medical officers out of payments made from their own pockets might materially increase the rate of retiring pensions, which, though liberal as they at present stand, are still insufficient to support at home a man with a family in that state of *otium cum dignitate* which his long service in India might justly entitle him to expect.

One clause in the new Warrant is calculated to give rise to alarm in the minds of the Indian Medical officer. We allude to that which calls upon the local authorities to consider what appointments may be properly filled by uncovenanted members of the Medical Profession. In the exercise of this discretion most sincerely is it to be hoped that a sense of justice may predominate over niggardly economy. It would, indeed, be hard upon Medical officers in the service if the authorities either at home or in India were to hold out the prizes of the service to private Practitioners, whose sole claims may be that they are friends or relatives of a local Governor or Member of Council, in case they emigrate and establish themselves in India, there to monopolise the good things which have hitherto been regarded as rewards for talent and energy on the part of local Medical officers. Such a course would be as unwise as it would be unjust. In the meantime we may be satisfied at having at the head of affairs, as Governor-General, a man of such enlightened and just views as Sir John Lawrence, to whom, if rumour speaks true, much of the present new Warrant is due.

QUININE.

The practice of Medicine had its origin in empiricism, and by empiricism it is nourished still. Empirical were its foundations in the days of old, and empirical it is now. Had we the courage to make this declaration *vivâ voce* in Medical society what a chorus of indignant remonstrance it would call forth!

The practice of Medicine, we should be told, is scientific, it is rational, it is philosophical, it is eclectic, it is—what you please that sounds fine, but empirical! Fie on the word; it's a libel on progress and the nineteenth century! Did we preserve our presence of mind sufficiently through the storm, we should reply, There is some truth in all that you say, gentlemen; nevertheless we repeat "the practice of Medicine is empirical." We grant that there is a science of Medicine; physiology and pathology are scientific, and through them the diagnosis of disease is scientific. Our knowledge of the causation of disease, our recognition and comprehension of morbid conditions, and of the various forces and elements at work in the production and progress of diseases have all made great advance, and so far we have the right to call ourselves scientific; but when we come to the *treatment* of disease, to practical Medicine, we say that we are empirical still, or perhaps it would be more exact to say that the *practice of therapeutics* is still very largely empirical, for the term "practical Medicine" is often used to express both the science and art of Medicine. Let us speak, then, of therapeutics. Of how many medicines can it be said that we know *how* they act on the system?

It is true that, to use the words of Dr. J. Y. Simpson, "there has not only been, through the instrumentality of morbid and histological anatomy, and of pathological chemistry, a great increase in our knowledge of the nature of diseases, and, through physical diagnosis, a great increase in our knowledge of the discrimination of them; but changes have taken place in the Materia Medica within the last twenty or thirty years which have added much to the simplicity as well as the efficacy of the means and weapons by which practical Medicine combats the different diseases that occur in the bodies of the sick." New and valuable medicines have been added to the list, old ones have been purged of their grosser and useless parts, and medicines are generally used in simpler and purer forms than of old; but still how many are given only because we know from experience that they will produce, or conduce to, the results we desire? How generally do we give a medicine in such and such a condition simply because we know, empirically, that it will benefit, but why or how it does so we cannot say? Of course we are aware that examples may be adduced against us. In anæmia we give iron, or other blood-tonics, and cure, and we know why we give them, and how they cure; in ascites, or other forms of dropsy, we give elaterium, or some other hydrogogue cathartic, and we know how they relieve the morbid condition present; in hæmorrhages we give gallic or tannic acid; in diarrhœa, astringents; in constipation, purgatives; in certain forms of dyspepsia, nitro-muriatic acid; and we know, or think we know, how it is that our medicines relieve. But are not such instances exceptional, and empirical prescribing the rule? For a proof of this, let any one listen to a discussion on the treatment of any, however well-known, disease at one of our Medical Societies, and will he not hear the most varied and even opposed modes of treatment recommended? Even in the use of external applications for the cure of disorders of well-known local origin this is the case. We happened lately to be present at a discussion at one of the Medical Societies in the metropolis on the treatment of scabies—a disorder arising from a perfectly ascertained local cause; and the variety of methods of treatment recommended was simply charming. The only thing more delightful was to mark the candour and cheerfulness with which gentlemen flatly contradicted each other. Authority the first recommended sulphur ointment, applied in various ways, and thought most highly of the Hôpital St. Louis method—"the two hours'" or Hardy's treatment,—spoke of the late increase in the frequency of scabies, and referred to the opinion of an eminent dematologist that it is to be traced to the Crimean war. Authority No. 2 thought Hardy's treatment cruel, and said it was not known to be efficacious, for no man who had once endured it would ever return to say he was not cured—he would prefer going anywhere else. But No. 2 particularly wished to direct attention to the disinfection of the patient's clothes—they should be submitted to a heat of 200°. No. 3 thought if that disinfected the clothes it might also be used to cure the patient, and as the Turkish bath could be raised to that temperature, might it not be made available to cure the disease? We heard this with some awe, and with lively feelings of gratitude for the happy chance that had led us to attend the discussion, for in our ignorance we believed that the living human body refused to be itself raised to the temperature of the bath, and we had thought of trying one; but we know that *our* skin will not bear anything like a temperature of 200°, and we should certainly have fallen a martyr, and been parboiled in our own perspiration. No. 4 spoke from experience of the prevalence of scabies in the Crimea, and had cured it with sulphur ointment, to which he had added fine white sand. No. 5 had had a year's experience of the treatment at the Hôpital St. Louis, and denounced it as cruel and barbarous in the extreme; if it cured the itch it produced other diseases of the skin, and the last state of the patient was worse than the first. No. 6 had found iodide of potassium ointment succeed where sulphur ointment failed. No. 7 had *once* seen some men undergoing Hardy's treatment, and thought they rather enjoyed it than otherwise, and he flatly contradicted the assertion that it was cruel or barbarous. He had not been in the Crimea, but he had "made inquiries," and positively denied that itch was prevalent there. One recommended soaking in Harrogate water; another said it was of no use whatever; and one, that any simple oil or grease, with a few drops of an essential oil, was an efficient application; and so the discussion went on. It was purely empirical; the point which we had hoped to hear discussed was never even fairly raised—viz., whether sulphur is really at all necessary for the cure of scabies? whether all that is required is not grease to asphyxiate the acarus and soften the epidermis, and then friction to remove thoroughly the dead acarus and its ova? We learnt nothing of the *rationale* of the treatment from the discussion, and, be it observed, the disputants were not country apothecaries, but London Physicians and Surgeons. We could not help thinking, not "c'est magnifique," but "c'est bien amusant, mais ce n'est pas la science." And if we go to men, or books, for the treatment of internal disease, what do we find? Take rheumatic fever: one treats it with calomel and opium, one with opium only, one with lemon-juice, one with nitrate of potash, one with alkalies, one with quinine. Or scarlet fever: A swears by ammonia; B by quinine from the commencement; C adopts a regular system of treatment by emetics, purgatives, and quinine; and so on, we might fill our columns with examples of this kind, and to very little purpose; while we can, much better and more pointedly, illustrate the advance and the defects of therapeutical knowledge by confining our attention to one medicine only—quinine. How infinitely superior it is to the "bark" of old; it is its essential part, purged of all gross encumbrances—how much more "elegant," simple, and manageable! how much more useful and potent! It is the very soul of the drug; but what do we really *know* of it? of its mode of action, of its powers for good, their limits, or extent?

Every point that we would call attention to in the practice of therapeutics may be illustrated from the history of the use and disuse of quinine. Sir Henry Holland, in one of his admirable little essays,(a) says:—"Conclusions, requiring for their authority a long average of cases, carefully selected, and freed from the many chances of error or ambiguity, are often promulgated and received upon grounds barely sufficient to warrant a repetition of the trials which first suggested them. . . . During the last twenty years, omitting all lesser instances, I have known the rise and decline of five or six fashions in Medical doctrine or treatment." For an illustration of this, read the valuable papers we are now publishing

(a) "Medical Notes and Reflections," by H. Holland, M.D., etc. 1839. P. 2.

by Inspector-General E. Hare, on the treatment of malarious fevers. Years ago Lind, Jackson, and others pointed out that bark was the only trustworthy remedial agent. Dr. Jas. Johnson went to India in 1804, found in one case that bark failed to cure—not because its action was inefficient, but, being vomited, its action was not obtained; he tried bleeding, and the patient recovered; at once he rejected altogether the use of bark, and inaugurated a system of treatment by copious depletion, ℈j. doses of calomel, and mercurial inunction to salivation. This method rapidly displaced entirely the treatment by bark. Now, again, quinine is recommended. Mr. Hare's experience and teaching is—"Quinine may also be given in the largest doses, whether there are head symptoms, delirium, coma, or pain in the liver. Whether it be in the hot stage or cold, quinine is not only safe for all forms of malarious fever, but it is certain cure; and in cases where there is danger to life, the earlier and the larger the doses of quinine which can be given to the patient the better. Vomiting and cinchonism were my only checks for continuing it in full doses."

These are almost the very words of the great authorities for the employment of bark eighty years ago. Dr. Clarke, who practised in Calcutta in 1768—1771, wrote:—"As soon as the intestinal tubes have been thoroughly cleansed, the cure must entirely depend upon giving the Peruvian bark in as large doses as the stomach will bear, without paying any regard to the remissions or exacerbations of the fever." Dr. Lind says:—"Although I annually prescribed upwards of 140 lbs. of bark, I never observed any bad effects. The greatest—indeed, and the only—evil arising from the bark that has fallen under my observation has been to excite sickness and vomiting during a paroxysm." But all their teaching was utterly forgotten in favour of depletion and salivation. After a time, the frightful effects of the profuse salivation in vogue led, chiefly through Sir Jas. Annesley, to a more moderate use of mercury; but *en revanche* depletion was still more freely used, and culminated under Dr. Twining. His use of the lancet was indeed "heroic," and the results as truly tragic. Quinine began to be used very cautiously and gingerly about 1839; but the treatment of Clarke, Lind, etc., remained forgotten till Mr. Hare happily inherited some of their works in 1843, when he was practising in a district in which malarious fever reigned in the most deadly form, and he had the courage and good sense to use quinine as they had used bark. With what splendid results our readers must gather for themselves from his papers, which we earnestly recommend to their notice: they are full of interest and instruction. Mr. Hare finds quinine, then, *the* cure for every form of malarious fever—for every form, indeed, of Indian fever, according to him, as we find it *the* cure for malarious fever at home; but how or why it cures we know not, nor why it fails when, as sometimes happens, it does fail.

From Mr. Meller, the Surgeon to Dr. Livingstone's expedition, we learn that in the treatment of the fevers of the Zambesi it seems to fail altogether;—why? is the fever not truly malarious? or is it caused by a new kind of malaria—a malaria not amenable to quinine?

If we look back into Medical writings of the last century, we find that bark, bark and ammonia, or bark and soda was used in many diseases in which *we* have not been accustomed to give quinine, but for which that medicine is now being largely recommended. It is, indeed, very remarkable how widely the use of quinine is being extended. Mr. Peter Hood(b) relies entirely upon it, after an emetic and a purgative, for the treatment of scarlatina in all its varieties.

Dr. Pursell(c) also "has obtained a remarkable amount of success" by relying on quinine or cinchonine for the cure of scarlatina in its mildest and its very worst forms. It is his sheet-anchor in the treatment also of measles, small-pox, hooping-cough, diphtheria, croup, laryngismus, stridulus, chorea, erysipelas, rheumatism, acute and chronic, gout, and neuralgia. In his treatment of some of these diseases, quinine appears to us to play but a very secondary *rôle*; thus, in erysipelas and rheumatism opium is largely given, to the full as freely as the quinine; and in both rheumatism and gout alkalies are freely administered. In the exanthemata, however, quinine is *the* remedy with him.

We have heard of cases of acute pericarditis and bronchitis being "cured" by the early and liberal use of quinine; but we need not quote books nor adduce examples to show the number of diseases for which quinine is regarded now as a remedy, the experience and the memories of our readers will supply proofs enough. But how is this extended and extending use of quinine to be explained? How is the medicine supposed to act? Dr. Ainstie speaks of quinine as acting by promoting nutritition; it "improves the quality of the blood, and strengthens the systemic circulation." We suppose he would say that it acts as a stimulus on the nervous system; is it thus that it cures scarlatina? Some authorities trust only in ammonia in that malady, and ammonia is a "pure and powerful stimulant." But then Dr. B. W. Richardson would give a very different explanation of the action of ammonia: he would say, if we remember rightly, that it benefits by increasing and preserving the fluidity of the fibrine in the blood.

Is it given because of its power against malaria? It has often been pointed out that we may use remedies as a test of the nature of diseases. Sir H. Holland, for instance—not to quote older and more hackneyed authorities—in the work we have already referred to, speaking of the value of bark in anomalous varieties of intermittent disorders, says, "it enables us to denote and class together symptoms apparently the most remote in kind, but which could not thus be relieved unless depending on some common cause." Shall we believe, then, that the value of quinine in so many diseases depends on their having a common origin in malaria? Dr. Handfield Jones believes that malaria plays a much more general and important part in the causation of disease than is generally believed; and in the admirable "Report of the Medical Officers of Health of St. George's, Hanover-square," for the year ending March 31, 1864, we find the following observation:—"We will content ourselves with one practical remark about the maladies which cut off such frightful numbers of elderly people in January and March. Cold is the great agent, but cold is not all. People 'catch cold' who are never exposed to it. There is a malaria in addition to a low temperature, and in all probability a more liberal use of quinine would render the other remedies employed more efficacious." We can scarcely think, however, that we are verging on a universal malaria theory of Medicine.

Is quinine given in all these diseases as an anti-periodic? This seems to be Dr. Pursell's reason for his use of it. Are we about to swallow whole the "chrono-thairmal" system—the "great therey of perriodeecity and remittency of all diseases"?—that monstrous and absurd expansion of the old, old fact that in all diseases there are more or less marked evening exacerbations, and the well-established law of diurnal ebb and flow, so to speak, of vitality in the human system, as inflated and expounded by Dr. Sampson and the well-known Physician of whom he is the representative rather than the caricature?

Explain it how we will, and be it remarked that the two last suggestions will not explain *how* quinine acts, but only the theory on which it is given—explain it how we will, or explain it not at all, it is a fact well worthy of study that the field of disease in which quinine is held potent for remedial power is largely extending. We commend this fact to the careful observation and thought of our brethren. Fashion, hasty generalisation, exaggerated deduction, etc., may partly account for it, but there must be some basis of truth, and this we ought to strive to draw forth by renewed, careful, and scientific observation and research.

(b) "The Successful Treatment of Scarlet Fever, etc." By P. Hood. London: Churchill. 1857.

(c) "Exanthematous Diseases: their Rational Pathology and Successful Treatment; to which are added Remarks on Hooping-cough, Diphtheria, etc." By J. Pursell, M.D. Also a pamphlet on "Rheumatism, Gout, Sciatica, and Neuralgia," by the same Author. London: Churchill and Sons. 1864.

THE WEEK.

CONTAGIOUS DISEASES BILL.

We understand that some of the naval authorities at Portsmouth have commenced to exercise the powers given under the above Act of Parliament, by taking up and removing one woman, who was suffering from a loathsome state of disease. A Royal marine, we believe, was brave enough, and tipsy enough also, probably, to be courting her dangerous favours at the time of her removal by the police. We hear that the police are very vigilant in making the nature and terms of the Act known, and in taking suspected women to the civil Hospital; indeed, we are assured that some of the keepers of brothels have voluntarily taken their females to the Hospital, fearing that they might incur a penalty by retaining diseased prostitutes on their premises.

TYPHUS IN THE METROPOLIS.

We do not know how it is to be accounted for, but there seems no doubt that continued fever is on the increase amongst the population of London. We do not believe that the poor are worse fed, worse clothed, or more crowded together than they were a few years ago, or that their dwellings are worse ventilated and drained; but it seems the fact that fever, which we almost hoped had been got rid of for ever, is becoming again one of our settled institutions. In the parish of St. Marylebone last month there were sixty-four deaths returned from continued fever, whilst from scarlatina there were only fifty-three. If the number of admissions at the Fever Hospital are to be considered a fair index of the fever rate of London, a letter from the secretary of that institution which lately appeared in the *Times* opens a gloomy prospect for the coming winter. The writer states that:—

"Ever since the end of 1861 typhus fever has been epidemic in London to an unusual degree. For the three years preceding 1862 the number of patients admitted in this Hospital averaged 543 only per annum, while the number admitted in 1862 and 1863 averaged 2402 per annum. Large as this number is, it has been exceeded by the admissions of the present year. From the 1st of January to the 30th of November, 1864, they number 3247. During the month of November alone no less than 345 patients were admitted—a larger number than was ever admitted during the same period at any time since the establishment of the Hospital in 1802.

"Although fever is chiefly confined to districts inhabited by the poor, the Hospital has not been without its use to localities where the wealthier classes reside, as may be inferred from the fact that 227 domestic servants and 59 shopmen and warehousemen have been removed during the year from private houses and mercantile establishments to the wards of this Hospital."

A JURY OF MATRONS.

We think it is Charles Lamb who says somewhere that we English might consider ourselves a gallant, civilised people were it not for the fact that in our country a woman is occasionally *hanged*. We are not going to discuss the propriety of capital punishment, or the statement that if it is right in the case of men, it must be equally so in that of women. All we say is that the old mode of executing women was infinitely more to the credit of the modesty and decency of our Anglo-Saxon ancestors than the present one of public strangulation is to our own. *Fossa* and *furca*, drowning for the woman, hanging for the man, was the law of the old time. Every physiologist knows that effects are produced in the hanging of women which it is a public scandal should be openly exhibited. Of course we do not intend to advocate a return to the *fossa*, but we assert that, if a woman has forfeited her life to the law, some different mode of putting her out of existence than hanging should be devised. We commend the subject to the consideration of the Commission now sitting on the subject of capital punishment. Another disgrace to our civilisation which we had hoped had disappeared from the practice of our law courts is that of empanelling "a jury of matrons" when a female prisoner pleads pregnancy in bar of execution. This tragical farce was absolutely enacted on December 6, 1864, in the Criminal Court at Winchester, presided over by Mr. Justice Byles. In this case the sapient jury came to the conclusion that the wretched murderess Cecilia Baker was "quick with child," and she has accordingly been respited. But if any of our readers are curious on the subject, they have only to refer to Professor Taylor's work on Medical Jurisprudence to learn, as might be expected, that the guesses of the matrons are as often wrong as right, and that in numerous cases the lives of pregnant women have only been spared, and the judgment of their female examiners reversed, by the active interference and representations of Medical Practitioners. It is a scandal to the nineteenth century that the law on this subject should be allowed to remain in its present state. In the first place, the jury is to be chosen "*de circumstantibus*," from married women accidentally present in court, and secondly the law makes the previous occurrence of quickening the test of the validity of the prisoner's plea. The women are empanelled to try "whether the prisoner be with child of a quick child or not." It is not on the proof of pregnancy, but on that of the woman having quickened that her life turns. Our physiology and our law are equally barbarous. It is so well known, not merely to physiologists, but to the public generally, that many women never experience the sensation of quickening at all, that quickening takes place at various periods of pregnancy in different women, and so far from its being the only test of the life of the child, that the embryo undoubtedly bears a separate existence from the earliest period of conception,—that the existence of such a statute is as inexcusable as it is disgraceful. With regard to the jury of matrons, even our American cousins, with all their fondness for delegating the duties of Medical Practitioners to the female sex, have set us an example in this matter. In the State of New York, for instance, if a convict plead pregnancy in bar of execution a jury of six Physicians are appointed to examine her, and are held responsible for the opinion they give.

FROM ABROAD.—PROPAGATION OF PUERPERAL FEVER BY ACCOUCHEURS—M. PETER'S PLESSIGRAPHE—VACCINATING DIRECT FROM THE COW.

M. Grisar has recently brought before the Brussels Academy of Medicine the subject of the communication of puerperal fever through the medium of the accoucheur. Although there is nothing new in the fact, it is of importance that it should be reiterated from time to time, in order to caution those who, unwarned, may prove curses instead of blessings to patients who seek their services. In place of recalling the testimony of the most celebrated accoucheurs on this point, we may cite M. Grisar's personal experience. In December, 1842, he delivered a woman with the forceps who died of puerperal fever on the second day; and between then and the 19th of the following March, 16 out of 64 women delivered by him were attacked by puerperal fever, 11 of the number dying. As he found the disease did not prevail in the practices of other Physicians, he came to the conclusion that he had been the means of communicating the contagious principle of the disease, and therefore took every possible precaution. Until the end of 1862, therefore for twenty years, he did not meet with another case; but at the end of that year he had a fatal one; and between December 5 and January 26 following, of 9 women delivered by him 8 became the subjects of the disease, and of these 4 died. He had taken every precaution as respects ablutions, clothing, etc., but it was not until after he had suspended practice for a month that the disease ceased to appear among his patients. M. Guerin, commenting upon the above facts, observes that Chomal always called in Baudelooque to his wealthy patients, who, unattached to any maternity, he had found to be the only accoucheur of his day in whose practice puerperal fever did not appear; and more than one Practitioner, renowned for his knowledge and talent, has acquired among the public

a terrible reputation for the calamities which attended his presence. M. Guerin adds that he himself, as well as various other Practitioners, have, during the prevalence of epidemics of puerperal fever, experienced symptoms which could only be explained by the presence of a poisonous miasm, and which may doubtless be transported, notwithstanding ablution, change of clothing, etc. Such persons suffer from general uneasiness, fœtid breath, eructations of a peculiar odour, and somewhat loose and strong smelling stools. They should observe the greatest cleanliness, freely breathe the fresh air, and repeatedly purge themselves. When the fever occurs in their practice they should make it a solemn duty to abstain for a while from attending other cases.

M. Peter has invented a new instrument, with which he believes percussion can be more precisely performed than at present, and which, resembling Laennec's stethoscope both in form and principle of construction, he terms a *plessigraphe*. Percussion, as practised upon the fingers or a *plessimètre*, is extended over too large a surface, involving several organs and emitting a mixed sound, difficult of exact limitation except by very expert persons. Moreover, as there is little vibration, the sound elicited is feeble, and can often only be rendered sufficiently intense by strong percussion, which proves painful, and may in some cases be impracticable. The object is, then, to reduce the surface of percussion, and M. Peter's instrument does this as far as possible, limiting the vibration to little more than a point of the organ, and enabling this to be distinguished from adjoining organs with a precision hitherto almost unattainable. To increase the sound elicited from so limited a surface, the disk has been replaced by a hollow vibratory stalk. The extremity to be applied terminates with a small spherical coif slightly flattened at its summit, while the other end, on which percussion is made, is broader and flat. The slightest touch suffices to elicit a loud sound. Within the hollow stalk of the instrument is placed a moveable crayon charged with Chinese ink. When the operator has discovered a spot at which change of sound is observed, he puts the crayon into operation, which marks a black point, and a series of such points furnishes a very exact representation of the configuration of the organ. It is therefore termed a *plessigraphe;* and it seems to well realise the desire of its inventor of reducing the surface to be percussed to a minimum, while obtaining a maximum of vibration.

During the discussion which took place at the recent Congress held at Lyon, upon the transmission of syphilitic disease by vaccination, M. Palasciano described the establishment which was founded by Galbiati, at Naples, half a century since, for the purpose of propagating cow-pock by means of heifers. The cow is brought to the patient's door, and the conductor having removed the pustule by means of scissors, the Physician proceeds to the inoculation. Vacciniferous heifers are met going round the streets just as are milch cows; and it is only the poor who resort to the vaccine institution, at which vaccination takes place from arm to arm. All those, however, who can afford the five francs charged have their children vaccinated from the heifer. Since the foundation of the Kingdom of Italy the practice has spread, and cow-pock is generally used for re-vaccination in the army and colleges. In M. Galbiati's hands it turned out a very good speculation, for a single heifer furnishes sometimes a hundred pustules without any damage to its health, and after having thus produced 400 or 500 francs by inoculations it is readily sold without depreciation of value. Even prior to this communication of the Neapolitan Surgeon, when small-pox was raging in almost every part of the Department of the *Seine Inférieuse*, attacking adults and a great number of vaccinated subjects, the Central Vaccination Commission addressed a circular to the Physician-Vaccinators, containing this passage:—

"The proposition of introducing the use of virus derived from a heifer has again been brought under the notice of the Commission, and experiments well worthy of attention having rendered it very valid, you are requested to immediately repeat these experiments, and acquaint the Commission with your opinion concerning them. The heifer is to be vaccinated in twelve or fifteen places around the circumference of the vulva, a part destitute of hairs and not accessible to the animal. The pustules are developed slowly from the eighth to the twelfth day, attaining different sizes. The virus collected from them is too thick to be introduced into tubes, and it is better to take it on two plates of glass wrapped up in tinfoil. When using it, the glass must be exposed to the vapour of warm water, or mixed with a drop of tepid water."

According to M. Soubie, of Libourne, if milch cows are so inoculated, it suffices to drink their milk during the maturation of the pustules, to obtain the benefits derived from vaccination. He mentions two cases, in one of which a child drank 600 grammes of milk on the fifth and sixth days after the vaccination, and in the other, half that quantity on the eighth day. Vaccination performed a month afterwards from arm to arm took no effect.

REPORT ON CHEAP WINE.—NO. VI.

(By our Special Empirical Commissioner.)

(Continued from page 598.)

Cheap Bordeaux Wine.

I WILL now detail my experience as to the quality and price of such samples of red Bordeaux wine as I have met with, merely reminding your readers that our definition of cheapness is, not more than 2s. 6d. per bottle, and that each wine has been fairly drunk at table (if drinkable), and not merely tasted in a warehouse.

But what are the qualities we look for in wine? I will endeavour to point shortly out such as deserve the attention of the Physician and consumer. We are not wine merchants, and cannot pretend to the refinement of professional connisseurs. We need only now look for certain practical tests of the humble kind of wines before us.

In the first place, in drinking a good large sip of the wine, does it *prima facie* strike us as being *one* liquid, or a compound of many? Wine should have an absolute *unity;* it should taste as one whole. True, we may distinguish various properties on reflection, but they should be as parts of a whole, and not as independent units mixed together. But bad wine resembles a black draught: here a something sweet meets one part of our gustatory organs, there something sour, there something fruity, or bitter, or hot, or harsh, just as if half a dozen ill-blended liquids came out of one bottle.

2. Wine should have a certain generosity of taste; unless spirit could be extracted by distillation it would not be wine; but there should be no smell nor taste of added and ill-combined spirits, nor that heat about the throat which they cause.

3. Wine, like all drinks used by healthy-grown men, is slightly sour—not even excepting water, if it contain a palatable quantity of carbonic acid and dissolved chalk. All soft, neutral, or alkaline drinks are, like milk, adapted for infants; or, like Vichy water and seltzer water, for invalids, or people past their grand climacteric, or for the gouty. But all the drinks of grown healthy men and women are sour—such as tea, coffee, ale, beer, cider, mum, mead, perry, every kind of fermented drink known to the law, including wine of course, and all the fruits which bountiful Nature gives us. So, too, are meat and vegetables in a lesser degree; flesh, fish (less so), bread, the horse-radish, the potato, the carrot, and the like. *Nature abhors alkalinity.* A certain amount of sourness belongs to all wines, and we have it *naked* in the well-fermented wines of France and Germany (claret, Burgundy, hock, etc.), and disguised in the imperfectly-fermented and sweetened and brandied wines of Spain, Portugal, the Cape, etc. There are other legitimate, unbrandied, *sweet wines*, as Constantia, Cyprus, and Visanto, which, though they contain an exuberance of sugar, are well fermented and not brandied. The degree in which the natural sourness of wine affects us depends much on the state of the palate. Divine instinct teaches most men (who have not coddled themselves after the teaching of dyspeptic Physicians and writers on diet) that something sour is good with fish and other gelatinous things,

and with what is fat and high flavoured—not good with sweets or fruit. But an excessive sourness, depending on acetous degeneration or *prick*, is bad, especially if combined, as it is in some of the worst clarets I have tasted, with great alcoholic strength and taste of added spirits. Practice soon detects this.

4. Sweetness is a characteristic of many good wines, as I have just said; but the Bordeaux and Rhine wines are as nearly as possible *dry*—*i.e.*, not sweet. Genuine sweet wines have their place and uses, of which more hereafter.

5. Whether sweet, or dry, or acidulous, we look in wines for a certain *stability*—a clean, round, perfect taste—and for the absence of what indicates change or fermentescibility. There is a certain mawkish, sickly sweetness (it is most like that of the sugar which is apt to *candy*—*i.e.*, to crystallise out of over-kept preserves, such as currant jelly) which, once tasted, can never be forgotten, and which indicates want of firmness.

6. Roughness or astringency is a most important property and belongs to most red wines. In moderate degree it is relished, as sourness is, by a healthy manly palate, just as the cold souse is welcome to the skin. In excess it leaves a permanent harshness on the tongue. The *genus* dandy always hates anything rough, but I believe a fair amount of it is anything but unpalatable to the tongue of a hard-worked man. The careful old man in Terence's "Heauton-timorūmenos" complains of a luxurious young lady visitor in his house:—

> "Pytissando modo mihi
> Quid vini absumsit! sic: '*hoc*,' dicens, '*asperum*,'
> '*Pater, est; aliud lenius, sodes, vide!*'
> Relevi dolia omnia, omnes serias."

"What a lot of wine she wasted in tasting it; saying, 'This, papa, is rough; see if you can't find some softer,' so I had to ransack and tap every bin in my cellar." Just so the young men at the clubs now ask for *some that is softer*. Civilised man is the same in essentials at all times and places.

7. In the next place we look for *body*. This is not strength, though the fullest bodied wines, as a rule, are the strongest. Spirit and water has no body. It is the total impression produced by the totality of the soluble constituents of wine—the extractive, that which gives *taste* to the tongue, and which, as wine grows older, is deposited along with the cream of tartar, forming the *crust*.

8. Next come the odoriferous principles which give *flavour*, *odour*, or *bouquet*, and which constitute the glory of wine, and its distinction from other liquors. Some flavours are derived direct from the grape; a pleasant reminiscence of the fresh fruit, of which I noted an agreeable example in the white Hungarian *Dioszeger Bakator Auslese*. But what is usually understood is that which is developed when the wine grows old in bottle. Such things are *sui generis*, although attempts are made by students of "applied chemistry" to imitate them. I need scarcely say that they are not to be looked for in young wine; in which fulness and colour, if combined with purity and firmness, are to be chiefly looked for, and which, if kept a year or two, will improve vastly and get flavour. I am speaking throughout of moderate-priced wines fit for families.

9. The wine must *satisfy*. A man must feel that he has taken something which consoles and sustains. Some liquids, as cider and some thin wines, leave rather a craving, hungry, feeling after them.

One more word let me say of the uses of these and other pure wines. They increase the appetite; they exhilarate the spirits; they tend to fill the veins with pure, healthy blood, and at the same time favour the action of the excretory organs; they are good in anæmia and chlorosis. How often I have wished that the patients coming from a Dispensary or out-patients' Hospital room could have had a bottle of pure wine, instead of the "mixtures" that they carry away in their dirty bottles! Mixtures, too, contaminated with methylated spirit! which the infernal ingenuity of wholesale chemists supplies at low rates to parsimonious Dispensary committees! Charity, what crimes are committed in thy name!

In persons of the gouty and rheumatic temperament—maladies which they vainly attempt to keep at bay by the driest of diets, such as meat, bread, and brandy-and-water—Bordeaux wines are of special service; they neither turn sour themselves nor are they the cause of sourness in other articles of food. But be it observed, they are *beverages* and not *drams*.

Then what a boon it would be to the very flower of our female population if the Medical Profession were courageous enough to set at defiance all the army of Mrs. Gamps, who infest the lying-in chamber, and who insist on cramming young mothers with the heaviest beer or porter, brandied wine, and ardent spirits on the pretence of keeping up their strength and assisting them to nurse. If ever there were a fit machinery for making women drunkards, it was the whole organisation of the lying-in chamber, as it was when I first knew practice, and even that was an improvement on times gone by. A poor woman, after the pains of childbirth, was loaded with bedclothes, and carefully shut out from fresh air and denied wholesome ablutions, in order, as it was said, to keep out the demon Cold. She was starved, denied a slice of roast mutton or any solid food, and saturated with gruel and other fearful slops in order to propitiate the demon Inflammation. Fruit and vegetables were denied, because of the belching demons Acidity and Wind! Then, when duly softened, sweated, blanched, puffy, nerveless, and breathless, she was exhorted to take stout or ale, and port wine to keep up her strength and make milk for the little one. How soon young women get a bloated look and lose their youthfulness under this *régime*, every man of observation knows too well. But it is not so well known that in humbler circles, where no port wine is to be had, the gin bottle was and is the substitute. Talk of Mission Women! Low monthly nurses are the very missionaries of ardent spirits.

But I affirm that, whilst the labouring man's wife, with her active muscular system, can nurse very well on table beer, and wants not a drop of gin, so the lady, with her more active nervous system and delicate organisation, can nurse very well on pure clean claret. She may drink abundantly of it, and be fresh, young, rosy, and fit for another innings when her duties are over,—with none of the dusky, venous tint of nose and cheeks, none of the misshapen "figure," for which abdominal belts are prescribed in vain.

But can cheap claret be had good? The following list will show. It is my purpose to encourage the use of pure wine. I therefore take the liberty of mentioning the places whence I have drank it good, with the prices, and notes of the quality. These are but samples of hundreds of dealers ready and willing to supply the demand, and when the public are knowing enough to ask for it, they will be ready enough to sell it.

List of Samples.—Those marked with the date 1863 *were purchased last year; all others this year.*

At Twelve Shillings per Dozen.—1. "Claret," from Messrs. ——. Not a good specimen; thin and sour.

Fourteen Shillings.—2. "Vin Ordinaire." Denman, City. (Purchased 1863.) Not too rough nor sour; strong; not bad for the money.

3. "Vin Ordinaire." Do., 20, Piccadilly. (1864.) Very clean, drinkable wine; not too sour. Alcoholic strength = 17·6 per cent. of proof spirit.

4. "Vin Ordinaire." Messrs. ——. (1863.) Thinnish; hardly worth the money.

Fifteen Shillings.—5. "Claret." Blaxall and Co., 33, Lamb's Conduit-street. Very good, ordinary, clean wine.

Sixteen Shillings.—6. "Good ordinary Bordeaux." Sautet and Robinet, 63, Dean-street, Soho. (1863.) Thinnish, but neither too rough nor too sour; seems to have been a fair time in bottle.

7. "Fronsac." E. Brun, 63, Dean-street, Soho. Not unpalatable.

8. "Claret." Messrs. ——. Not agreeable; strong and sour. Alcoholic strength, 24·3.

9. "Pondesac." Messrs. Trapp, 5, Crescent, Minories. Alcoholic strength, 19·5. Wants rest; tastes as if it had been disturbed.

Eighteen Shillings.—10. "St. Estephe." W. and A. Gilbey. (1863.) Fair body and flavour; roughish; worth 6d. per bottle more than No. 4.

11. "Bordeaux." Fearon and Co., Holborn. (1863.) Very nice, clean, palatable wine; not too acid; satisfactory.

12. "Claret." Barlow, 5, Curzon-street, May-fair. (1863.) Excellent ordinary Bordeaux; Not too acid.

13. "Vin Ordinaire." Cadiz Wine Co., St. James's-street. A really very nice wine; clean and refreshing; good body; alc. str. = 16.

14. "Claret, P. B. M." Trapp and Co. Rather lighter than last, possibly a little older; a very satisfactory wine; alc. str. = 13·8.

15. "St. Julien." Dubois and Co., Royal Albion Wine Office, Brighton. A light, very clean, well tasting wine; seems to have age; alc. str., 14. £16 10s. per hogshead.

Twenty Shillings.—16. "Bordeaux Wine." Denman, 20, Piccadilly. Capital wine; good clean taste; not too sour; some flavour; satisfactory. Alc. str. 16·7.

Twenty-one Shillings.—17. "Paysan's Bordeaux." Hall, 63, South Audley-street. Clean; *very* light; pure; satisfactory. Alc. str. 18·6.

Twenty-two Shillings.—18. "St. Emilion." (1863.) Brun, 63, Dean-street. Sound, smooth, pleasant wine; thinnish; agreeable flavour.

19. "Bordeaux." R. Wood, 132, New Bond-street. (1863.) Nice, clean, soft wine, with something of the smack of "after-dinner claret."

20. "Claret L." Trapp and Sons, 5, Crescent, Minories. Very nice wine; not rough nor acid; good colour; satisfactory. Alc. str. 13·8.

Twenty-four Shillings.—21. "St. Julien, 1857." Hassam, 9, Greek-street, Soho. (1863.) Full-bodied; deep colour; age in bottle; crust; not sour, *but decidedly rough;* suits myself to a nicety; so finding the proprietor was going out of business, I bought all he had at 21s. per doz. Alc. str. 19·5.

22. "St. Estephe." Denman. (1863.) Pure, clean wine; not rough nor sour; satisfactory.

23. "St. Emilion." Gilbey. (1863.) Fair body; would have tasted well had I kept it long enough.

24. "St. Emilion, good quality." Brun and Co. (1863.) Very good, smooth, pleasant wine; body enough; some flavour.

25. "Claret." Barlow, Curzon-street. (1863.) Capital clean wine; some flavour.

26. "Claret." Nunn, Lamb's Conduit-street. Very clean, well-flavoured wine; body enough; not too acid.

27. "Claret." Denman. Very excellent; fair body and flavour. Alc. str. 16·7.

28. "Claret." Hall, South Audley-street. Alc. str. 17.6. Very clean, pure, soft; a little more body than No. 17.

29. "Claret B." Trapp and Sons, 5, Crescent, Minories. Alc. str. 15·8. Good wine in colour, body, and flavour.

30. "Château Leoville." Dubois, Brighton. Alc. str. 15. More colour and body than No. 15; very sound, fine, good wine, with flavour; £20 10s. per hogshead.

Twenty-six Shillings.—31. "St. Julien." Messrs. ———. (1863.) Thin, poor, and watery; nothing unpleasant, but no flavour to counterbalance want of body.

Twenty-eight Shillings.—31. "Claret." Messrs. Trapp and Co., 5, Crescent, Minories. Alc. str. = 15·8. Very good.

33. "Claret." Messrs. Nunn, Lamb's Conduit-street. Good body; some flavour; perfectly satisfactory.

Thirty Shillings.—34. "St. Julien." E. Brun. (1863.) Roughish, full-bodied, well-flavoured, sound wine.

35. "Claret." Germain, Frith-street, Soho. (1863.) Very good, smooth, light wine.

36. "Claret." Messrs. Drake, 37, Bedford-street, Strand. Very clean, pure wine; good flavour; quite satisfactory.

37. "Claret." Denman, 20, Piccadilly. Alc. str. = 17·6. May be described in the same terms as the last.

I will now shortly ask your readers to allow me to present the following solemn conclusions from the foregoing details:—

At and above eighteenpence a bottle Bordeaux wine can be had, retail, with no trouble to the consumer, at any number of respectable shops, fit for the table of any gentleman who desires to drink it with his dinner.

Below eighteenpence good Bordeaux wine may be got retail if the consumer take some little pains to choose it and keep it a little. The cheapest wines are put to the severest test.

In buying cheap wine by retail the consumer should decide whether he prefer a goodish wine new, like No. 20, that will improve by keeping, or one which may have some age, as No. 21, and is as good now as it ever will be.

By far the best plan is to buy *wholesale*. Any one who takes wine in quantity and pays cash can get a discount, which will reduce the price two to four shillings per dozen.

Cheaper still is it to buy by the hogshead; let the wine merchant bottle it for you, or do it yourself, and so save the retail profit of the wine merchant.

The price of wine comprises that of the *wine;* the *duty* at one shilling per gallon on a hogshead of 46 gallons (or 22 dozen) charges, etc., say £3, or about 2s. 6d. per dozen; bottling, laying up, fining, drawing off, including bottles and corks, which are charged by Messrs. Trapp 3s. 6d. per dozen on their own premises, and 3s. 3d. on the consumer's. Now, suppose the wine cost 12s. per dozen; duty, etc., 2s. 6d.; bottling 3s. 6d. = 18s. per dozen: this wine bought retail would cost 24s. A practical man who has bottles, and who can have the job done at home, under instructions from the wine merchant, can save at least 2s. 6d. per dozen in the bottling, besides the 20 to 25 per cent. retail profit.

My practice leads me often into lodging-houses at the West-end, kept by French or Italian couriers, and clever fellows they are; and one of them once gave me some capital Macon, which he assured me only stood him in 10½d. per bottle.

Let me say that *cold* in any shape does not agree with these wines. They taste best at 58°—60° Fahrenheit.

It is curious to notice the small alcoholic strength of these wines. The most alcoholic samples were decidedly not the best, but the body bears no proportion to the alcohol—*i.e.*, weak wines may taste *full* and *round*, and give a satisfactory *post-prandial* sensation.

I must next relate my experience with cheap Burgundy, Italian, Hungarian, and Greek wine, some of which certainly excel the Bordeaux in stoutness. Meanwhile, I again urge my Protessional brethren, in the interest of health and morality, to order their patients *pure wine;* and to discourage the highly brandied ports and sherries so abominably dear at present. People may as well buy and drink wines *pure*, as let them be fortified and doctored into public-house port and sherry, which is their fate if they fail of sale under their genuine titles.

P.S.—I acknowledge your kindness in sending me Mr. Chaplin's letter, which I pray you to publish. It is very fortunate for my line of argument.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF CAMBRIDGE.

(Continued from page 601.)

The third collegiate establishment was founded in Cambridge in the year 1343. Mary de St. Paul, third wife of Aymer de Valencia, Earl of Pembroke, was the foundress. The story runs that Mary "was maid, wife, and widow" in one day, her husband having been killed at a tilting match on the day of their nuptials. In despair, she renounced the world, and disposed of her wealth in benevolent and pious intents. The foundation of the hall for students was one of these intents, and the building, incorporated by royal charter from Edward the Third, was endowed for a master and six fellows, with two scholarships. At first the hall was called the Hall of Maria de Valencia, but in time the titular name of the Earl, Pembroke, was attached to it, and it was known as Pembroke Hall. In our day it is called Pembroke College. Henry the Sixth added largely to the endowments of this College, and gave it a new charter, in which it is described as the "most noble, renowned, and precious College which, among all others in the University, was ever wonderfully resplendent." Spenser, the poet author of the "Faerie Queen," Mason, the poet, Wharton, the discoverer of Wharton's duct, and William Pitt, were students of Pembroke. The College has now fourteen fellowships and twenty scholarships. Of the latter, eight are worth £60, six £40, and six £20 annually.

The fourth College, founded in 1348, and known as Gonville and Caius College, or more commonly as Caius or Key's College, is of most interest to the Medical Profession. Edmund Gonville, Rector of Terrington and Rushworth, in Norfolk, was the originator of the College. He died before the work was finished, but left sufficient money for its completion in the hands of William Bateman, Bishop of Norwich, who removed the site and endowed the College with many benefactions. Many years afterwards, William Ffyshwyke added to the College an hostel, which was called after him. In 1557 the fifth of Mary, Dr. Caius, Physician to the Queen, obtained for the College a charter of incorporation, on which the College took its name as we now retain it. Caius largely increased the endowments of the College, and built in connexion with it three gates. The first of these gates, through which the student enters the College, is of the simplest construction, and bears the inscription "*Humilitatis*," the gate of Humility. The second gate is in the centre of the College, communicating with the two courts; it bears the inscription on the entrance side of "*Virtutis*," the gate of Virtue, while on the opposite side is another inscription, viz., *Jo Caius posuit sapientiæ*. The second gate is a much more elaborate and commanding structure than the first. The third gate leads to the public schools, and is of rich ornamental construction, the architectural classical types being all introduced. It is

inscribed "*Honoris*," the gate of Honour. The symbols conveyed in these gates are very beautiful and encouraging to the student. They tell him that, as he enters ignorant and helpless, so must he enter humble, or through the gate of Humility. As he makes his way he is raised to Virtue, which rather means, in this sense, knowledge or excellence than chastity; and when he has passed through all the gradations and the discipline of the College, he is exalted to honour, and leaves the place under that exaltation by the gate of Honour.

I shall not here stay to comment on the life and works of the very remarkable man who refounded the College that bears his name. He will come before us in his proper person in due time and place. His College remains as his best and noblest monument. The College has been adorned by students of the noblest type. In those walls William Harvey first imbibed his love for learning, and Francis Glisson, and Prujean, and Wollaston carried on their early work. Jeremy Taylor also "robed" here. Regarding the fellowships and scholarships. Dr. Humphry states—"There are thirty fellowships, and thirty-six scholaships, ranging in value from £20 to £60. One of the latter is given annually for anatomy and physiology, and one for chemistry. Besides these, there are four Tancred Studentships for Medical students of the annual value of £100 each. Two of the scholarships (£60 each), one for classics and one for mathematics, are generally given at Easter, after open competition, to students who have not entered."

As we have already seen, Bateman, Bishop of Norwich, who completed Gonville Hall, was engaged also in building a hall of his own, which was named (and is still named) "Trinity Hall." This hall has from its first been sought out by the legal craft, and it might be termed "Lawyers' Hall" with due propriety. The foundation is ancient, for it was a hostel before it was incorporated. In the reign of Edward the Third, the Prior of Ely, Richard Crawdent, bought the hostel and turned it into a residence for the members of his monastery when they left Ely to study at Cambridge. After a time, Crawdent sold the hostel to Bateman, who proceeded to do with it as we have already told. There are eight livings in the gift of the College, thirteen fellowships, and sixteen scholarships.

In 1851 the College called Collegium Corpus Christi et Beatæ Mariæ Virginis was founded. This College was sometime known also as Bene't College, because it is near the Church of St. Benedict, in which church its religious services were first administered. The College was not built, as were its predecessors, by the benevolence of individuals, but by the amalgamation of two guilds of the town of Cambridge, known as the Corpus Christi and the guild of the Blessed Virgin. The aldermen of these guilds, by the aid of Torto Collo—Henry, Duke of Lancaster—were enabled to obtain permission from Edward the Third to transform the two guild halls into one College. Soon afterwards the College became richly endowed. The library of this College is of great value. There is in it a book, the "Rhetorica Nova," which was printed at Cambridge in the year 1478; also the original manuscript of the Thirty-nine Articles. A large portion of the library was collected by Matthew Parker, Archbishop of Canterbury in the time of Elizabeth, a man remarkable for his varied learning not less than for his virtues and for the (I had almost said) romance of his life. Parker's first step in preferment was unhappy; it was that of chaplain to poor Anne Boleyn, in the time of fat Harry. On the accession of Edward he was made Dean of Lincoln, but when Mary rose down went Parker, as might be expected. How he escaped Bonner and the whole crew of fire-eaters is marvellous, but he did it; and not that only, but during his downfall he wrote a book to show that it was right for priests to marry. After the death of Mary, Elizabeth naturally looked after Parker, and made him Primate as soon as she could. He was a good Primate, and has left a name of sweet savour. He looked up much that had been lost in the course of the destruction of the monasteries. He was the framer of that edition of the English Bible known as the "Bishops' Bible," and he wrote music with the hand almost of a master. Above all, he enriched Corpus Christi College most preciously, and preserved to the world in it many treasures that would otherwise have been lost.

In the year 1823 a new court was built to this College, and not before it was called for. The College ranks amongst the best, and as it is not *specially* professional it has sent out good men into all departments of life. To Physic it gave Pitcairn, an odd and erudite, rather than an able, man; and it also gave Dr. Stukeley, a philosopher, who is now not so well remembered as he should be, but who in his own time was a first man in physical science. A collection of the works of Stukeley, with a memoir of his life, is a book wanted. In Corpus Christi there are now twenty-five scholarships, each tenable for three years, and varying in value from £25 to £60, and also six sizarships of £30 a-year. The Fellowships are twelve in number.

The next College that rose in Cambridge to eclipse all the rest, in so far as architectural display is concerned, was founded by Henry the Sixth, and bears the name of King's College. On his birthday, on November 6, 1441, he, being then twenty years of age, Henry founded a small school dedicated to the Virgin Mary and to St. Nicholas. The act was in accordance with the tastes and hopes of the young and unhappy King, who had long felt the toils of government, and knew that his was not the heart to bear them. Amongst all our roll of monarchs there is not one for whom the thoughtful man feels more than for poor Henry the Sixth. He had greatness so rudely thrust on him; he was so gentle, so confiding; his tastes, his judgments ran so cordially with the useful and the beautiful, that we must love him now in proportion as we know him. No true character has been written as yet of Henry the Sixth—we know his wife Margaret better than we know him, and this because he has never been understood, and because the soul of his greatness has not been of the recognised standard. Anyway, he has left one monument at Cambridge, and he laid it, as I have said, on his birthday in 1441. It was a small beginning, but in a short time it grew. In two years he had enlarged the school, and he had endowed it well. He had also drawn out designs for its completion, which embraced all the magnificent structure which we have in this day. The chapel, the most perfect building of its kind in the kingdom, though Henry never lived to see it finished, was not the less his thought, and whoever enters it, whatever his persuasion, he may be grateful that the so-called weakest of English kings lived to originate one of the noblest of the learned and ecclesiastical works of the English school. The finishing of the chapel extended through several reigns, and it is to the credit of another English king, whose fame is ordinarily not of the best—viz., Richard the Third—that he lent a hand in it. On his death all works were suspended until the last year of Henry the Seventh, and were continued from that time until 1515-20, when the whole was completed. An architect named Cloos is reported to be the designer, and one John Wulrich was the "Master Mason." In 1724 the College was enlarged by the erection of what is called the Fellows' building, and a further addition was made in 1824. All the Fellows and scholars are elected from Eton, and there are forty-eight scholarships, each of which are worth £80 a-year. The Fellows number forty-six.

Queen's College followed soon after the foundation of King's College. The foundress was Margaret, the bold and for a time successful wife of Henry the Sixth, she who in our child readings we admire so much for having met the robber in the forest and trusted the Crown Prince to his protection. The first stone of the chapel was laid for Margaret in 1448 by Sir John Wenlock. The building, long in progress, was at last finished by the enemy of Margaret—Elizabeth Woodville, queen of Edward the Fourth, she who is reported to have told her royal suitor that the only way to her bed-chamber was "through the Church." The students of Queen's pride themselves on the fact that when Erasmus of Rotterdam, at the invitation of the Chancellor of the University, Bishop Fisher, came to England, he chose this College as his resting-place, having his study at the south-west tower of the old court. There are now, according to Dr. Humphry, fourteen Fellowships in this College, and seventeen scholarships, varying from £30 to £50 per annum. Two scholarships of £40 each are open to competition before entrance. Prizes and exhibitions amounting to the value of £250 a-year are also given. Ten livings are in the gift of the College.

A hall, called St. Catherine's Hall, and now known as St. Catherine's College, was founded in 1475 by Robert Woodlark, Chancellor of the University. The licence of incorporation was obtained in the year 1475. The College has since been enriched by various benefactions, one of which was from Dr. Addenbrooke, the founder of the Hospital that bears his name, and who was a student here. At one time there were fourteen fellowships and twenty-six scholarships in this College, with a librarian, a "master's sizar," and a chapel clerk. Now the fellowships are twenty-nine and the scholar-

ships twenty-one, the latter varying in value from £25 to £50 a-year each. Annual book prizes are also bestowed for classics.

A College opened as such in the year 1496 by John Alcock, Bishop of Ely, and known from then until now as JESUS COLLEGE, has a curious history attached to it. It was originally a nunnery, and was known as the Nunnery of Cambridge. As a nunnery, it was endowed with lands by Malcolm the Fourth of Scotland and Earl of Huntingdon and Cambridge, about the year 1160; and so it remained for centuries. But at last it got into bad repute: as the young gentlemen scholars began to flock into the University town the strictness of the sisterhood sensibly declined. To use an expression from Gibbon, "insulted Nature sometimes vindicated her rights;" and in plain terms the fair inmates became at last so notorious that King and Pope together combined to break up their establishment. The result was, that Bishop Alcock gained possession and founded the College in the twelfth year of Henry the Sixth. David Hartley, Dr. Richard Waren, and "Tristram Shandy" Sterne were students of this College. Cranmer, who may or may not be an ornament according to taste rather than jndgment, studied also here. The fellowships number sixteen, the scholarships thirty.

An hostel called "God House," near to Clare Hall, and endowed by one William Bingham in 1442, was for some time a school for twenty-four scholars who were to learn grammar. The school was removed to its present site by Henry the Sixth, who intended to raise it to importance, but left his work to be finished in the fourth following reign (Henry the Seventh's) by his half sister Margaret, Countess of Richmond. The countess obtained the license of incorporation from the king in 1505, and changed the name of the house to "CHRIST'S COLLEGE," the name it still maintains. She endowed it for a master and twelve fellows, but other fellowships have since been added, and now number fifteen. John Milton was a student of this College, and a mulberry tree, said to have been planted by him, is one of the curiosities of the College garden. Here Bishop Porteus learnt, and Pigeon Paley, as George the Third called the eminent natural theologian, followed the humanities. In addition to the fellowships there are, I find from Dr. Humphry's history, thirty scholarships worth from £30 to £70 a-year; four sizarships worth £50 a-year; and four Tancred studentships in Divinity each worth £100 a-year. Five of the scholarships are open every year for competition previous to residence.

Margaret, Countess of Richmond, not content to found and endow Christ's College, founded also and endowed another college under the name of St. John's in the year 1509. She died before this college was opened, and the charter, bearing date April 9, 1511, was made out to the executors of the countess. The College was formally opened in 1516 by the Chancellor of the University, Bishop Fisher. The name is taken from a priory of St. John, on the site of which after its dissolution the College was erected. The monks who had lived in the priory, and who were of the Augustine order, seem like their sisters of the nunnery to have been inclined to sow wild oats, for they, too, were dissolved, holy men as they were, for loose life and prodigality, the Pope (Julius II.) confirming the deed. At first the College was endowed for thirty-one fellowships, but now there are fifty-six, and sixty foundation scholarships, each worth £50 a-year, as well as nine sizarships of a value of £35 each per annum. Matthew Prior and Thomas Otway were students of St. John, and amongst Medical celebrities Dr. Wm. Heberden.

In the reign of Henry the Eighth, and soon after the general suppression of the monasteries, there was founded in Cambridge another College, under the name of Magdalen College. It was raised on the site of St. Giles's Priory, the monks having sold their estate to Edward Stafford, Duke of Buckingham. The duke erected a part of the College in 1519, but his unhappy death on the scaffold prevented his intention of endowing it from being carried out. Twenty-three years afterwards, the property having meantime been in the possession of the Crown, the Lord Chancellor Audley gained it from the king, obtained for it a charter, and named it the College of St. Mary Magdalen, MAGDALEN COLLEGE, as now known. Audley End, the seat of Lord Braybrooke, a lovely house and park, at a short distance from Saffron Walden, takes its name from Lord Chancellor Audley. Magdalen was from the first a small foundation in comparison with some of the other Colleges. It was endowed for a master and four fellows, and even now there are only eight fellowships and twenty-five scholarships. The library is very rich, containing the manuscripts of that strange old courtier of Second Charles' time, Mr. Samuel Pepys, whose diary, published some years ago by the late Lord Braybrooke, of Audley End, created so much interest.

The combination of three establishments in Cambridge—viz., St. Michael's Hall, King's Hall, and Physic's Hostel—into one foundation led, in the reign of Henry the Eighth, year 1546, to the origin of the far-famed TRINITY COLLEGE. The foundation is attributed to this king, but Mary, his daughter, little understood yet in English history and much belied, added not a little to this great school. The whole of Trinity is magnificent, and must be visited to be appreciated. The great court, or quadrangle, the hall, the library, the king's court, the many special objects of interest, such as Roubillac's statue of Newton, ask for the attention of two days at least from every stranger.

Trinity claims to have reared the first men of the Cambridge school. Lord Bacon, Isaac Barrow, Sir Edward Coke, John Ray, Roger Cotes, Abraham Cowley, and John Dryden were students here. But the glory of the College, and, indeed, of the University, was Sir Isaac Newton. Here, on the tower gate, the greatest philosopher had his observatory and worked for the world. Well may Trinity be proud of her son and sons. Trinity is richly endowed; Dr. Humphry reports of it:—

"There are sixty fellowships; seventy-two scholarships, £80 a year in value; six minor scholarships, £50, open every year to all persons, under twenty, who have not yet commenced residence, or are in their first term; sixteen sizarships, £60 a year at least. A prize of £25 is given to each sizar in the first class in the general examination; £15 to each in the second class; and £10 to each in the third class. Thus a sizar, who also obtains a minor scholarship, may receive £130 a year, at least, from the College. There are also several other exhibitions and prizes."

Sir Walter Mildmay, Chancellor of the Exchequer to Queen Elizabeth in the year 1584, built a College, still known by its first name, EMANUEL COLLEGE. The convent of the Dominican, or preaching friars, formed the site of the College, which was incorporated by Elizabeth. At first provision only extended to a master, three fellows, and four scholars, but now there are twelve fellowships and twenty-two scholarships. The library is enriched with a book—"Tully's Offices"—assumed to be the second book printed after the discovery of the art in Europe, the printer being none other than Faust himself; the book bears date 1465. The famous Dr. Dee, alchemist and astrologer, who lived in Mortlake, is buried there, and whom the virgin Queen was wont to consult, was a student of Emanuel College. A man of some genius Dr. Dee, but scored by his biographers with many mysteries that it were hard to rub out and not worth the pains to accomplish.

SIDNEY SUSSEX COLLEGE was the last of the first series of Colleges erected in Cambridge. It had its origin from a Franciscan monastery, confiscated by Henry the Eighth. The king gave the convent to Trinity College, and Trinity not wanting it sold it to the executors of Lady Frances Sidney, widow of Thomas Radcliffe, the third Earl of Sussex. The countess had by will left £5000 to found the College, and her executors erected it, making it bear the name of herself and her husband—SIDNEY SUSSEX COLLEGE. The College was opened in 1598. The will of the foundress provided for the support of a master, ten fellows—now reduced to nine,—and twenty scholars—now increased to twenty-seven. In addition, there are twelve junior scholarships open for students who have not entered. Sidney Sussex College, as I find from Dr. Humphry's narrative, is ambitious to cultivate the natural sciences. It possesses a scientific library and a chemical laboratory, and it examines on natural science for certain of the junior scholarships. This College is famous as having been the school of His Highness the Lord Protector, Oliver Cromwell. Noll entered as a student in his seventeenth year on April 22, 1616. His entry is thus rendered:—"Oliverus Cromwell Huntingdoniensis admissus ad commensum Sociorum Aprilis vicesimo tertio, 1616, Tutore Mr. Ricardo Howlet." Beneath this entry some unmitigated time-server, who knew nothing of Cromwell or his great mission, has chosen to concentrate the whole virulence of the Clarendon school on the head of the Protector. Fortunately for himself, the ignorant libeller does not dare to append his name. In the library of this College was deposited the fossil child's skull which was sent up to Harvey by Dr. Ward, in order that it might be laid before Charles the First. The

communications between Ward and Harvey on this subject are of much interest. The skull was found in the island of Crete, ten feet beneath the soil, in or about the year 1627. The skull when first brought to England was unbroken; the teeth were perfect, but the rest of the bony structure was petrified, resembling "hard sandstone." In these days, when so much is being said about the fossil remains of man, it is a wonder this memorable skull has not been worked into the controversy.

We pass over many generations, and find Cambridge with no new College, until at last we reach the first year of the present century. In that year the lords of the Privy Council recommended his Majesty George the Third to sign the charter of incorporation for a new College to be raised on the site of an old religious house called the Leas, and to be named Downing College. The College was the gift of Sir George Downing, of Gamlingay-park, in the county of Cambridge. Sir George died in 1749, and his property was so left to his cousins that in case of their deaths without issue it was to found a College in the University, bearing the founder's name. The foundation-stone of the building was laid on the 18th of May, 1807, and provision was made for a Master, a Professor of the Law, a Professor of Medicine, sixteen Fellows, six Scholars at £50 per annum for four years, two Chaplains, and a Librarian. The Professors were to read lectures to all the University on the usual terms for public lectures. The College was not formally opened until the year 1821. There are now eight fellowships and ten scholarships, with some minor scholarships open for competition before entrance. In the examination some portions of natural science are included. Dr. Fisher is the present Downing Professor of Medicine at Cambridge.

The Colleges named and briefly described above constitute the University of Cambridge. It will be gathered that as a great school Cambridge possesses latent resources that may almost be considered without parallel. If she had the same spiritual means—if the term is allowable—as she has material means, if she had life equal to her body, she would indeed be great. Dr. Humphry, in summing up the resources of the University, speaks as follows:—

"If the number of Fellowships in all the Colleges be added together it will be found that they amount to 353; the average value of each of which is, probably, about £250 per annum. It is computed that about £25,000, annually, are given in scholarships, exhibitions, and prizes in the Colleges, besides the University scholarships. There are, moreover, seventeen masterships of Colleges; and more than three hundred livings in the gift of the Colleges. These vary much in value. Many are very good; and, as each that becomes vacant is offered, according to seniority, to those Fellows of the respective Colleges who are in holy orders, they form, it need scarcely be said, a very important item in the attractions of Cambridge. To all these must be added the Professorships and other University offices; the emoluments of which are, in some instances, high, though, for the most part, that is not the case. Of the prodigious forcing power thus represented (and there is about an equal amount in Oxford), sufficient, surely, may be spared, without real detriment, from Arts, Theology, and Law to produce a decided and beneficial influence upon Natural and Medical Science."

THE MEDICAL SCHOOL OF CAMBRIDGE.

Medical Teaching Staff.

The Medical teaching staff at the University of Cambridge is divided into Professors and Lecturers. The Professors are—*Regius Physic.*—Dr. Bond. *Downing Medicine.*—Dr. Fisher. *Anatomy.*—Dr. Clark. *Chemistry.*—Professor Liveing, M.A. *Botany.*—Professor Babington, M.A., F.R.S. The Lecturers are—*Linacre Medicine.*—Dr. Paget. *Anatomy and Surgery.*—Dr. Humphry. *Demonstrator of Anatomy.*—C. F. Helm, Esq., F.R.C.S. *Chemistry and Practical Chemistry.*—Professor Liveing.

The Anatomical School and Museum.

The Anatomical School is at present not worthy of the place. The accommodation is limited, and there is a want of life in the look of it which does not appear elsewhere in similar institutions. At the same time there is a nucleus for a really great school. The museum is rich, much richer than it would at first seem to be, for the specimens are packed too closely. The physiological preparations of Schroeder van der Kolk have lately been added to the museum, and form a valuable and most useful series. In the school there are also laboratories, theatres for lectures, and dissecting-rooms.

Addenbrooke's Hospital.

The official account of the origin of the sick Hospital in Cambridge, known as Addenbrooke's, is thus rendered:—

"In the year 1719, John Addenbrooke, M.D., formerly of Catharine Hall, left about £4000 to erect and maintain a small Physical Hospital. Land was accordingly purchased in 1728, and the building erected in 1740; but the money being insufficient for the support of it, an Act of Parliament was obtained in the year 1766 for making it a general Hospital; and in October of the same year it was first opened for the reception of patients."

The Hospital was built at the south entrance of Cambridge from London.

Administration.

The Hospital is open for both in and out patients, and there is in the house an average of about 78 patients. The following return is for the past seven years:—

	In-patients admitted.	Out-patients admitted.	Patients cured.	Daily average in the house.
1857	638	1700	1115	81
1858	584	1608	983	83
1859	657	1599	1094	86
1860	602	1687	1205	74½
1861	618	1541	906	81¾
1862	691	1904	1004	78½
1863	655	1855	906	74⅞

Rules for Admissions of Patients.

The following are the more important rules in respect to patients:—

No person is admitted a patient but by recommendation of a subscriber or benefactor; the recommendation is to be signed in the handwriting of the contributor recommending, except in cases which admit of no delay, when the Apothecary or matron may receive patients, giving immediate notice to the Physician or Surgeon of the week.

No patients are admitted who are able to subsist themselves and pay for medicines.

All persons, when admitted into the Hospital, must come clean, bring with them clean apparel, a change of linen, and money to pay for washing it.

For every guinea subscribed, and every ten guineas given in benefaction, every subscriber or benefactor has a right of recommending one person as an in-patient during the year, and two persons as out-patients, with the liberty of substituting two out-patients for each in-patient.

Every person subscribing two guineas or upwards may recommend as many additional patients as he thinks proper, paying one guinea for every additional in-patient and half-a-guinea for every additional out-patient so recommended on admission.

No subscriber's recommendation is accepted whose subscription is in arrear more than three months.

Benefactors of less than ten guineas have the privilege, for the current year, of recommending one in-patient and two out-patients for every two guineas given.

The officers of a parish or Union have the power of recommending one in-patient and eight out-patients for every two guineas annually subscribed by them. Every officer of a parish or union must pay two guineas for every additional in-patient on admission, and no person is considered a private subscriber who is reimbursed by any parish or Union.

No recommendation is taken from any parish or Union which has not subscribed three months before the time of such recommendation, or of which the subscription is more than three months in arrear.

Every officer of a parish or Union recommending an in-patient to the Hospital is required to deposit two guineas with the matron for defraying the expenses of the patient's removal or funeral, in case such officer shall be guilty of neglect after receiving due notice of the discharge or death of the patient; the money is, however, repaid to the officer when he removes the patient.

No person is admitted to visit a patient in the fever ward but by the express permission of one of the Medical officers or the Apothecary.

Rules Respecting Pupils, Apprentices, and Clinical Instruction.

Pupils of the Medical officers are allowed to attend the practice of the Hospital, subject to the same regulations (as far as they may be applicable) as the house apprentice, and the pupils attending the clinical lectures.

The House Apothecary is allowed to have at any one time *one* apprentice residing in the Hospital.

The premium yearly payable to the house apothecary by such apprentice is forty pounds; he also must pay a further sum of forty pounds to the governors of the Hospital in consideration of board and lodging. The resident apprentice is subject to the following rules:—

He is not allowed to leave the Hospital without the consent of the house apothecary.

He is not allowed to have or use a key to any of the gates of the Hospital, or to bring into the Hospital cigars, tobacco, spirituous liquors, or wines.

If at any time his conduct be disorderly, he may be reported to the weekly Board or general Court, to be dealt with as such Board or Court may decide; and, if such conduct be persisted in, he is dismissed the Hospital.

He is not allowed to entertain or to invite any person to any meal in the Hospital without the consent of the house apothecary or matron, nor to be absent from the Hospital later than ten o'clock at night without the consent of the house apothecary.

Clinical Lectures are given to pupils under the following regulations:—

The lectures are delivered in the Board-room of the Hospital. The recommendation of one of the Physicians and one of the Surgeons is necessary for the admission of each pupil. The name of each pupil is registered in a book, and the entry is signed by the Physician and Surgeon recommending him, and submitted to the next weekly Board for confirmation. Pupils are allowed to visit the patients between the hours of nine in the morning and two in the afternoon daily (Sundays excepted), and at no other time, except by permission given in writing on each separate occasion by one of the Physicians or Surgeons; such permission has to be left with the apothecary, and, if required, produced to the weekly Board.

Samaritan Fund.

In the year 1806 a patient on recovery gave a benefaction of twenty guineas towards establishing a *Samaritan Fund* for the relief of those patients who are discharged from the Hospital, and who cannot through weakness or other causes immediately support themselves. This benefaction has served as a foundation for a plan which has been found advantageous in the London Hospitals. Some other benefactions have been received, and during the year 1817 a legacy of fifty pounds bequeathed by the Rev. Robt. Tyrwhitt, of Jesus College, was added to the balance in hand, and in the year 1832 another legacy of one hundred pounds, was bequeathed by Mrs. Hicks, of Wilbraham Temple.

The mode of distribution of the Samaritan Eund is as follows:—The matron, whose personal communication with the patients is presumed to enable her to become well acquainted with the circumstances of each, in cases of necessity which fall within the design of this fund, applies to the weekly Board when the patient leaves the Hospital. On the representation of the Matron, the Board makes distribution of the money according to the capability of the fund in hand.

Income of the Hospital.

The sources of income are from subscriptions, dividends on stock, rents of lands, legacies, donations and benefactions, collections after sermons, from extra patients, and casual gifts. The rent of lands yields £1364 yearly, while the annual subscriptions amount to nearly the same sum. In 1863 the whole income of the Hospital was £4465 2s. 2d. I have no means of determining accurately the cost of each patient to the Hospital.

Library.

There is a library of Medical and Surgical books in the Hospital, the nucleus of which was formed and bestowed by Frederic Thackeray, M.D. The funds of the Hospital are not applied to the purchase of books. The library is under the charge of the Medical staff, and the House-Surgeon acts as honorary librarian.

Medical Staff.

Physicians.—Henry J. H. Bond, M.D., George E. Paget, M.D., and Peter W. Latham, M.D. *Consulting Physician.*—William W. Fisher, M.D. *Consulting Surgeon.*—John Okes, Esq. *Surgeons.*—Charles Lestourgeon, Esq., Josiah Hammond, Esq., and George Murray Humphry, Esq., M.D. *House-Surgeon and Apothecary.*—George Wallis, Esq.

Sanitary Condition of the Hospital.

At the present time Addenbrooke's Hospital is being virtually rebuilt. At the time of my visit I found about thirty patients very comfortably placed in the fever wards, and the whole of the remaining part of the building in the hands of the builder. It is impossible, therefore, to say anything as to the condition of the wards or the other points to which I have been accustomed to direct attention—with one exception, the dietary system. The table of diet I herewith subjoin:—

Table of Diets for Addenbrooke's Hospital, subject to the occasional alterations of the Physicians or Surgeons.

Low Diet.

Monday—Breakfast, plain gruel,(a) one pint.
Dinner, arrowroot and milk, do.
Supper, plain gruel, do.
Tuesday—Breakfast, plain gruel, one pint.
Dinner, milk-pottage,(b) do.
Supper, plain gruel, do.
Wednesday—Breakfast, dinner, supper, the same as Monday.
Thursday—Breakfast, dinner, supper, the same as Tuesday.
Friday—Breakfast, dinner, supper, the same as Monday.
Saturday—Breakfast, dinner, supper, the same as Tuesday.
Sunday—Breakfast, dinner, supper, the same as Monday.
Eight ounces of bread daily; no beer.

Middle Diet.

Monday—Breakfast, milk gruel, one pint.
Dinner, rice pudding (three ounces of rice before it is cooked).
Supper, plain gruel, one pint, with an ounce of butter.
Tuesday—Breakfast, milk gruel, one pint.
Dinner, batter pudding, with an ounce of butter.
Supper, broth, one pint.
Wednesday—Breakfast, dinner, supper, the same as Monday.
Thursday—Breakfast, dinner, supper, the same as Tuesday.
Friday—Breakfast, dinner, supper, the same as Monday.
Saturday—Breakfast, dinner, supper, the same as Tuesday.
Sunday—Breakfast, dinner, supper, the same as Monday.
One pint of small beer, and twelve ounces of bread daily.

Full Diet.

Monday—Breakfast, milk gruel, one pint.
Dinner, rice pudding (three ounces of rice before it is cooked).
Supper, one ounce of butter.
Tuesday—Breakfast, milk gruel, one pint.
Dinner, half a pound of mutton or beef, with vegetables.
Supper, broth, one pint.
Wednesday—Breakfast, dinner, supper, the same as Tuesday.
Thursday—Breakfast, dinner, supper, the same as Tuesday.
Friday—Breakfast, dinner, supper, the same as Monday.
Saturday—Breakfast, dinner, supper, the same as Tuesday.
Sunday—Breakfast, dinner, supper, the same as Tuesday.
One pint of mixed beer, and fourteen ounces of bread daily.
Half diet for children under eight years of age.

GENERAL CORRESPONDENCE.

THE PRODUCTION OF AN INVERTED IMAGE BY A CONVEX LENS.

Letter from Mr. John Cresswell.

[To the Editor of the Medical Times and Gazette.]

Sir,—Of course when I ventured to controvert an established opinion I was prepared to expect contradiction, but I did not expect, after having flattered myself for more than a quarter of a century that I had some knowledge of optics, and having, during that period, devoted at least a fair share of the leisure I had for scientific subjects, to the study of them, to be asked whether I knew, what I thought every schoolboy was aware of, that we might obtain "an inverted" picture "on a screen by simply allowing the rays of light from the object to pass through a minute aperture, without any lens at all." Mr. Laurence calls it an image, but it is not an image in the sense in which we apply that word to the picture formed by a lens, as there is no crossing of the rays at the place of its formation. It is at least thirty-five years since I was soundly flogged for attempting to convert a small edifice in the garden into a camera obscura by boring a hole in the door.

But to our subject. In the first place let me thank Mr.

(a) Gruel to be made of oatmeal.
(b) Pottage, half milk and half gruel.

Laurence for correcting me on one point—viz., the size of the images, which I find, on more careful examination, are equal. I was misled by the extent of the landscape visible on the lens being smaller, which gave me the idea of its being projected on a larger scale.

With regard to the second point, on which Mr. Laurence denies the truth of my statement, I have nothing to retract. I have again carefully tried, as oft I have tried before, both with tubes and without, to see the image at the focal point, but to my eye it always appears painted on the lens, and never extends the least beyond its margin, as it would do if floating in the air; but as Mr. Laurence appears to be shortsighted, and I could never see at less than ten inches, and twelve is now nearer the mark, I can conceive it possible that his eye may be capable of overcoming the slight divergence of rays which occurs with lenses of long focus after the formation of the image: but let him take a common pocket lens of two inches focus, and if he can see the image then, how does he reconcile the fact with the generally received opinion that the eye can only focalise nearly parallel rays? If he would use the same lens for repeating the experiment, with disk and diaphragm, he would find that for either of them a diameter of $\frac{1}{8}$-inch would be sufficient respectively to obscure or illuminate the whole of it, and would render the experiment more striking than when performed with a lens of long focus, where they are required to be of much larger relative diameter on account of such lenses being generally a much smaller portion of the sphere. Mr. Laurence must excuse my saying that his explanations of those experiments are anything but satisfactory to my mind, and the one to which he especially calls my attention has nothing whatever to do with the matter, as I never said that placing a disc so as to stop rays direct between the lens and one eye would stop those that pass so obliquely as to enter the other.

Of course I have no wish for Mr. Laurence or any one else to adopt my views if they are not true; but he may consider them, perhaps, worth a little further consideration when I tell him that it is more than twenty years since I was first led to adopt them, and have never since seen any reason to alter them; on the contrary, many circumstances previously puzzling became easy and plain, and it was seeing Mr. Laurence acknowledge that he had met with similar difficulties that induced me to write my former letter; I had, indeed, commenced writing direct to Mr. Laurence, but it was suggested that as I had not the pleasure of his acquaintance it might be considered an impertinence, while there could be no objection to my publishing my opinions if you thought them worth a place in your columns.

With regard to "F.R.C.S.," anonymous letters require no notice; he is evidently a very young man, and is wise to place implicit faith in his teachers till his judgment is more matured; he has done well, too, to conceal his name, as he would doubtless in a few years be sorry it should be known that he had written that letter, and regret that "diffidence" had not prevented the exposure of his "mental peculiarity." *Requiescat in pace.*

I am, &c.

Winchmore-hill, November 29. JOHN CRESSWELL.

COMMUNICABILITY OF SECONDARY SYPHILIS BY INTERCOURSE.

LETTER FROM MR. W. ALLINGHAM.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your very able third article on "Modern Syphilographers" you ask this question:—"Can the mother be infected by the semen without having been pregnant?" And add "This has not been satisfactorily demonstrated, etc., etc." With this observation I quite concur; but I have several times seen cases which did appear to point very decidedly to syphilisation of the female by the seminal fluid without pregnancy. Two of my cases especially made a great impression on my mind, and with your kind permission I will briefly relate them, because this is really a very important and practical question; and I think if every Surgeon who has opportunities of carefully observing the varied forms of syphilitic disease would record his cases, we might at least hope to arrive at a more settled belief on many disputed points.

A gentleman, aged 27, very healthy, and residing in the country, came to me and showed me an indurated sore on his prepuce; it had existed four weeks. His wife had been confined one week ago, and he had not been able to have intercourse with her for two months prior to her confinement, as she had been in very delicate health. He could trace the sore to an impure connexion five weeks before my seeing him. Three weeks after our first consultation he manifested well-marked, but not severe, secondary symptoms. The sore was healed in four weeks, and all induration had disappeared at the termination of six weeks, while the rash was fully out upon him. He, having no sore throat, not the slightest symptom of the original sore, or any mucous tubercles, resumed intercourse with his wife, seven weeks having elapsed since her confinement. Between nine and ten weeks after this resumption of connexion, he brought his wife to me with decided secondary syphilis—squamous eruption, small scabs on scalp, sore throat and hoarseness of voice,—an examination with the speculum revealed ulceration of the cervix and copious uterine discharge of muco-purulent character.

It is now more than three years since this case occurred, and the child (which I ordered to be weaned directly I saw the mother) has not had any symptom of constitutional syphilis.

How did the mother become syphilised, if not through the seminal fluid of the male? I do not think that any deceit whatever was exercised towards me, and there was no reason why there should be. Both the wife and husband agreed that no intercourse had taken place for fully two months prior to her confinement; there was every reason to believe that she was a most virtuous woman, and there could have been no opportunity for her being otherwise; so, on the whole, I think it even more than probable that this was really a case where the seminal fluid of the male, without impregnating, induced constitutional syphilis. I would put it as a question, whether the uterus, seven weeks after parturition, was not more than usually susceptible of absorbing a poison?

Case 2.—An officer in the Peninsular and Oriental Company's service, after eight months' absence from England, arrived home two days subsequent to his wife's confinement. He was suffering from secondary syphilis, which he had been affected with some few months, and which had succeeded a primary sore contracted in Alexandria five months before he came home. For his secondary disease he consulted me. He had rather severe psoriasis, no sore-throat, no mucous tubercles, no sore, or remnant of one, on the penis. Between the fourth and fifth week after his wife's confinement he had intercourse with her, and three months afterwards he brought her to me suffering from severe secondary symptoms—ulcerated throat and rash. I was not able to make a vaginal examination. The child was weaned, and, when fifteen months old, presented no symptoms of syphilis. This, perhaps, is not so clear a history as the first case I have related, but still points most decidedly in the same direction.

I am, &c., W. ALLINGHAM, F.R.C.S.,
Surgeon, Great Northern Hospital, and Assistant-Surgeon to St. Mark's Hospital.

36, Finsbury-square, November 28.

MEDICAL EDUCATION AT CAMBRIDGE.

[To the Editor of the Medical Times and Gazette.]

SIR,—On looking over some of the past numbers of your valuable journal, which I do at such intervals as my Professional engagements admit, I read with some interest, in No. 750 of your *Gazette*, a letter signed "Paterfamilias," which pretended to give an account of the Medical student's life in the University of Cambridge.

I was much struck with the opinions therein promulgated—partly true, partly distorted and one-sided; so much so, indeed, that I could scarcely recognise the career of my early youth, when I was myself a Medical student, and did, what "Paterfamilias" does not deem advisable, graduate in arts, and by good luck was a wrangler and scholar of Trinity College. I am now a humble member of that branch of our Profession commonly called "the General Practitioner," and have no reason to regret the time I spent in the University of Cambridge.

As the question of University or no University is at this present time much discussed among the members of the Medical Profession, I will, with your permission, state what from my own personal experience seems to be the best mode of training a youth who is hereafter to hold one of the most responsible positions in society which can be conceived.

I must first assume that a youth intended for that branch of the Medical Profession denominated the "General Practitioner" has been so taught, either at school or at home, as to

be moderately conversant with such Greek and Latin authors as are usually considered sufficient, and also that he has a fair knowledge of arithmetic, Euclid, and at least the elements of algebra. He leaves school, say at 17 years of age, and for six months at least studies pharmacy and the minor operations of Surgery under some duly-qualified Practitioner. If he shows an average amount of talent, and of really industrious habits, he may enter the University. Most of the Colleges require a certificate from some M.A. of a boy's qualifications in classical knowledge before admitting him to commence his residence. No boy whose education has been neglected to the extent supposed by "Paterfamilias" ought to enter. It is not the duty of the University to teach the rudiments of Latin and Greek. If, then, the boy is not industrious nor determined to make his way in the world, it is waste of time and money for him ever to enter the Profession at all. A Medical student who desires to succeed must work hard to attain his object. The next question is, shall he take a degree in Arts or Natural Science? I say, certainly he ought; and I sincerely hope Cambridge will soon follow the example of Oxford, and compel her Medical students to go out in Arts or Natural Science. But can the student study his Profession at the same time? Unquestionably he can; for as soon as he has passed his "little go" he may register and enter himself to the practice of Addenbrooke's Hospital, which will very soon become one of the finest out of London, and attend one lecture either on Human Anatomy, Chemistry, or Botany. Our Profession is founded upon observation; the eye and ear become instructed without much mental effort, and an hour spent three times a week at the bedside of the patient will, at the end of the two years following his "little go," make him master of much practical information. At the same time, however, he is attending classical and mathematical lectures, or those on the Natural Sciences, and preparing for his Degree in Arts, or for the Natural Science tripos. Students of Medicine who have not taken a Degree in Arts, and desire to pass their "little go" at the beginning of their third or fourth term of residence, must also pass at that time the easy additional examination in Algebra, mechanics, and hydrostatics required of all candidates for honours. By doing this they gain two terms for more especial Medical study. They may take a B.A. degree at the end of three and a-half years by passing the examination for honours in the natural sciences. In addition to the high honour thus obtained they have the advantage (if they receive a certificate of having satisfied them from the examiners) of not being obliged to present themselves again for examination in botany, chemistry, or comparative anatomy and physiology when candidates for the degree of Bachelor of Medicine or Master in Surgery.

But "Paterfamilias" objects that "whereas he has probably been previously reading Demosthenes or Æschylus, he finds himself associated in a class where students are poring over Xenophon's Anabasis or Cæsar's Commentaries, &c., a preliminary drudgery to which he is condemned for five terms," etc. "Paterfamilias," perhaps, had not the advantage which I had of attending the College lectures of the late Charles Julius Hare, whose class consisted of men of various degrees of classical attainments and of different intellectual capacities, yet we never left his lecture-room without discovering that there were many things in Cæsar's Commentaries and Xenophon's Anabasis, of which we had no idea, and that it required a really well-informed classic thoroughly to understand them. But our lectures were not confined to these authors: we heard even Cicero and Demosthenes fully explained and most learnedly commented upon. In mathematics I attended the College Lectures of Dr. Whewell, now Master of the College, and those also of Dr. Peacock, late Dean of Ely—both men of European reputation; and I need scarcely say that the information they communicated was vast in amount and excellent in quality; and I sincerely believe that the same mode of education is still adopted at that great and noble Institution. I can also positively assert that the tutors of Trinity give occasionally of an evening a lecture upon their respective subjects to such young men as are disposed to attend. I, therefore, deny that the "college tutors of Trinity College seldom think it worth their while to attend to his advancement, as they are more engaged in drilling the awkward squad," etc. For my own part, if I ever found any difficulties in the course of my reading, I always found them ready to help and advise a rather slow and somewhat stupid fellow over the stumbling-block of book-work.

"Paterfamilias" "maintains that the B.A. Examination at Oxford and Previous Examination at Cambridge are not worth the time and money which are required for passing those ordeals." I quite agree with him. The "little go" to the real student is a nuisance, and only intended to secure some sort of study from idlers; but surely he does not suppose that the Medical students in the University trouble their heads about the school-boy feat of passing the "little go." No; their aspirations seek a higher goal, and I have the great pleasure of knowing many, very many, ardent students of their Profession, who will of necessity become the leading "General Practitioners" of this empire, who have been high wranglers and first-rate classics.

As to expenses, "Paterfamilias" mentions £200 or £300 a-year. He probably includes private tuition in this amount, which is about £70 per annum. I altogether repudiate private "coaching." Mental cramming, either in Cambridge or Oxford, resembles over-feeding; it produces a bad digestion and engenders disease—mental, intellectual disease—and what is worse, destroys that self-reliance so essential to the Medical Practitioner.

The necessary expenses of a student, including college tuition, rent of rooms, attendance, coals, etc., also dinner, tea, and washing, amount to about £70 a-year, as calculated by a college tutor of one of the larger Colleges (*vide Camb. Calend.*, 1864, p. 49). If £30 is added for entertainments, pocket-money, clothes, and travelling, we have an amount of £100. A friend residing in one of the larger Colleges informs me that he knows of instances where the expenses did not exceed that sum. He recommends an allowance in all of about £150 per annum to enable a young man to associate on equal terms with his fellow-students, as well as to pay his necessary expenses. An examination of the charges will not bear out the statement that they are exorbitant. In a College he pays for attendance from £4 to £6 per annum. Room-rent varies greatly; but in cases where it is highest it does not pay the College that interest upon the money expended on building which would have been received if the sum had been invested in the ordinary way. Let it be remembered that Colleges are not obliged to provide rooms for their students, of whom a great number reside in lodgings selected by themselves. I refer to necessary expenses. If young men choose to incur others it is at their own option, but even then the College authorities do all they can to prevent exorbitant charges. College bills are made out in quarters or thirds of a year, as is the custom of each College; it makes no difference. No charge is made in the absence of the student, but the servants have to be paid for the whole year; and it cannot be expected that the Fellows should pay for those retained for the convenience of the students out of their own pockets. The caution money is the large sum of £15, the interest of which is actually lost so long as the student continues connected with any College. In some Colleges immense sums are distributed every year among the students; for instance, St. John's College gives about £6700 (*vide Camb. Cal.*, 1864, p. 336).

In conclusion, let me add that the advantages which the University of Cambridge offers to the Medical student are not dear even at the exaggerated price which "Paterfamilias" estimates them at. They may be summed up as follows:—

1st. By mixing in the society of well-educated gentlemen he becomes a gentleman himself, if he had not the manners of one previously,—no mean acquirement to the Medical man.

2nd. He has abundant opportunities of obtaining at least the rudiments of his future Profession.

3rd. As an M.A., or M.B., or M.C. of Cambridge he claims a position in society equal to that of the clergyman or barrister,—such a position as none but a member of one of the great Universities can claim as his right.

4th. He receives a liberal education, which he can get nowhere so well; his mental training gives him advantages over his contemporaries by inducing a spirit of philosophical investigation which must lead to success.

5th. As candidate for any appointment at home or abroad, a University man (*cæteris paribus*) would certainly be preferred.

Lastly. All these advantages are to be purchased, even admitting the calculation of "Paterfamilias," for £400 or £500, which sum in after life, regarded simply as an investment, will return an interest of £200 or £300 per cent., and with one great advantage over every other investment—the capital can never be lost.

I am, &c.

An Old Medical Student of the University of Cambridge.

MR GRIFFIN'S NEW POOR-LAW MEDICAL RELIEF BILL.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I shall feel obliged by your affording me space to lay before the Poor-law Medical officers the following bill, in order that they may give it their serious consideration prior to the meeting of Parliament. It will be seen that I have thrown upon the General Council of Medical Education, in conjunction with the Poor-law Board, the responsibility of fixing our salaries, which, I trust, will be the means of preventing the opposition of the guardians to the bill. I hope my Medical friends will not object to the establishment of Dispensaries in all densely-populated places, as I feel sure it will not only be beneficial to the poor, but that it will tend to elevate the Poor-law Medical officer in the opinion of the public, and save him a vast amount of time, which might be far better spent than in dispensing medicines.

I am not at present prepared with a member of Parliament to take charge of the bill; if, therefore, any Poor-law Medical officer can induce an honourable gentleman to do so, and will communicate with me on the subject, I will furnish all requisite information. I am, &c.

12, Royal-terrace, Weymouth, December 5. RICHARD GRIFFIN.

A Bill

On the subject of Poor-law Medical Relief, with a view to secure to the poorer classes the most efficient medicines, and to the Poor-law Medical officers a uniform and equitable rate of payment.

Whereas it is expedient to alter and amend the laws relating to the Medical Relief of Poor Persons in England and Wales, be it therefore exacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal and Commons in this present Parliament assembled, and by the authority of the same, as follows:—

1st. That within six months after the passing of this Act it shall be the duty of the Poor-law Board, under the advice of the General Council of Medical Education and Registration of the United Kingdom, to lay down a uniform system of Medical relief for the poor.

2. That the Poor-law Board shall order the establishment of Dispensaries in all those parts of Unions, incorporations, and parishes under Local Acts, where the population resident in an area, the diameter of which is less than four miles exceeds 10,000 in number, and, when they deem it expedient, may unite the Medical departments of two or more Unions, incorporations, or parishes for the purposes of this Act.

3. That in Unions, incorporations, and parishes under Local Acts, or parts of one or the other, where the population is much scattered, the Poor-law Board may allow the Poor-law Medical officers to find medicines for the sick poor, and shall direct the guardians to pay them in addition to their salaries such sum or sums of money as the Poor-law Board, under the advice of the Medical Council of Education and Registration, shall advise.

4. That the Poor-law Board, under the advice of the General Council of Medical Education and Registration of the United Kingdom, shall fix the salaries of all the Poor-law Medical officers, whether Union, parochial, or under local acts in England and Wales, on a uniform and definite principle, especial regard being had to the number of sick poor attended by them and the distance to be travelled.

5. That the Poor-law Board, under the advice of the General Council of Medical Education and Registration of the United Kingdom, shall draw up a list of cases for which extra Medical fees shall be paid, and also fix the amount of money which shall be allowed for each case on such list; but should the guardians be desirous to commute the extra Medical fees, they may be allowed to do so on making a triennial calculation of the amount of fees which have been paid during the preceding three years, and adding them to the salary, but where the fees have already been commuted that then a calculation of the cases where fees would have been payable but for the commutation shall be made, and the amount added to the salaries.

6. That all medicines found by Boards of Guardians or their Medical officers, all salaries, and all extra Medical fees, shall be paid for out of such monies as shall be annually voted by Parliament for the purposes of Medical Relief and by the Boards of Guardians in equal shares and proportions, or in default of any Parliamentary grant for the purpose, then the whole payment shall be a Union charge.

7. That the Poor-law Board shall annually lay before Parliament a classified report of the diseases treated by the Poor-law Medical officers in each Union, incorporation, or parish under a local act in England and Wales, and also the number of deaths occurring in each class.

8. That the statutes now in force, or rules, orders, and regulations of the Poor-law Commissioners or Poor-law Board, or parts of either one or the other, which are contrary to the true intent and meaning of this act, shall be and they are hereby repealed and rescinded, and from and after six months from the passing of this Act shall have no force or effect, but nothing herein contained shall prevent the Poor-law Board issuing any order or orders, or making any rule or rules, or regulations, for the better carrying out the true intent and meaning of this Act.

ROYAL INSTITUTION OF GREAT BRITAIN.—At the General Monthly Meeting held on Monday, December 5, 1864, William Pole, Esq., M.A., F.R.S., Treasurer and Vice-President in the chair, John J. E. Mayall, Esq.; Charles Robinson, Esq.; Mrs. Harriet Scott; George Tetley, Esq.; William James Thompson, jun., Esq.; Arnold White, Esq.; and Edward Williams, Esq., were elected members of the Royal Institution. The Chairman announced the following addition to "The Donation Fund for the Promotion of Experimental Researches:"—Miss Harriet Moore (second donation), £50. The presents received since the last meeting were laid on the table, and the thanks of the members returned for the same.

THE NEW INDIAN SCHEME.

Military, No. 340. INDIA OFFICE, London, November 7, 1864.

To His Excellency the Right Honourable the Governor-General of India in Council.

(Continued from page 611.)

28. The salaries of the principal administrative and military appointments are fixed at the following consolidated sums:—

	Rs.	
Inspector-General . . .	2500	whether of the British or
Deputy-Inspector-General . .	1800	Indian Medical Service.
Surgeon-Major in charge of Native regiments	1000	with Rs. 90, horse allowance in Cavalry regiments.
Surgeon in charge of ditto . .	800	with Rs. 90 ditto.
Assistant-Surgeon above 5 years' full-pay service in charge of Native regiments . . .	600	with Rs. 60 ditto.
Assist.-Surgeon under 5 years' do.	450	with Rs. 60 ditto.

But officers now in the Indian Service will receive the pay due to their rank as laid down in para. 10 of my Despatch, No. 152, of 16th May, 1864, when such pay is in excess of the consolidated salaries above mentioned.

29. Officers who may hereafter be appointed to the Indian Medical Service will receive pay when unemployed in India according to the following scale:—

Rank.	Years' service.	Unemployed pay. R. A. P.
Surgeon-Major	25	888 12 0
Ditto	20	852 3 7
Surgeon	15	677 6 11
Ditto	12	650 14 6
Assistant-Surgeon . . .	10	410 9 5
Ditto	6	392 5 2
Ditto	5	304 14 2
Ditto	under 5	286 10 0

30. The salaries of other Medical appointments in the Civil and Military Departments will be revised with reference to the above, and fixed at a consolidated sum, and I request that a report may be made to me upon the subject with as little delay as possible. In the mean time, the aggregate sums at present received in each case will continue to be drawn.

31. With a view of promoting the efficiency of the Service, it has been further determined that the tenure of office by a Deputy-Inspector-General of the Indian Service shall, as in the case of Inspectors-General, be limited to five years; officers being, however, if not disqualified by age, eligible either for employment for a second tour of duty in the same grade, or for employment in the higher grade of Inspector-General by promotion thereto.

32. You will follow, in the cases of officers now holding the office of Deputy-Inspector-General, the same course which your Government adopted in 1861, in regard to combatant officers holding certain staff appointments, and permit all such to hold their offices for two years longer, irrespective of the periods they may severally have served in them. Should any officer have served up to the present time less than five years, he will be allowed to complete a full period of seven years.

33. The rank of Inspector-General and Deputy-Inspector-General conferred upon officers of the Indian Medical service under the Royal Warrant of the 13th January, 1860, is to be considered as substantive rank.

These officers, on vacating office at the expiration of the five years' tour of duty, will be permitted in future to draw respectively an unemployed salary of rs. 1200 per mensem in the former, and rs. 900 in the latter case for a period of six months from the date of their vacating office, after which they will be placed while unemployed on the rate of pay laid down in my Despatch of the 16th May, 1864, for officers of corresponding rank in Europe. These sums, deducted from the consolidated salary, will regulate the moiety of staff salary to be drawn by officers of those grades during absence on sick certificate. The decision reported in the third paragraph of your letter, No. 242 of 1854, will cease to operate from the date of publication of the present Despatch.

34. With a view to improving the position and prospects of officers of the Indian Medical Service, it has been resolved to introduce prospectively the following revised pension rules.

35. Officers of the Indian Medical Service will be allowed to retire on the following scale of pension, on completion of the required periods of service:—

After 30 years' service in India	£550
,, 27 ,, ,, ,, ...	456
,, 24 ,, ,, ,, ...	365
,, 21 ,, ,, ,, ...	292
,, 17 ,, ,, ,, ...	220

36. An Inspector-General, after five years' active employment in India in that grade, will be entitled to retire upon a pension of £350 per annum, in addition to that to which he may be entitled under the above scale.

37. A Deputy-Inspector-General will, after five years' active employment in India in that grade, be entitled to retire upon a pension of £250 per annum, in addition to the pension to which he may be entitled under the above scale.

38. In each of the above cases six months' absence on Medical certificate will be allowed to count towards actual service in those grades.

39. Officers now in the Indian Medical Service will, on retirement, have the option of pension according to the above rules, or according to those now in force.

40. My attention has been directed on this occasion to the rule regarding the qualification of an Assistant-Surgeon for promotion to the rank of Surgeon required under Clause 3 of the Royal Warrant, dated 13th January, 1860. There can be no doubt that this rule, which has been again brought to notice by a recent despatch from your Government, requiring a service of two years in or with a regiment, bears very hardly on many officers, the nature of whose employment precludes their showing the required qualification, and who, on entering the service, had no reason to suppose that such a regulation would be adopted.

41. These considerations have induced me to consent to exempt from the operation of the clause of the Royal Warrant all the Assistant-Surgeons

who entered the service prior to its date. It is to be understood, however, that the rule is to be strictly enforced in the case of all Medical officers who entered the service after January, 1860.

42. In my Despatch, No. 152. of May 16, 1864, para. 7, I informed you that Her Majesty's Government had determined to modify the instructions given in my Despatches of October 31, 1860, and September 30, 1861, and to permit the period of service qualifying Surgeons for the rank of Surgeon-Major, under that warrant, to be calculated from date of first commission, including all leave of absence of whatever kind.

43. I have now to inform you that the same principle is to be observed with respect to the grant of honorary rank on retirement, under the Clause 14 of the Royal Warrant, and that the 25 years' service qualifying for a step of honorary rank, the requirements of the clause in other respects being fulfilled, shall be inclusive of all leave of absence.

44. I have further to inform you that it has been determined, as in the case of combatant officers of the Indian Army, to confer upon the Medical officers of that service Royal Commissions in substitution for those which they now hold, conferring rank in Her Majesty's Service in any part of the world. The Medical officers of Her Majesty's Indian Service will not, however, be required to serve out of India, except with their own consent.

45. I have, lastly, to inform your Excellency that Assistant-Surgeons appointed to Her Majesty's Indian Service in future will not be called upon to become subscribers to any military or Medical funds, and that Her Majesty's Government have determined to guarantee to present incumbents on and subscribers to the several Medical Funds the annuities and pensions to which they are, or to which they, their widows and children, may become entitled from those funds, according to the regulations now in force, and at the present rates of subscription. But this guarantee must be regarded as conditional on the absolute transfer of the assets of the fund to the Government, and must not be construed as conveying to any fund, or to any member of it, benefits which are not actually provided for in the regulations as at present in force.

46. The widows and children of Medical officers hereafter appointed to Her Majesty's Indian Service will be granted pensions not less than those to which they would be entitled under the provisions of the Royal Warrant of June 15, 1855.

47. The above measures, which obviously tend greatly to improve the condition and prospects of the Medical Service in India, cannot be carried out, as your Government will at once perceive, without a heavy expense to the State. It is hoped, however, that the result will be at once to diffuse a spirit of satisfaction and contentment among the officers now in the service, and to secure for the future a certain supply of Medical officers of good social position, liberal education, and Professional ability for Her Majesty's Service in India.

I have the honour to be, Sir,
Your most obedient, humble servant,
(Signed) CHARLES WOOD.

MEDICAL NEWS.

UNIVERSITY OF LONDON, 1864.—M.D. EXAMINATION.—Pass List:—

John Wale Hicks, B.A., B.Sc., St. Thomas's Hospital; James Usher Huxley, King's College; Henry Thomas Lanchester, St. Bartholomew's Hospital; John Nicholas Miller, University College; Walter Moxon, Philip Henry Pye-Smith, B.A. (Gold Medal), and Thomas Stevenson, Guy's Hospital.

SECOND M.B. EXAMINATION, 1864.—EXAMINATION FOR HONOURS:—

MEDICINE.

First Class.—Palemon Best (scholarship and gold medal), University College; Thomas Fairbank (gold medal), St. Bartholomew's Hospital; Edward Lloyd Harries Fox, University College; Charles Albert Hingston, St. Bartholomew's Hospital, and Henry Law Kempthorne, King's College, equal.

Second Class.—William Carter, Charing-cross and St. Thomas's, Edward Casey, King's College, John Harward Hooper, St. Thomas's Hospital, and Frederick Simms, King's College, equal.

Third Class.—John Albert Nunneley, Leeds and Guy's Hospital; Ebenezer Ludlow, St. Bartholomew's Hospital.

MIDWIFERY.

First Class.—Edward Lloyd Harries Fox (scholarship and gold medal), University College; John Jones Phillips (gold medal), Guy's Hospital; Thomas Fairbank, St. Bartholomew's Hospital.

Second Class.—Henry Law Kempthorne, King's College; Charles Albert Hingston, St. Bartholomew's Hospital; Edward Casey, King's College; William Carter, Charing-cross and St. Thomas's; John Harward Hooper, St. Thomas's Hospital.

Third Class.—Ebenezer Ludlow, St. Bartholomew's Hospital; John Albert Nunneley, Leeds and Guy's Hospital.

FORENSIC MEDICINE.

First Class.—Edward Lloyd Harries Fox (scholarship and gold medal), University College; Thomas Fairbank (gold medal), St Bartholomew's Hospital; William Carter, Charing-cross and St. Thomas's.

Second Class.—Edward Casey, King's College; Henry Law Kempthorne, King's College.

Third Class.—Frederick Simms, King's College; Charles Albert Hingston, St. Bartholomew's Hospital; Ebenezer Ludlow, St. Bartholomew's Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such on the 8th inst., viz.:—

John Forbes, Royal-crescent, Notting-hill, diploma of membership dated April 10, 1827; Robert Garner, Stoke-upon-Trent, March 4, 1831; John James Tweed, Upper Brook-street, July 25, 1842; and Frederick Wallis, Bexhill, Sussex, December 16, 1842.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, December 1, 1864:—

Charles Henry Butlin, Camborne, Cornwall; Frederick Henry Appleby, East Retford, Notts; Robert Edward Owen, Guy's Hospital; George Benson Baker, Cross-street, Islington; Thomas Markby, St. George's Hospital; Robert Charles Earle, Totnes, Devon; Charles Meymott Tidy, The Hollies, Cambridge-heath; Robert Farrar, Brideoake, Leigh, Lancashire.

The following gentlemen, also on the same day, passed their First Examination:—

Charles Lyon Ridout, St. George's Hospital; John Challon Duke, King's College.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BOUSTEAD, ROBINSON, M.R.C.S.E., of H.M.'s Bombay Army, has been appointed to the sole Medical charge of H.M.'s 27th Regiment N.I., in Beeloochistan.

BURT, JOHN G. M., F.R.C.P. Edin., F.R.S., has been re-elected President of the Royal College of Physicians, Edinburgh.

CARRICK, GEORGE L., M.D. St. And., has been appointed Physician to Her Britannic Majesty's Embassy at St. Petersburgh.

EARNSHAW, H. GRANGER, M.R.C.S. Eng., has been appointed a Sub-Inspector of Factories.

GARLICK, WILLIAM, M.R.C.S. Eng., has been elected Assistant House-Surgeon to the Chester General Infirmary.

GLOVER, J. G., M.D., has been appointed Honorary Surgeon to the Holloway and North Islington Dispensary.

MILES, THOMAS, M.R.C.S. Eng., has been appointed Surgeon to the Royal Kent Dispensary, Greenwich.

RODEN, WILLIAM, M.D. St. And., has been re-elected Mayor of Kidderminster.

ROPER, A., M.R.C.S. Eng., has been appointed Surgeon to the Royal Kent Dispensary, Greenwich.

ROYSTON, CHARLES, M.D. St. And., has been appointed Public Vaccinator for the South-western District of Ward No. 1 of the Paddington Union.

TEMPLE, T. B., M.R.C.S. Eng., has been appointed Visiting Surgeon to the Lying-in Hospital, Brisbane.

WALL, J., M.D., has been appointed Demonstrator of Anatomy in the Carmichael School of Medicine and Surgery, Dublin.

WEBB, Dr. EDWARD LOWE, of 9, St. George's-road, Pimlico, has been appointed Medical Officer to the Out Ward of the Parish of St. George, Hanover-square.

DEATHS.

BOWER, E. R., M.R.C.S. Eng., at Carrick, Tasmania, on August 15, aged 61.

BULL, GEORGE, M.D., at Lewes, Sussex, on November 24, aged 36.

FORD, CHARLES G.E., F.R.C.S. Eng., on board the *Persia*, on October 5, on his passage from Rangoon to Calcutta, Surgeon H.M. Madras Army.

FRY, JOHN CORNWALL, M.R.C.S. Eng., of Ballyfarnon, Co. Roscommon, on October 20.

GRAHAM, J. C., M.D., at Blackett-street, Newcastle-on-Tyne, on November 11.

HANSON, Dr. CHARLES S., at 28, Cannon-place, Brighton, on November 25, aged 45.

HAWKINS, FREDERICK, M.D. Edin., at Hitchin, Herts, on November 27, aged 68.

HOLDEN, GEORGE H., M.R.C.S. Eng., of Presteign, at Mortimer's-cross, near Leominster, on November 26, aged 24.

HUDSON, JOHN M., M.R.C.S. Eng., of Chester-le-Street, Durham, on November 12, aged 64.

KENT, BENJAMIN A., M.D., of Ryde, at Dover-street, Piccadilly, W., on November 25.

MCDONALD, Dr. CHARLES F., at Bendigo, South Australia, in March last, formerly of the Old Kent-road.

MORGAN, CHARLES, Surgeon, at Hopton, Suffolk, on November 18, aged 78.

PARRY, RICHARD L., M.D., at Amlwch, Anglesey, on November 19.

TARLETON, WILLIAM, F.R.C.S. Eng., at Heath-green, Birmingham, on November 30, aged 51.

TAYLOR, JOHN, L.R.C.P. Edin., at 222, Old Kent-road, S.E., on November 29, aged 64.

WOOD, CHARLES B., Surgeon H.M.S. *Orlando*, drowned off Tunis, on November 3.

THE EDINBURGH ROYAL COLLEGE OF PHYSICIANS.—At the annual meeting of the Royal College, Dr. Burt was unanimously re-elected President of the College. The election dinner took place in the evening, in the hall of the College in Queen-street, when among the guests present were—the Right Hon. the Lord Provost, his Grace the Duke of Argyll, the Lord Advocate, Lord Neaves, Mr. Whyte Melville, Mr. Bell, President of the Royal College of Surgeons, and his council; Dr. Ritchie, President of the Faculty of Physicians and Surgeons of Glasgow; Professors Moir and Spence, Dr. Currie, C.B.; and the Medical officers of the garrison, etc.

University College, London.—At the Session of Council on Saturday last, on the application of Dr. Risdon Bennett, free admission was granted for three or four students of the London Missionary Society to the Medical and Surgical practice of the Hospital, with a view to their having the opportunity of gaining Medical knowledge which may be of service to them in such emergencies as they have to deal with in the course of missionary life.

Capital Punishment Commission.—Meetings of the Capital Punishment Commissioners were held on Wednesday, the 30th ult., and Thursday, the 1st inst., at which the Duke of Richmond, the Right Hon. S. Lushington, D.C.L., the Attorney-General for Ireland, Mr. H. Waddington, Mr. W. Ewart, M.P., Mr. Gathorne Hardy, M.P., Mr. C. Neate, M.P., and Mr. G. Ward Hunt, M.P., attended. The Secretary, Mr. J. H. Patteson, was also present.

Contagious Diseases Act.—The first informations laid under the provisions of this Act at Portsmouth were laid on Saturday, December 3, before the borough bench of magistrates, by Mr. Superintendent H. Guy, metropolitan and dockyard police, and in charge of Portsmouth dockyard, for two notices under the 15th section of the Act. It is believed by the naval and military authorities that the working of the Act will be all that its promoters can wish. The towns affected by the Act are Portsmouth, Plymouth, Chatham, Sheerness, Aldershott, Colchester, and Shorncliffe, in England, and the Curragh, Cork, and Queenstown, in Ireland.

Dublin Obstetrical Society.—The first meeting of the twenty-seventh annual session of the above Society was held on Saturday evening, the 3rd instant, in the Pillar-room of the Rotunda, and was very numerously attended. The chair was taken by the outgoing President, Dr. Denham, Master of the Lying-in Hospital, who delivered the annual address. The ballot for officers for the ensuing year having closed, the following were declared duly elected:—*President*—Dr. Churchill. *Vice-Presidents*—Drs. Hardy and M'Clintock. *Treasurer*—Dr. Halahan. *Secretary*—Dr. G. H. Kidd. *Committee*—Drs. Beatty, Byrne, Cronyn, Denham, and Henry Kennedy.

Living in Cellars.—A recent report of Captain Lord, of the sanitary police of New York, states that in that city, with not more than a million of people, upwards of 22,000 live in cellars—a subterraneous population large enough for a small city in itself.

A Re-vaccination Panic.—It is stated that in consequence of some fatal cases of small-pox having occurred at Lille, the inhabitants have been seized with almost a mania for re-vaccination. The doctors scarcely know how to turn themselves round so numerous are the applications, so that they have the greatest difficulty to find time to attend their ordinary patients. It has become necessary to require that the applicants should enter their names some days beforehand, and it is said that one Practitioner had to practise re-vaccination on thirty-five persons in one morning at his consulting-room.

The Great Auk in England.—Amongst the remains brought to light at Caithness by Mr. Laing are many bones of the great auk, now extinct. This, we believe, is the first time any trace of this bird has been discovered in Great Britain. The bones have been identified by Professor Owen.

Advertising Quacks.—Dr. Toogood, of Torquay, in a letter to *The Times* of December 3, relates, as having occurred within his knowledge, the following case, which out-herods even that of the convicts Henery and Anderson:—"The plaintiff, residing in a fashionable city in the west, brought an action against the widow of a colonel in the army for the recovery of £1100 for Medical attendance. It appeared on the trial that this highly nervous lady was persuaded to consult this man for a supposed disease, who not only confirmed her apprehensions, but assured her that nothing but immediate treatment and the greatest skill could prevent a fatal termination. He obtained so complete an ascendancy over her mind that she at once placed herself under his care. At first he refused fees, stating that her case would require a long attendance, and that he preferred leaving his remuneration until the end. About a year afterwards her cure was pronounced to be complete, when he demanded the sum of £800, which was paid. He then said that no fear need be apprehended of a return of her disease, but that he should occasionally call on her, but that his visits would be friendly ones, for which no charge would be made. The lady acknowledged his visits by frequent presents to his daughter, and, among others, a handsome piano. As some uneasiness was shown at the continuance of this unnecessary attendance, he alarmed his patient by expressing his doubts that there was a tendency to a return of the disease. After some time he made a second demand for £1100! She then consulted her friends, who advised her to resist so barefaced an attempt at robbery, and urged that it was a duty she owed to herself and the public. Her innate delicacy and the dread of exposure made her hesitate for a time, but at length she yielded to their solicitations. The evidence so satisfied the jury that this unfortunate lady had never had a symptom of the disease for which she had been so cruelly treated and defrauded, that they returned a verdict for the defendant without leaving the box."

The Late Ophthalmic Trial.—Purulent ophthalmia is not at all uncommon amongst newly-born children of all ranks; and, if taken in time, is usually so easily subdued by mere cleanliness, aided by a weak astringent lotion, which any careful nurse can apply by means of a few bits of old rag, that there are few Practitioners who would feel greatly put on the *qui vive* by it. At any rate, if the eyes became very bad, the Accoucheur would naturally expect that the parents would send and give information about it. Or if it so happened that a Medical neighbour "looked in as a friend" and saw that a baby's eyes were really very bad with this form of ophthalmia, and that the Practitioner in attendance did not seem to be enough on the alert, he would probably tell the parents that they ought to let Mr. —— know how bad the eyes really were. At the same time, as *amicus*, he might volunteer a prescription to fill up the gap, and stop all mischief till Mr. —— should arrive. When he had done this, he would feel that he had done his duty to the child and to his neighbour Practitioner—that he had saved the eyes of the one and the reputation of the other, and that he had done as he would wish his own neighbour to do to himself. If a certain Medical man had thus acted, he would have saved us the scandal of a late Medical trial about bad eyes. He would further have saved us from the tyrannical attempt which counsel and skilled witnesses sometimes make to establish one plan of treatment, or one sort of application, as the only legitimate one, *not* to use which is charged as an act of negligence. Thus the question was raised, in the trial to which we refer, whether it was an act of negligence not to use a *syringe* in purulent ophthalmia? Most of us would much prefer a bit of old rag as an instrument in Mrs. Gamp's hands to a syringe which might probe a hole in a tender cornea, or spurt a contagious discharge into some bystander's eyes. But the establishment of arbitrary rules like these is one blessed fruit of the peace and goodwill which reigns amongst Medical neighbours, and of their care to do to others as they would be done by themselves.

The Anthropological Society.—At the ordinary meeting of this society, on Tuesday evening, a most interesting paper was read by Mr. S. Laing, late Finance Minister for India, "On the Pre-historic Remains of Caithness." Mr. Laing communicated the particulars of some researches recently instituted by him on the shore of Sinclair's Bay, about eight miles north of Wick. He had there examined several shell mounds and a burial mound, and had succeeded in obtaining from them a series of very perfect skulls and other parts of human skeletons. The burial mound was at least half a mile long and about eighty or ninety yards in breadth, within which space were found numerous cysts containing human skeletons. There were no traces of dwellings, of the action of fire, or of refuse heaps in connexion with the burial mound, a few of the cysts only containing some shells and bird bones, probably placed there as food for the deceased. One skeleton of a man of large proportions was found in company with a series of stone weapons, which were among the rudest ever used by man. The other mounds were the sites of ancient dwellings, one of which was clearly super-imposed upon a shell mound, composed chiefly of periwinkle shells and some animal bones and teeth chipped into small fragments. Arrow heads and pieces of bone of the rudest construction were also found. In one place the fragment of a human lower jaw was found, which evidently had belonged to a child of about seven years of age, and as no other trace of human bone was found in the same spot, coupled with the fact that another isolated fragment of human jaw had been found in another midden, and both under circumstances precisely similar to those of the deer, pigs, and oxen by which they were surrounded, a fair presumption was raised that the aboriginal savages who inhabited Caithness were occasionally cannibals,

a character which Lyell, judging from the Danish Kjökken-möddings, had not attributed to the primeval Danes. Two other mounds disclosed structures of unhewn stone, which were possibly places of worship or sacrifice for the rude tribes which formed them. In summing up the results of his researches, Mr. Laing referred the cysts and skeletons in the burial mound to the early stone period, and, judging from their contiguity and identity of character in the articles found, he considered that the other mounds had been the dwelling-places of the same race as was associated with the burial mound. The skulls varied in characteristics, one being almost equal to the best British, while others approximated to the lowest known type of humanity. There were no proofs of intercourse with other people, and the arts of that aboriginal race were of the most imperfect description. The reading of the paper elicited the applause of the Fellows, the thanks of the meeting being voted to Mr. Laing for his valuable contribution. Professor Owen expressed his delight at having been present upon so interesting and instructive an occasion. From a hasty inspection of the skulls produced he was disposed to agree that they belonged to a race of southern origin. From certain indications on the fragmentary jaw of a child which had been produced he could not help thinking that cannibalism was practised occasionally by the race to which it had belonged. A paper by Mr. G. E. Roberts, on the discovery of a large kistraem in the Muckle Heog in the island of North Shetland, with notes upon the human remains found therein, was read by Mr. C. C. Blake. In the discussion which followed, Professor Owen expressed his opinion that the skulls found in Shetland, and now produced, greatly resembled the skull of the aboriginal black native of Australia. The discussion was continued by Sir C. Nicholson, Mr. A. Tyler, Mr. Brudyshe, Mr. Reddie, and Mr. Macleay, and ultimately the further consideration of both papers was adjourned until the next meeting.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

We regret that we have not room this week for Dr. Allbutt's letter. It shall have early insertion.

A Third Years' Student, Manchester.—The next examination will take place in January for both "*primary*" and "*pass.*"

A Provincial Surgeon.—From inquiries made, it has been ascertained that the next examination for the "L.M." will take place about Christmas.

Dr. McCormac.—Send us your work when out; we will have it carefully collated with the other, and if the plagiarism be established we will make the best use of it. There is no law against proceedings of the sort, and if the public are gullible, the affair may go on swimmingly for a time. We must be thankful for small mercies, and as the *Times* has set the example of repudiating the advertisements of the dirtiest of quacks, we may hope it will in time see the iniquity of publishing those long pseudo-Medical advertisements which are evidently intended to terrify the weak-minded and hypochondriacal.

A Naval Surgeon, Plymouth.—The Blane medal was founded *about* 1834 by Sir Gilbert Blane, Bart., the Director-General of the Naval Medical Department. The first award of the prize was in 1835 to Dr. John Liddell, Surgeon of H.M.S. *Asia;* Dr. William Donnelly, of H.M.S. *Hussar;* Dr. John Wilson, of H.M.S. *Warspite;* and Mr. R. P. Hillyar, of H.M.S. *Caledonia.* The two first of the above gentlemen received the medal direct from the founder, the last two gentlemen received the prize on the recommendation of the Presidents of the Royal Colleges of Physicians (Sir Henry Halford) and Surgeons (Mr. Guthrie), with Sir William Burnett as Director-General.

Scientific Congresses.—When John Girder declared that whatever "was perfectly uneatable might be given to the poor," he enunciated the grand maxim of scientific congresses; these wonderful meetings of world-famed men being very little else than grand gatherings for the disposal of rejected articles. What the originators of such societies intended, what they meant or hoped for when they instituted them, is clear and clean beyond me. I never met yet the man who owned he had gleaned anything from their lucubrations. I never saw the woman who did not come away more conceited and self-opinionated from having frequented them. First of all, they are not congresses at all, for the discussional element in them is at the very lowest. When I have read my paper on the "Prismatic formation observable in maiden ladies of advanced years," another opens with a "Remarkable phosphorescence in the eyes of sanguineous gentlemen when they discuss the poor-rates;" but nobody disputes, nobody inquires into, nobody investigates these. A timid naturalist at the end of the room will, perhaps, hint that something or other in his own experience has not corroborated the learned gentleman's most interesting paper; but the President comes down at once with his vote of thanks, and there's a great clapping of hands and scraping of feet, and they all rise and go off to tea, "dreary companions every one!" The only bit of real cleverness I have ever detected in these "scientific" swells is the choice of the place they meet in. I have not tested the fact by experiment, and therefore I am ready to offer an honest wager on it, that if you'll take up a census return you'll always find that the place they select will have an overwhelming proportion of the female population. In this way they are like the monks of old, who had an aptitude for a neat locality that has never been surpassed. If you place a civil engineer on the top of a mountain he'll tell you very soon where there will be water, and generally, too, what direction the streams will run in; and I'd back a scientific congressite to hit off the spot where rooms full of green-veiled goddesses will be found, and where the dreariest old chemists and archæologists will be fondled and fêted and pampered for ten days or a fortnight, as if they were Phaetons or Apollos. This is the real secret of the whole thing; it is what the Cockneys call an "outing."—*Blackwood's Magazine.*

Erratum.—In the letter signed F.R.C.S., *Medical Times and Gazette*, November 26, 1864, p. 580, *for* "place of a conjugate focus" *read* "plane of a conjugate focus."

Mrs. Walker, of Creek, near Rugby.

The following subscription has been received at the office of the *Medical Times and Gazette*:—William Forbes Goss, £5.

The Griffin Testimonial Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The following subscriptions have been further received on behalf of the above fund:—J. A. Ledgard, Esq., Wetherby, 5s.; J. P. Knott, Esq., Towcester, 5s.; W. D., 5s. Per Dr. Luce:—Robert King, Esq., Uxbridge, 5s.; G. H. McNamara, Esq., £1 1s.; Dr. J. J. Luce, £1 1s. Amount previously announced, £105 2s. 6d. Received at the *Lancet* office, £6 14s. I am, &c.

Robert Fowler, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, December 7.

The Goss Testimonial Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I beg to enclose the second list of subscriptions to the above fund, which I shall feel obliged by your publishing in this week's *Medical Times and Gazette*:—The Proprietors of the *Medical Mirror*, £1 1s.; C. J. B. Aldis, 10s. 6d.; J. Brady, M.P., 10s. 6d.; F. Blackman, 10s. 6d.; R. Buswell, 10s. 6d.; J. Cooper, 10s.; G. Fowler, 10s. 6d.; G. Hewitt, 10s. 6d.; B. Hicks, 10s. 6d.; W. Harvey, 10s. 6d.; Hy. Johnson, 10s. 6d.; Edwd. Jones, 10s. 6d.; H. H. Massey, 10s. 6d.; H. Meadows, 10s. 6d.; A. M. M'Whinnie, 10s. 6d.; J. R. M'Impris, 10s. 6d.; H. K. Owen, 10s. 6d.; P. M. Powell, 5s.; G. Roper, 10s. 6d.; T. Remington, 5s.; T. Skaife, 10s. 6d.; W. Soper, 10s. 6d.; W. Wood, 10s. 6d.; Edwd. Willett, 10s. 6d.; J. J. Williams, 10s. 6d.; W. H. Wilshire, 10s. 6d. I am, &c.

30, Newington-place, S., December 7. Nowell Stowers.

The Advertising Quacks.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Though agreeing with most of Dr. Beale's remarks in your last number with regard to the advertising quacks, I regret that he did not state what I conceive to be the only justifiable reason which members of our Profession can bring forward for not denouncing and exposing to the utmost the iniquitous practices of the scoundrels in question.

The fear of having interested motives imputed to us, or of having actions for libel brought against us, seems a very paltry excuse for withholding our condemnation of such men and their vile trade; but when we consider how difficult it must be to expose the impostor without bringing the innocent and unfortunate victim into disagreeable publicity, it becomes a question whether any individual member of the Profession is justified in doing so.

Still instances must occasionally occur in which the quack might be denounced without implicating the patient, and I consider in such cases it would be the duty of the regular Practitioner to expose any criminal or illegal acts which may have come to his knowledge, in spite of any personal risk which he might incur.

So long as the quack keeps within the bounds of legalised imposture any denunciation of individuals would be useless or even mischievous; but when we have clear evidence that he has transgressed those limits, and has indulged in the more exciting, but more dangerous games of extortionate swindling, threatening letters, and abortion-mongery, I would no more think of screening his rascality than I would of saving a pickpocket from the treadmill or a murderer from the gallows.

27, Montague-street, Dec. 5. I am, &c. W. Spencer Watson.

Hamburg Wines.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I have had my attention called to an article by your Empirical Commissioner, and regret that the whole of my circular of October last was not given, instead of parts only. I particularly invited investigation of my business; my stores are open to the inspection of any, your Empirical Commissioner included; there is no mystery in the affair. I feel that with no facts to support him his remarks are unfair; more particularly is it unjust to put the mere insinuations of a writer, by his own admission ignorant of what he is writing about, in the light of evidence against my distinct statements.

That crude young genuine wine can be had at prices that the English public has no conception of, reference to the papers of Spain, France, and Germany of the present moment will prove. A useful book for those who prefer translations will be found in the "Reports of H.M. Secretaries of Embassy and Legation on the Effect of the Vine Disease on the Commerce of the Countries in which they reside." Presented to Parliament by command, 1859. Published by Harrison and Sons, London. And I would suggest to your Commissioner a perusal of this book, and a glance at the price of wines in the valley of the Neckar, across the Palatinate, through into France, down the Rhone, by the borders of the Mediterranean, and up through the country to Bordeaux, the millions of gallons of genuine useful wines he will see at a price under 6d. per gallon will re-assure him and explain where the wines come from that he can see here, and which will ultimately go to England.

I believe that the wine business is not so abused here as in Spain, and this the trade in England appears now to be finding out, for, notwithstanding all the opposition of the Spanish manufactured wine interest, persecution has profited me, and my business during the last year has doubled. This fact, coupled with the stringent investigations caused by the present restrictive regulations of the English Custom-house, seems a good practical corroboration of the statement that my shipments are genuine wines.

I am, &c.

Hamburg, December 2. EDWARD CHAPLIN.

ARMY MEDICAL SERVICE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—To prolong the correspondence on the grievances of the Army Medical Department would amount to an absurdity; all that could be said or written has been; Professors, from their chairs, have told them to their classes, and given sound advice, unfortunately disregarded by too many. The Medical press (none more so than the *Medical Times*) has devoted its columns, strenuously and honestly, to the same subject, and with what results?

The authorities, sooner than do justice, and remove the obstructions that keep back young men of position, both social and Professional, from joining the service, have lowered the standard of education for admission, and created a doubtful class, called Acting Assistant-Surgeons, to be admitted without any examination as to Professional acquirements, and even unto the age of 40. By the way, I see in a late *Gazette* that Her Majesty has already dispensed with the services of one of Dr. Gibson's new creation; this speaks well for the body.

By Dr. Gibson's last advertisement for candidates, the subjects for examination have assumed a new phase: they are now "obligatory and optional." In the year 1860, all those subjects were compulsory, and yet the applicants outnumbered the vacancies; but in 1864, after the dishonest conduct of the War Office in rendering nugatory Her Majesty's Warrant of 1858, they have to be divided to induce candidates of a certain class to coms forward; and even this candid admission, that none shall be rejected from severity of examination (even Dr. Parkes' "trochar men" would now stand a good chance of success), is not sufficient to provide a full supply. Poor Ireland, with her Queen's Colleges and "Professor Crimps," has done, and is doing much.

The question now is, what more can be done? Much, I believe, by appealing to the good sense of the country through the House of Commons. This is not a Medical man's question merely: I say, the combatants are more deeply interested in it than they will let themselves believe: a regiment represents but two Medical men, while it contains some twelve hundred men, women, and children—twelve hundred lives in the hands of two, whether skilful or the reverse. The London *Times*, when writing on this subject, remarked—"Government might as well supply an army with inferior weapons of war as with uneducated Surgeons,"—a most true remark, for more die from the friendly knife than the hostile bullet.

Members of Parliament, when spoken to on this subject, generally reply that they are most willing to bring the matter forward, but are ignorant of the particulars of the case. Now, to meet this deficiency, I would suggest the propriety of publishing a short, clear, and temperate pamphlet for gratuitous circulation amongst Members, setting forth the grievances of the Army Medical Department, and asking their assistance to have them redressed. This, of course, would require some small amount of money, but I feel there would be no difficulty in raising the sum required by subscription from those interested in the result. I will gladly contribute my quota.

I am, &c.

AN EX-ASSISTANT SURGEON.

SWALLOWING A PIN.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Dr. Dickie, your correspondent in the *Medical Times* for Nov. 26, will find a case of pin swallowing similar to his own, recorded by me, in the *Lancet* for July 19, 1851. The patient was only five weeks old, and the pin took nearly three weeks to pass through the alimentary canal.

Aberdeen, November 30. I am, &c. WM. FRASER, M.R.C.S.E.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In *Medical Times and Gazette* of Nov. 26 a case is related of a child six months old having swallowed a pin. This case is interesting in two points, namely, the early age of the child, and as giving us an idea of the time a pin will take to traverse the whole course of the alimentary canal.

In the early part of last winter I was sent for in great haste to see a young woman who was said to be choking from the effects of a pin sticking in her throat. I took some tartarised antimony with me, also a variety of instruments, and hastened to the patient. When I arrived I found, as is usual in accidents, things not quite so bad as represented; however, the girl appeared to be suffering a considerable amount of pain, with a sense of choking occasionally. She informed me that the pin "had stuck for some time at the upper part of her throat (the pharynx), but had slipped further down," and was now evidently sticking in the œsophagus at a point about half an inch above the sternum. I gave her an emetic; it was swallowed with difficulty; tickled the back part of the throat. She vomited a little, but no pin came up, and she still complained much of the pain. I prepared a catheter by attaching a great many loops of thread to it, put this down, but caught nothing; in fact, the loops ran together with the moisture of the œsophagus, and were evidently worse than useless. Pain still much complained of, with a kind of choking movement every now and then. I now put down the tube of the stomach-pump, and pushed it right into the stomach, and as I was in the act of bringing it up she seemed about to be suffocated, which caused me to bring the tube out of the mouth with a sweep. A considerable quantity of half-digested dinner had dropped from the stomach-pump-tube on the floor, and in the centre of this mess was the veritable pin, so the girl said; but I have strong doubts myself on this point; one thing is certain, however, that there was no pin visible near this part of the floor shortly before I brought up the tube, as I saw the floor carefully wiped up myself, and the girl declared there was not a single pin about her—a rare thing for a woman to be able to say at any time. Women, however, have sometimes pins about them that they are not aware of; and it is therefore quite possible that the one we say might have been jolted from some hidden corner of the girls dress during the operations, and might have fallen on the floor exactly in the centre of the spot over which the point of the tube was hanging. But if this be the true explanation of the pin on the floor, it was certainly a strange coincidence, and almost as magic like as the tricks of the brothers Davenport. After the operation the patient expressed herself as relieved and free from pain, and could swallow freely. She said she felt merely a slight soreness where the pin had been sticking. This soreness continued for a day or two only, and she has remained quite well up to this time.

In connexion with this subject I may mention that some years before I entered the Profession a fish bone stuck in my own throat, and remained there for seven days. On the seventh day the part became very painful: inflammation had evidently set in. I made a pair of forceps from a piece of tough hickory, retired to a secluded place, and guided by my own feelings commenced groping for the offending object, and after repeated attempts I at last brought up the fish bone, measuring about an inch in length. The fish bone and forceps I still retain.

I am, &c. AN OBSERVER.

COMMUNICATIONS have been received from—

Dr. FOTHERBY; Mr. T. CLIFFORD ALLBUTT; Dr. R. FOWLER; Dr. J. WHITMORE; CELER ET AUDAX; ROYAL MEDICAL AND CHIRURGICAL SOCIETY; Mr. N. STOWERS; MICROSCOPICAL SOCIETY; Mr. W. FRASER; UNIVERSITY OF LONDON; AN OBSERVER; APOTHECARIES' HALL; ETHNOLOGICAL SOCIETY OF LONDON; Mr. E. CHAPLIN; M.A.; AN INVALID; ROYAL INSTITUTION OF GREAT BRITAIN; HARVEIAN SOCIETY OF LONDON; Mr. R. GRIFFIN; AN OLD MEDICAL STUDENT OF THE UNIVERSITY OF CAMBRIDGE; Dr. J. R. ELLIOTT.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 3, 1864.

BIRTHS.

Births of Boys, 1016; Girls, 947; Total, 1963.
Average of 10 corresponding weeks, 1854-63, 1754·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	826	798	1624
Average of the ten years 1854-63	694·9	703·9	1398·8
Average corrected to increased population..	..	..	1538
Deaths of people above 90	..	..	6

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	..	8	15	2	9	6	1
North ..	618,210	2	9	13	2	3	19	5
Central ..	378,058	2	9	23	2	6	13	2
East ..	571,158	1	15	23	1	13	20	3
South ..	773,175	3	15	27	3	10	25	2
Total ..	2,803,989	8	56	101	10	41	83	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·989 in.
Mean temperature	43·4
Highest point of thermometer	54·4
Lowest point of thermometer	30·9
Mean dew-point temperature	39·7
General direction of wind	S.W.
Whole amount of rain in the week	0·28 in.

APPOINTMENTS FOR THE WEEK.

December 10. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

12. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

13. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. Mr. Laing, "On Certain Remains of the Stone Period from Caithness." Professor Huxley, "On the Human Remains Collected by Mr. Laing." Mr. John Evans, F.R.S., "On Some Flint Implements from Salisbury-hill, near Bath."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY (Ballot, 8 p.m.), 8½ p.m. Dr. Pidduck, "On the Causes and Prevention of Infant Mortality." Mr. J. Morgan, "Ulcer of the Ileum, communicating with the Bladder."

14. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

HUNTERIAN SOCIETY, 8 p.m. Dr. S. Ward, "Some Remarks on Pneumonia and its Treatment, with Illustrative Cases."

MICROSCOPICAL SOCIETY, 8 p.m. Discussion "On the most Advantageous Means of Illuminating Objects under the High Powers of the Microscope."

15. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

HARVEIAN SOCIETY OF LONDON, 8 p.m. Mr. Victor de Meric, "On Syphilitic Affections of the Nails."

16. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

CLERICAL, MEDICAL, AND GENERAL

LIFE ASSURANCE SOCIETY,

No. 13, ST. JAMES'S-SQUARE, LONDON, S.W.

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Vice-Presidents.

The ARCHBISHOP of DUBLIN.
The DUKE of MARLBOROUGH.
The EARL of GALLOWAY.
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Assistant Actuary.

BENJAMIN NEWBATT, Esq.

REPORT

READ at the 40th ANNUAL GENERAL MEETING, held on the 25th Nov., 1864.

In reporting the progress of the Society during the year ending June 30th last, the Directors have the satisfaction of submitting the following statement :—

The New Policies effected were in number **466**, and in amount **£271,440**. The Annual Premiums payable thereon are **£8755**. These items are all in excess of those of the previous year.

The Income, after allowing the abatement on such of the Premiums as have been reduced by Bonus, was **£201,850**, of which £140,599 was derived from Premiums, and £61,251 from Interest on Investments.

Claims by death were paid to the amount of £115,873. The substantial benefits that have necessarily accompanied the distribution of this large sum must have been materially enhanced by the seasonable promptitude of payment, it being the practice of the Society to settle claims at the end of thirty days after proof of death.

The surplus Income, after the liquidation of the foregoing and all other demands, was **£80,136**, or about 30 per cent. of the total Receipts ; and the Assurance Fund, after the addition of this sum, amounted to **£1,446,600**, being more than Ten Years' Income from Premiums.

These amounts are both in excess of those of several previous years, and will doubtless be regarded by the Assured with considerable satisfaction ; the former as showing that, at the close of its 40th year, the operations of the Society are conducted with undiminished energy ; the latter, in the testimony it bears to the steady increase of wealth as the period approaches for another quinquennial division.

The NEXT DIVISION of PROFITS will take place in January, 1867, and Persons who effect NEW POLICES BEFORE the END of JUNE NEXT will be entitled at that Division to one year's additional Share of Profits over later Entrants.

Forms of Proposal, and further information, can be obtained of any of the Society's Agents, or of

GEORGE CUTCLIFFE, Actuary and Secretary,
13, *St. James's-square, London, S.W.*

N.B.—A Fee of One Guinea is paid to the Medical Attendants of all Persons proposing to Assure.

ORIGINAL LECTURES.

COURSE OF

LECTURES ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D., F.R.C.P.,
Professor in University College, and Assistant-Physician to University College Hospital.

Lecture IX.

ON THE CLINICAL SIGNIFICANCE AND PATHOLOGICAL IMPORTANCE OF THE PRESENCE IN THE URINE OF INOSITE—CREATIN AND CREATININ—CHOLESTERIN—CYSTIN, (CALCULI)—XANTHIN, (CALCULI)—LEUCIN—AND TYROSIN.

(Continued from page 617.)

Cystin as a Urinary Deposit, and as Calculi—Its Nature and Treatment.

Cystin, which was first discovered in 1805 by Dr. Wollaston in a urinary calculus, enjoys the remarkable peculiarity of consisting of no less than a quarter of its weight of pure sulphur.

Chemistry.

Before exposure to light and air, Cystin is a pale, yellow, opaque, amber-coloured crystalline organic substance, devoid of either smell, taste, or reaction. In 100 parts it is composed of

Carbon	30
Sulphur	27
Oxygen	26
Nitrogen	12
Hydrogen	5
	100

After prolonged exposure to light and air it changes its colour, and becomes of a sea-green hue. It has several peculiar chemical characters, being soluble in ammonia, but insoluble in carbonate of ammonia; soluble in oxalic, but insoluble in acetic and tartaric acids; soluble both in the mineral acids and alkalies, yet insoluble in water and alcohol. Moreover, cystin combines with the mineral acids to form salts, whereas the alkalies merely dissolve it.

From its acid solutions it is precipitated by the carbonate of ammonia, and from its alkaline solutions by acetic acid. When boiled with caustic potash, it yields ammonia and an inflammable gas.

When strongly heated in the open air it does not fuse, but burns with a bluish-green flame, and gives off an acid vapour with a disagreeable odour. Whereas, when heated in a close vessel (dry distillation), it chars, yields a fetid oil, and gives off the alkaline vapours of ammonia.

Cystin is readily detected in the urine in consequence of its possessing well-defined crystalline characters. Under the microscope the crystals are seen either to be perfect hexagons or some modification of the hexagon (Fig. 18, *a*). They are thin plates, and often lie one over the other (*c*). So characteristic is their appearance that it is almost impossible to confound them with any other urinary deposit, unless it might perhaps be with uric acid, which, on some rare occasions, crystallises in hexagonal-looking plates. The cystin crystals are, however, much smaller than those of uric acid, and even when there is a doubt about the nature of the deposit the addition of a few drops of a mineral acid soon settles the question, as the crystals of uric acid remain unaffected, while those of cystin are speedily dissolved, again to reappear on the neutralisation of the acid by the carbonate of ammonia.

Fig. 18.

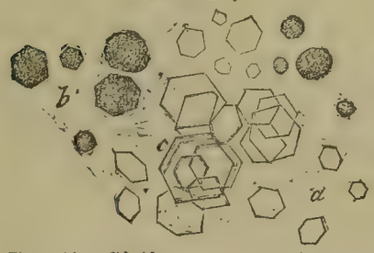


Fig. 18.—Cystin. *a* represents crystals spontaneously formed in human urine; *b*, deposited after the addition of acetic acid; *c*, crystals obtained by dissolving a portion of a calculus in ammonia and evaporating to dryness.

It must be borne in mind that crystals are not always to be detected in urine containing cystin. For there are many cases in which the urine is alkaline, or, at least, neutral, where no deposit is to be detected until after the addition of acetic acid. The cystin is then thrown down either as an amorphous precipitate or in the shape of imperfectly formed crystals (Fig. 18, *b*). The latter are occasionally not unlike balls of tyrosin, appearing in some cases to consist of badly formed rosettes of small crystals.

Should a case arise where the deposit, caused by acetic acid, is likely to be confounded with urates, strong nitric acid ought to be added, which will at once dissolve the cystin, and leave the other intact. If still further proof of the true nature of the deposit be required, collect, dry, and redissolve it in ammonia, and on the slow evaporation of the ammonia the cystin will assume the hexagonal form of crystallisation.

Urine containing a larger quantity of cystin has in general a pale greenish yellow hue, and a sweet briar-like odour. The cause of the odour I am at some loss to comprehend, seeing that pure cystin is perfectly odourless. When stale, cystin urine smells like rotten eggs, in consequence of its sulphur being transformed into sulphuretted hydrogen.

In testing calculi for cystin, place a portion of the stone on platinum foil and burn it. The following characters will denote the presence of cystin:—1st, the sickening acid smell; 2nd, the bluish green flame; and, 3rd (what I consider a very characteristic test), the polished platinum soon becomes stained of a deep greenish blue colour, which colour entirely disappears on further heating.

If the stone be impure the quantity of cystin it contains can be readily ascertained by dissolving a given amount in ammonia, filtering and weighing the cystin left after the evaporation of the liquid.

Physiology.

The origin of cystin in the animal body is as yet entirely unknown, but there are grounds for supposing that it is in some way or other connected with the function of the liver. The first of these is that the only substance of a crystalline nature met with in the healthy body containing sulphur is taurin, one of the normal products of the bile. The second, that in certain diseased states of the system crystals of cystin are met with in the liver (Scherer, Cloetta, Virchow, and myself).

At one time cystin was, like many of the other urinary ingredients, supposed to be formed in the kidneys, but the fact of its being occasionally met with in the liver completely negatives that view. Indeed, all recent research tends to prove that the kidneys are in no case formative organs, and that their function is purely excretive.

It is worthy of observation that taurin, the substance supposed to yield cystin, contains an almost equal per centage of sulphur, namely, 25 per cent. As the physiology of cystin deposits is still shrouded in obscurity, and the very existence of it in the healthy animal body is denied, we may at once pass on to its

Pathology.

Notwithstanding that cystin is never to be met with in the healthy animal organism, its presence in disease is by no means so rare as one might at first sight imagine. Indeed, it is highly probable that it is often present in the urine without being detected, even in cases where the secretion has been microscopically examined. I have two reasons for saying so; first, cystin is often retained in solution until it is artificially precipitated by means of acetic acid; and secondly, the cystin diathesis has in most cases remained undiscovered not only until a stone has formed, but even until the nature of the calculus has been revealed by chemical analysis.

Although the presence of cystin in the urine must be regarded as abnormal, yet it cannot be looked upon as an indication of the existence of any grave disease, for until it accumulates in the kidney or bladder and gives rise to the discomforts of a stone, the persons labouring under it do not appear to be in worse health than the majority of their neighbours. An old fellow student of my own has to my personal knowledge had cystin deposit in his urine for at least fifteen or sixteen years, and not until very recently did it cause him any discomfort (see the postscript).

The cystin diathesis has one striking peculiarity, namely, that it is seldom preceded, associated with, or followed by any other. Indeed, persons labouring under it seem to enjoy a remarkable immunity from other urinary deposits. Look, for example, at these three fine specimens of cystin calculi;

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—Ed. *Med. Times and Gaz.*

how different they are from many of the stones we have already examined. They have neither nuclei of uric acid, nor coatings of phosphates. From beginning to end they are uniform in structure, and these are no exceptions to the general rule, for although I have examined twelve of this species of calculus, not one of them had either a nucleus or a covering of any other kind of urinary sediment, and only in very few of them was the cystin, as in one of the specimens before us, mixed with an impurity. Even in glancing over the literature of the subject I have succeeded in finding only two cases in which the calculus was of a complex character. The first is one in which a cystin stone had a uric acid covering (recorded by Henry), and the second is one in which a cystin stone had a uric acid nucleus (mentioned by Yelloly).

The only urinary deposit which appears to have a tendency to mix itself up with cystin is that of phosphates, and it seems to me highly probable that this is not in any way due to the patient having a phosphatic diathesis, but merely to the accidental circumstance of cystin urine frequently having an alkaline reaction. Phosphates being, as is well known, insoluble in alkaline urine, we have at once a good chemical reason for their occasionally becoming mixed up with cystin deposits. A precisely similar remark is equally applicable to the sparingly soluble carbonates and oxalates of the alkaline earths.

The cystin is easily separable from the phosphatic deposit by treating the mixture with strong acetic acid, which, while it dissolves the phosphates, only renders the cystin more insoluble.

If the word diathesis is applicable to anything at all, it seems specially appropriate to those cases in which a cystin deposit is habitually met with in the human urine; for if we examine into the history of the recorded cases, we find it impossible to arrive at any other conclusion than that the cystin deposit depends upon a peculiar congenital or acquired state of body, quite independent of any special disease or known constitutional peculiarity.

The majority of writers, I am aware, speak of it as being hereditary, in consequence of it having several times been found to occur in more than one member of the same family. Civiale, for example, met with it in two brothers; Toel in two sisters; and Golding Bird in no less than three succeeding generations. Notwithstanding this, however, I am disinclined to adopt the hereditary theory; for on looking through the numerous recorded cases of cystin calculi, it will be found that in very many instances special mention is made that the patient was the only member of his family known to be so afflicted.

On the other hand again, cystin deposits cannot be said to depend on national peculiarities, for England, Scotland, France, Ireland, and Germany have all furnished their quota. Neither can we localise them in any particular part of the country; nor can we attribute them to any special kind of drink; for cystin calculi are alike to be met with in cider-drinking Herefordshire, beer-consuming Yorkshire, and whisky-imbibing Mid Lothian. Some think that fish and vegetable diet have a great effect in producing them; but they have utterly failed to prove that either the pisciverous Shetlander, or the modern vegetarian are more liable to cystin calculi than persons who indulge in a less restricted form of diet.

Golding Bird hazarded the idea that scrofulous persons were more liable to the cystin diathesis than others—a doctrine which appears to me as untenable as that which attributes it to the chlorotic habit of body. A glance at the thousands of persons surrounding us who suffer from the one or other of these conditions, and in whose urine no cystin deposit has ever been detected, is sufficient of itself to negative either of these views.

Fig. 19.

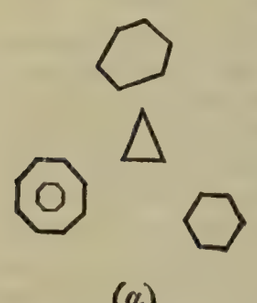


Fig. 19.—Crystals of cystin from a diseased human liver.

The cystin diathesis, be it what it may, is certainly something apart from any other condition of body with which we are familiar, and, as said before, the most tenable doctrine appears to be that it is in some way or other connected with the interrupted metamorphosis of some of the hepatic products, as they alone possess the required amount of sulphur, and in the urine only do crystals of cystin appear as a common deposit. The accompanying figure (19) represents some crystals of cystin which I detected in the liver in a fatal case of jaundice. (b)

It would seem, too, that the habit of body in which it originates is more likely to be congenital than acquired, for among the cases recorded the majority bear evidence that the cystin deposit began at a very early age, and not one is to be found in which it was met with after the prime of life.

It may be well here to remark that in some cases the deposition of cystin in the urine is irregularly intermittent. In the case of a patient recovering from a severe attack of pneumonia, who was under my care in 1850, while Resident Physician in the Royal Infirmary, Edinburgh, the urine contained well-formed crystals of cystin every second or third day. A connexion between the diet and the deposit in this case was sought to be discovered, but with an entirely negative result, except on one point, which appeared to be pretty satisfactorily established—namely, that as the disease of the lungs disappeared, and the appetite of the patient improved, the amount of cystin in the urine gradually increased.

As regards treatment, it is much to be regretted that no rules can as yet be given which have satisfactorily stood the test of experience; but grounding our views on a knowlege of the chemical composition and reactions of cystin, I would venture to advise the adoption of the following line of treatment:—

1st. As to diet, all foods rich in sulphur ought to be avoided. Eggs, peas, beans, and cabbage would of course come under this head. Protein substances—albumen and fibrin, for example—which also contain sulphur, should be taken in moderation; whereas, the numerous articles of diet belonging to the starchy, saccharine, and oleaginous groups may be indulged in with impunity. For similar reasons all drinks containing sulphates ought to be shunned. This rule will, therefore, necessitate the discontinuance of the use of the majority of mineral waters, especially the purgative ones, which are in general rich in sulphates. Pickles ought also to be refrained from in consequence of the acetic acid they contain; cystin being insoluble in that acid.

2nd. With respect to remedies, for the reason just given, sulphate of magnesia is, of course, not to be employed as a purgative, and if a mineral acid is to be administered, one would naturally refrain from selecting sulphuric for that purpose; as both of these remedies would only add fuel to the fire. Then, again, as cystin is insoluble in acetic and tartaric acids, if our patient is threatened with a stone we would prevent him indulging in substances likely to contain either the one or other of these acids, which even although converted into carbonic acid would still be objectionable; while we would at the same time avoid prescribing for him either citrates, acetates, or tartrates. For similar reasons an embargo should be put upon the carbonate of ammonia, and even ammonia in any form, as it is speedily transformed into the carbonate in the circulation.

The other alkalies had also better be avoided, not because cystin is insoluble in them, but because the urine in persons affected with the cystin diathesis has a tendency to alkalinity; and in alkaline urine there is always a danger of a deposition of phosphates, oxalates, or carbonates taking place.

Ferruginous tonics have been greatly recommended in the cases we are now considering; and no doubt whatever tends to restore the healthy tone to the system is likely to do good. If, however, there be one form of remedy more likely to benefit than another, it appears to me that it is that of the mineral acids, nitric and hydrochloric (not sulphuric), as they will not only help to retain the cystin in solution, but directly aid in correcting the tendency to alkalinity in the blood and urine. These mineral acids can, of course, easily be combined with vegetable tonics, and, if need be, with several ferruginous ones.

Some, not yet emancipated from the fetters of the so-called "practical" delusion, may be tempted to exclaim against this as being chemical therapeutics; but to such I reply, that I am proud to say that it is chemical therapeutics; and that if chemical therapeutics are worth anything, they are most assuredly so in the treatment of diseases of the urinary organs. All the blundering empiricism of past times might have in great part been avoided, had our predecessors only known a little more of the chemistry of the body and its secretions.

A few years ago scientific farming was looked upon as a wild illusion, and the so-called "practical" wiseacres shook their wise heads when Liebig, in propounding to them the

(b) A complete history of this case will be found in the author's work on "Jaundice and Diseases of the Liver and Pancreas," p. 86.

self-evident doctrine that out of nothing, nothing can be made, pointed out that, in order to procure crops, the inorganic and organic substances comprising them must be furnished by the soil, supplied in the water, or yielded from the atmosphere. Until then the seed, in the eyes of the farmer, was beyond the pale of any natural law, and growth was by him regarded as a mysterious process by which the plant, under the influence of heat, light, and moisture, manufactured all that it required out of an unknown something, about the nature of which few apparently sought to inquire. Now, however, the light of knowledge is gradually dawning upon the agriculturist, and he begins to discover that plants, although able to build up, transform, arrange, and modify, can neither create nor destroy a single atom of the elements of which they are made; and although he still pretends to scorn Liebig and his doctrines, he cannot help perceiving that the fertility of his fields increases and decreases, other things being equal, in a direct ratio to the amount of food they contain suitable to each particular crop. Nay, more, he even begins to try and restore to the exhausted soil, by means of artificial manures, those substances of which he supposes it has become deficient. His ignorance is still, however, such that, as soon as he fails in his endeavour to restore fertility by artificial products, he lays the blame at the door of chemistry, and entirely overlooks the fact that it arose from his own error in not adding the proper ingredient in the proper place; for should his fields have become exhausted of phosphates, and he manures them with ammonia, which they already possess in superabundance, is it surprising that he obtains a stunted crop of a vegetable whose tissues require more phosphatic than ammoniacal salts? Every one, of course, exclaims no; but why, then, I ask, do we not apply the same mode of reasoning and the same remark to our own failures in medicine? In what respect do we differ from the agriculturist? His object is to obtain good crops, and so is ours; the only difference being that while he looks for corn and wheat, we seek to obtain muscular strength and mental vigour, and the animal body can no more generate these out of nothing, than the vegetable can fruit and flowers.

Just as there is a fundamental law in physics, that no matter can exist without force, and no force can be generated without matter; so, too, in physiology, there is a fundamental law, that no change can take place in the material of which the animal body is composed without giving rise to vital phenomena, and no vital phenomena can take place without a corresponding change in the material. And as the animal body, like the vegetable, can neither create nor destroy a single element—in order that it may produce muscular strength and mental power, a constant supply of the proper material must be furnished to it; and, in cases where the food is deficient in the required amount of material, we must add it in the shape of medicine.

In giving medicine, we but supply directly or indirectly to the different tissues of the frame the materials of which they have become exhausted, or hasten the removal of those which are in excess or have become effete;—and the sooner practical men become alive to the truth of this all-important doctrine, the better it will be both for themselves and their patients. I am perfectly aware that this "material" view of therapeutics, like Liebig's views of agriculture, will be scouted at for a season; but, being thoroughly convinced of the stability of the foundation upon which it is based, I have no fear of the ultimate result, and am perfectly content to bide my time.

Let us look for a moment at the question of cystin. No one can deny that it contains a large quantity of sulphur, and I think all will admit that as sulphur is an "element," it cannot be manufactured in the body; for although the animal organism can form innumerable compounds out of the fourteen elements of which it is composed, it cannot create the smallest particle of one of the fourteen elements themselves. The sulphur contained in the eliminated cystin therefore, being obtained by the body from without, it is clear that by stopping the supply of this element we could at once arrest the formation of cystin. As sulphur is one of those substances, however which performs a multitude of important offices in the animal body, it would never do entirely to stop its supply. The next best thing, therefore, is to diminish it to the minimum which the wants of the system demand, and to try and remove by other means the abnormal tendency the body has of combining it with O. H. and N. in the form of an abnormal compound.

The line of treatment which has been above suggested is that which at present appears to be the best, but I do not for a moment pretend to say that it is absolutely so, or that it will not require considerable modification according to the circumstances and constitutional peculiarity of the patient. The difficulties in the application of chemical therapeutics are neither less nor more than those which stand in the way of empirical therapeutics; for in either case, if we even take for granted that our diagnosis is perfectly correct, and that the remedy selected is the most suitable contained in the Pharmacopœia, we can never foretell what extraneous influences may be brought to bear upon the body and modify or even counteract its effects. This much, however, may be said, that as no two cases are ever precisely alike, and no two sets of conditions invariably the same, there is far less likelihood of error in rational than in empirical medicine, for while the former combines the teachings of science with those of empiricism, the latter contents itself with the information obtained from empiricism alone.

The chief obstacle to the spread of rational, or as they are often called, chemical therapeutics, lies in the imperfect knowledge of physiology and chemistry possessed by practical men. For the limited acquaintance they have with these studies prevents their appreciating the true value of scientific information sufficiently to deter them from attempting to apply it in practice ere they have thoroughly mastered the subject. The natural result consequently is that they almost invariably fail in their endeavours to combine science with empiricism, but instead of attributing their failure to a deficiency of knowledge, put the entire blame upon what they please to term the false teachings of science. It is to be hoped, however, that through the agency of physiological laboratories, such as have been already established in France and in Germany, at this (University) College and at Netley, the succeeding generations of Medical men will be enabled more successfully to apply these same teachings of science to the alleviation of suffering, and thereby raise our Profession to the high position it is evidently destined at no very distant period to occupy.

As regards cystin calculi, some special remarks are necessary. They are by no means always vesicle; for Marcet, senior, mentions no less than three cases in which they were met with in the kidneys; and Berzelius, Brande, and Bence Jones have each added one to this number. The occurrence of renal cystin calculi of course proves that, under certain conditions of the system, the state of the urine is such, even at the moment of its secretion, as to prevent it retaining the cystin in solution,—a fact of considerable clinical importance; and it would be exceedingly useful to ascertain if, in cases of renal cystin calculi, the urine is alkaline; for if so, the necessity of the acid line of treatment would be made more apparent.

Cystin calculi may form at any period of life, from birth onwards to middle age. Wollaston's celebrated calculus was removed from the urethra of an infant, and Müller has described one taken from the bladder of a boy six years of age. The majority appear to have been met with between the twentieth and thirtieth year, although their formation seems to have begun much earlier.

It has already been mentioned that cystin calculi are seldom of a complex character, and it may now be added that they are even very rarely of a mixed nature. Here is one (No. 2457, Univ. Coll. Museum) which well illustrates how beautifully pure they may sometimes be. Scrapings from this stone almost entirely dissolve in ammonia, and on the evaporation of the liquid fine hexagonal plates of cystin cover the bottom and sides of the vessel. When analysing this specimen a few years ago, I had occasion to incinerate a portion, and it was so pure as to be entirely dissipated by heat. No inorganic ash remained behind. This half of the stone in its present state weighs 265 grains, so that the entire specimen, before it was cut and polished, must have weighed considerably more than 530 grains.

The effect of light on cystin is well shown in this specimen. All the exposed parts are of a fine sea-green colour, while that in contact with the cotton wool is of a brownish-yellow amber hue. Moreover, the polished section further shows the confusedly crystalline-looking structure presented by pure cystin, which is of itself a sign of its purity. The outside of the stone is rough, tuberculated, and glistening from the peculiar arrangement of the crystals. In shape the stone is a flattened oval, the surface of the section being $2\frac{1}{8}$ by $1\frac{1}{4}$ inches in diameter. The only history connected with the specimen is that it was successfully removed by Mr. Liston from the bladder of a Scotchman, aged 37, none of whose relations were known to have suffered from stone.

This other specimen (No. 3620) is one of equal interest, but

in another way. It consists, as is seen, of a number of fragments, amounting in all to above half-an-ounce in weight, which were passed by the urethra after the calculus was crushed by Mr. Liston. The patient was a young man, 19 years of age, a native of Herefordshire, and the symptoms of stone had existed for many years before he came to University College Hospital. The operation of crushing was repeated four times before all the fragments came away. Amongst them is a small oval calculus of the same material, with a fine crystalline exterior. It was passed along with the fragments. It has more of an amber yellow than of a green colour, which Dr. Prout, who examined the specimens, considered might be due to it containing some more of the water of crystallisation than the larger stone; but it appears to me to be chiefly due to its being kept covered up in paper, while the others are exposed to the light. No hereditary taint could be made out in this case, and no other member of the family was known to have suffered from stone of any kind.

This third specimen of cystin calculi (No. 2621, Univ. Col. Museum) is also exceedingly interesting, notwithstanding that nothing is known of the history of the patient from whom it was removed. The stone, however, tells part of its own clinical history, and a most instructive part, as we shall immediately see.

In the first place, the section of this stone is not of the same colour as that of the other specimens: it is of a much paler green, looking more like tailors' chalk than anything else. Besides this it has not the confusedly crystalline appearance, nor the transparency so characteristic of pure cystin. Whereas, it possesses, on the other hand, a distinctly, though slightly, striated arrangement, which I consider of itself an indication of impurity. In this case the impurity consists of an admixture of phosphates, and these are so uniformly blended with the cystin that I am led to the belief that the presence of phosphate of lime in this instance is not due to the patient having had a phosphatic as well as a cystin diathesis, but solely to the accidental circumstance of his urine having been alkaline, which would, of course, of itself fully account for the phosphatic admixture. The stone in its present dilapidated condition weighs nearly 850 grains, and is two and a-quarter inches in its greatest diameter.(c)

It was previously said that many patients labouring under the cystin diathesis do not appear to enjoy less health than their neighbours until they begin to suffer from symptoms of stone. It may now be added, that cystin calculi do not appear to give rise to so much discomfort as many other kinds of stone. But whether or not this arises from the general health of the patients being better I am not in a position to say, the statement being merely based on the two following facts —

1stly. Most cystin calculi are of considerable size before the patient applies for relief; and

2ndly. There is an almost invariable absence of any phosphatic covering on cystin calculi which proves that they do not give rise to the same amount of vesical irritation as other forms of stone, the majority of which, when of any size, have a coating of phosphates.

Postscript.

November 12, 1864.—As it is not every day one has the opportunity of hearing a Medical man's view of his own case when it happens to be one of the cystin diathesis, some of our readers may feel interested to learn what my old fellow-student, whose case I already alluded to, thinks of the matter. The following are a few passages from a letter I received from him a day or two ago in reply to some questions of mine regarding his present state. He begins his letter by saying:—

"I am still bothered with the cystin, as you will readily understand when I tell you that Syme(d) crushed a calculus for me about four months ago, and removed another between two and three months since by the median operation." The first of these calculi must have been a long time in forming, as the gentleman has, for at least fifteen or sixteen years, been aware of his constitutional tendency to cystin deposit.

As regards food and drink, he makes the following interesting remarks:—"The only change I had made in my diet during the last two or three years was to take more wine than I ever did before. I generally took about three glasses of dry sherry at dinner; and although it helped me to do more work, I am sure I was on the whole the worse for it." . . . "Wine, beef, and mutton seem to increase the deposit; so that I have recently given up the use of all stimulants, and not tasted beef or mutton above two or three times during the last three months. Fish and vegetables I do not consider do me any harm; but the only vegetable I take is potato, and that, too, but once a-day. Fish, on the other hand, I take every morning to breakfast, and at dinner I usually limit myself to fowl, game, or veal." The great point, he adds, is not to eat more than the wants of the body really demand. Both overwork and mental worry he finds increase the cystin deposit in the urine.

(To be continued.)

(c) Dr. B. Jones published an account of the analysis of this calculus in the 23rd vol. of the Med.-Chir. Society's *Transactions*.

(d) Professor Syme, of Edinburgh.

ORIGINAL COMMUNICATIONS.

TREATMENT OF CONGENITAL CLEFT PALATE.

By Dr. N. W. KINGSLEY, New York.

Having for some years been much interested in cases of fissured palate, and having made the treatment of congenital cleft somewhat of a specialty in America, I propose to discuss briefly the question of the best method of treating such cases, and, while my observations have been confined entirely to the other side of the Atlantic, it is possible I may present no new or original thoughts. If the remarks I make on this subject shall, therefore, seem to conflict with the opinions of the best-informed professional men in this country, they are, nevertheless, the now generally-received opinions in my own country, and I must still believe that the principles which lie at the foundation of all proper treatment remain the same with all nationalities. The attention of Surgeons and Dentists has been called much more to this deformity within the last few years than formerly, and, as the cases presented grew more manageable with increasing skill, the interest in them and the number of cases also seemingly increased. Whether there be an increase proportionately, or whether the apparent increase is the result of greater attention given to the subject, the writer has no statistics or other means of knowing.

The primal cause of this deformity thus far remains unknown and beyond our control: no research has unfolded it; all we know is there is an amount of development in the earlier months of fœtal life. It does not seem to any extent to be entailed or transmitted to offspring. In but few instances which have been brought to my knowledge has there been any evidence that the defective organization was inherited. In some instances it has appeared in several children of the same parents, but in a large majority of cases they are the solitary instances in the family. Neither is there any uniformity in its extent. If we take the uvula as the starting-point, we sometimes find merely a bifurcation of that organ, and from this very slight defect it is presented with every gradation of extent, into the velum, to the posterior edge of the palatine bones, to the base of the alveolar ridge, and sometimes dividing the maxillæ along the line of either or both the nasal passages.

The only evils arising from this deformity worthy of our attention are its influence on deglutition and articulation. These functions being unlike each other in the fact that the former is natural, while the latter is an acquired or a mechanical function, it will readily be seen that the loss of any of the organs concerned may influence the two in a very different manner. A person suffering from a congenital defect of an organ concerned in a natural function may by repeated efforts acquire such control over the remaining organs as to experience no real discomfort from their defect. So with a child born with a defective velum or palate, it must of necessity find the function of deglutition during all the earlier periods of its life, and especially while it is dependent upon fluids for nourishment, much impaired. To such an extent have these poor unfortunates suffered from this deformity, that there is no doubt many lives have been sacrificed solely from want of nourishment. But, when the deformity is discovered by the nurse, and accommodation made to meet the child's condition, it is very soon able to obtain all the food necessary to its development, and long before it has attained years of discretion, it has obtained such control over the remaining organs of deglutition as never to experience any great discomfort from the defect. I have never conversed with an intelligent patient who was troubled with a regurgitation of food, either fluid or solid, unless the head was inclined considerably forward. In fact, the physical comfort of an adult patient with congenital fissure of the palate is in no way seriously impaired.

But in regard to the mechanical function, that of making articulate sounds, it is quite another thing. The perfection of speech being dependent entirely upon the intelligent use of perfect organs of speech, it follows, as a necessary consequence, that no amount of repeated effort or practice can make up for the absence of organs essential to that acquirement. It follows also that nothing can produce this result short of restoring to a certain degree of perfection the defective organs. We can, therefore, come to no other conclusion than that the only demand for any method of treatment is with a view of improving the speech.

It is necessary, before proceeding farther with this subject, that we understand pretty fully the mechanical action of the organs concerned in articulation, and particularly the offices of the velum. Also, for the purposes of this discussion, I desire to draw a marked distinction between voice and speech. The terms are often confounded, even by learned men, when treating of this subject, in a manner which seems to me unwarrantable. The term voice is in common use, when speech is undoubtedly meant, and to such an extent, that in reading the works of authors on this subject, it is sometimes difficult to know whether it is simply an improvement of voice they refer to, or whether the term is meant to include articulation. By this explanation only can I reconcile some apparent impossibilities.

For the present, therefore, let us consider the term voice as applying to all the elementary sounds of language formed in the larynx, and speech as applying to the modulations of such sounds by the organs situated between the pharynx and the lips inclusive. The voice is not affected by a fissured velum. It does not seriously interfere with vocalization. With an ear for music, a person afflicted with this deformity may be educated to the production of all the harmonious sounds of vocal music. Singing is not then necessarily peculiar, but all those elementary sounds of articulate language which are modified to a greater or less degree by the velum, are more or less defective, dependant to some extent upon the size of the fissure. It is the modifications of the voice by the organs before alluded to which come to be understood in process of time as speech.

Articulate language, therefore, to be clear, distinct, and uniform must be the result of the intelligent use of comparatively perfect organs.

The improper use of, or the absence of, perfect organs can only result in defective articulation. I am surprised that this matter should have been overlooked in many instances by professed elocutionists.

I have known professors of elocution receive as pupils persons suffering from defective organs of speech with the encouragement of perfect articulation held out as the result of education. It is physically impossible for such a result to follow under such circumstances. So far as I have read, it seems to me too little credit has been given to the velum by physiologists as an organ of speech. I would therefore claim for it that it exercises a more important office in the modulation of sound than any other organ except the tongue. By it, in conjunction with the pharynx, the voice is directed entirely through the oral cavity. By it, in conjunction with the tongue, the voice may be directed entirely through the nasal cavity; and by it the voice may be divided and directed through both channels. On it depend the tongue, teeth, lips, and other organs of speech of the oral cavity for their current of voice out of which to make articulate language. It is essential to the purity of any spoken language with which the writer is acquainted that, to produce certain sounds, the passage from the pharynx to the posterior nares should at times be entirely closed, while for other sounds it should be entirely open, permitting the whole voice to pass in that direction; and in this connection let me not be understood as confounding the uvula with the velum. So far as my observations extend, the uvula exercises no control over the voice, and so far as any injury to articulation might follow, the uvula may be entirely removed, providing the velum and the pharynx have the power of closing the posterior nares. With congenital fissure of the palate it is therefore physically impossible for a person to speak the same language as those with perfect organs, and in this way only in many cases is the deformity betrayed to the society in which the person moves.

It becomes us, therefore, not only as a matter of Professional pride, but on the far higher and more noble grounds of philanthropy and sympathy with a class of unfortunates, in many cases as intelligent, as refined, and as sensitive as their more fortunate neighbours, though deprived by nature of one of the most delightful acquirements of man—it becomes us to use every means in our power, not to perform brilliant operations merely, but to accept and use all such means, and such only, as shall give hope of their restoration to society.

It is not uncommonly the case that a practice is continued because it has grown venerable with age, and will not yield to a better method through jealousy or pride. The patient must then suffer primarily, and the honour of the Profession in the end. In the treatment of fissured palate, the operation of Staphyloraphy has long held its rank as the treatment, *par excellence*, for this deformity; and although during all the earlier years of its history it was accompanied with varying success, it has, nevertheless, been called in practice so often that, in a Surgical sense, little else can be desired or hoped for. Thanks to such men as Warren, Fergusson, Pollock, and others, who, by their consummate skill, have carried this operation to such a state of perfection that they have proved all that can ever be claimed for it. Whatever may be the future of Staphyloraphy, their operations will prove a brilliant page in the history of Surgery. That this should seem at first the most desirable treatment for fissured palate all must admit.

What more natural than the suggestion to pare the edges of the cleft and unite them by suture, and thus form a perfect septum in place of an impaired one? Thanks to the gentlemen before alluded to, their skill has proved in this country what cannot be said of my own; they obtain a union more or less complete in nearly every case. I have dwelt at some length in the beginning of this paper on the only object of any treatment of congenital cleft palate being with a view of improving articulation. How will Staphyloraphy stand the test? Has it, as a rule, enabled the patient to conceal the evidence of the deformity from society? Or, in other words, has it proved in any number of cases that it can be relied upon to enable a patient to articulate so clearly and distinctly as not to continually betray the defect? That it does improve articulation in many cases somewhat, and, perhaps, all more or less, all candid minds must admit, from the abundant statements to that effect. But if there is no serious difficulty experienced from a fissured palate in deglutition, and the only discomfort worthy of notice is the mortification arising from unintelligible or defective articulation, how far does limited improvement in speech answer the end desired and hoped for, and how far does it justify a tedious and painful operation so long as the deformity is still patent to all? In this connection let me quote from the highest living authority. "The grand practical object of this operation is to improve the voice and articulation. Defective deglutition from this malformation is what attracts the mother's or nurse's attention in early life. The cries of infancy are in nowise peculiar in tone; but when definite articulation commences, or rather should commence, the value of an entire palate is then appreciated. The air and sound in passing outward from the larynx escape in part through the nostrils by the split in the palate. A nasal twang is the result, and articulation as in the normal state is impossible. Immediately after the operation the modification on the voice can be at once detected. Improved articulation, however, comes slowly. Years, many years, are required for distinct articulatiion; and after the most successful operation for cleft palate, months and years are required to alter defective sounds. Voice and speech have to be modified anew. With some the changes come slowly and sluggishly; but with others they are so rapid and perfect that within a few years the original defect cannot be detected, except by a practised ear."(a) Out of the large number of Surgical successes in this country, is it a rule that the patient is recompensed for the suffering undergone by the result obtained? I must confess I have no data from which to answer these inquiries, but I can speak knowingly of results in the American States, and while I have seen many cases where there was a good union throughout the entire length of the former fissure, I have never seen one where the speech was not defective, nor where the friends considered that it was very materially improved. And the opinions now entertained in France may be said to perfectly coincide with those held in my own country.

From a recent review of an article furnished by Mr. Pollock on Staphyloraphy for "Holmes' System of Surgery," I make the following extract:—

"It is, we believe, a fact that the success which French Surgeons have met with in this operation is so indifferent that it is practically abandoned in the French Hospitals, notwith-

(a) Mr. Fergusson, F.R.C.S., F.R.S. June, 1864.

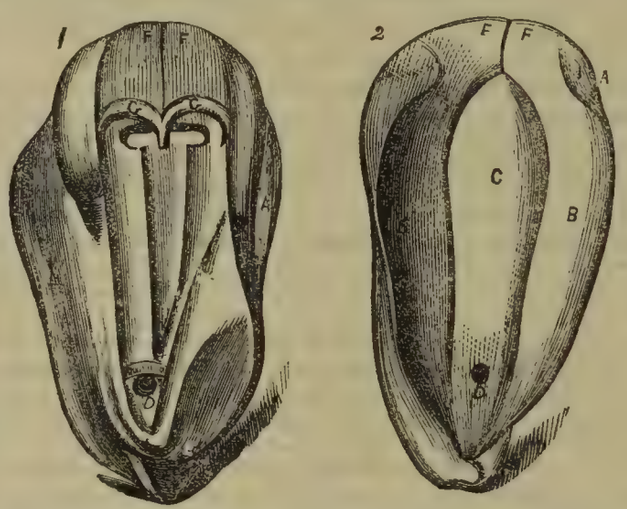
standing the early trials by which Roux connected his illustrious reputation with Staphyloraphy. The French Surgeons now entertain the idea that, on the whole, the defect is best left to mechanicians. . . . . But it is a very doubtful question whether Surgery is exalted by thus surrendering its triumphs, and calling in the aid of a mechanist to supply defects which may be remedied by their Surgical obliteration. Surgeons undertaking Staphyloraphy should, however, always bear in mind one circumstance connected with the result of the operation. The most complete success in restoring the palate by union of the cleft by no means implies restoration of the articulation to a natural or intelligible standard. Long after, or even for ever after, the success of the operation, in a Surgical sense, the patient may continue to speak in a manner hardly less unintelligible and disagreeable than before. The use of the new palate can only be acquired by careful and intelligent practice in the mechanism of articulation. Much perseverance and careful tuition are constantly necessary to attain this end."

I can readily conceive, however, of rare presentations, where, with abundance of material, a long uvula and a good union, without much injury to the muscles, clear and distinct articulation ought to follow, but in a large majority of cases I think I am justified in saying that such a result is impossible. My reasons for so sweeping an assertion are as follows:—The newly-formed septum is too short at the boundary of the fauces and generally somewhat more depressed than it would have been if it had united during its formation, thus contracting the passage between the tongue and the velum; the power of the levator muscle has been much weakened by the knife, the newly-formed septum is either taut or paralyzed, and from this combination of causes the passage to the nares remains permanently open, thus permitting a large volume of voice to escape without the power of the tongue to exercise any control over, or modify it. The ability to articulate any spoken language correctly must remain an impossibility so long as the velum and pharynx are unable to meet and at will shut off that passage. I apprehend that on this point alone rest all the failures of whatever treatment; for the difficulties to be overcome at any other point are comparatively slight. If Staphyloraphy, then, comes so far short of accomplishing, in a majority of cases, all that is desired, we are very naturally led to inquire, Is there any hope from any other source? Obturators have for a long time been resorted to for this object; and when we consider that probably the earlier applications of this instrument were for perforations of the palate induced by accident or disease, and that their good offices were made apparent immediately, it is not to be wondered at that much was expected by their use in congenital cases, and especially so when the true principle upon which an instrument should be adapted was so little understood. It is hard to reconcile the statements which have passed into history of the perfect results obtained by their use in congenital fissure. An obturator properly adapted as a bridge to span a simple perforation of the hard palate from whatever cause induced, will accomplish all that any treatment can; but there its mission virtually ends. To claim that with a fissured velum the gap can be bridged over, or the posterior nares plugged, and perfect articulation follow, is to claim an absurdity, a total impossibility. A great deal of ingenuity has been wasted in their construction; and the claims for them must have been made in advance without waiting for the proof. In the present state of science and art, our only remaining hope of relief is the substitution of an elastic artificial appliance to fill up the gap. This simple idea is not a new one, neither is the application of it of recent date. Elastic artificial vela have been made, or attempted to be made, of some form or other almost ever since the use of india-rubber for mechanical purposes; and I do not know but of other materials long before. One thing, however, is certain: the application of suitable elastic material in skilful hands, for the treatment of these cases, is capable of producing far more satisfactory results than has heretofore been derived from any other source. The indications to be fulfilled by such an appliance are an obturator, or covering for the cleft, which shall be perfectly adapted to the muscles against which it is to lie, shall be flexible—susceptible of all the motions of the velum, or soft palate itself; shall be durable, easily detached and replaced by the patient; and, in a word, shall be so under the control of the surrounding muscles when *in situ*, that the patient has the power, which in a normal state he would possess, of directing the voice at will either through the mouth or the nasal cavity, or both, as desired.

Such an instrument as that described has been brought to such a state of perfection that I have no hesitation in saying that it can be adapted to any case of congenital fissure of the velum that is usually seen, whether complicated with a fissure of the maxillæ or not. It can be made so as to be retained *in situ*, without danger or misplacement; can be worn all the time from the first hour without discomfort; is capable of being raised and depressed, and contracted upon itself by the muscles embracing it, and is so simple that a child cannot disarrange it to its detriment. Such an appliance renders it perfectly possible for the patient to learn to speak well.

The physical and mechanical difficulties to be overcome in the adaptation of this artificial velum are a serious obstacle to the operator, for on a nice adjustment of the instrument to all the parts surrounding the fissure depends entirely the comfort with which the patient wears it, and the consequent use they will make of it.

The movements produced by the superior constrictor muscle of the pharynx upon the remnant of the velum in the act of deglutition will be remembered. In the proper adaptation of an appliance, arrangement should be made for this movement. If not provided for, the act of deglutition would compel it to fold upon itself, and thus interfere with that function; or, if too unyielding, it would irritate the surrounding tissues until it could not be borne. To accomplish that object the instrument is made so that its parts shall slide over each other like scales when the muscles contract the fissure.



Figures 1 and 2 represent two views of the same instrument. B, C, D, F Fig. 2, shows the anterior surface which lies next the tongue. Fig. 1, the surface exposed to the chamber of the pharynx and nares. A, A, in both Figures indicates the groove in which the sides of the cleft repose; F, F, the posterior end.

It is essential that it should be accurately adapted to the superior or hidden part of the cavity, as well as to the inferior or more exposed. To secure this adjustment, impressions of the whole cavity are taken in plaster of Paris; these impressions reveal the conformation of all those parts hidden from the eye, including the floor of the nares, the inferior turbinated bones, the vomer, the chamber, and the walls of the pharynx as far down as the fauces. From these impressions plaster models are made in the usual manner, to which models the artificial velum is adapted.

The material of which the velum is made is elastic vulcanized rubber, prepared with special reference to this object, and possesses sufficient flexibility to be carried by the muscles in any direction they act upon it; also sufficient elasticity to regain, and firmness to keep, its original position when the muscles are relaxed. It is so delicate in its structure that I have never known a single instance of irritation or inflammation of the tissue in contact with it, when properly adapted.

The material is moulded into form and vulcanised in metallic moulds, and comes from the mould finished ready for use. The metallic mould is preserved, and the number of vela for that particular case can be multiplied indefinitely.

Any *expert* in the manufacture of elastic rubber articles can supply them from the mould at a trifling cost.

It is supported *in situ* by resting on the superior surface of the palatine or maxillary bone in the vicinity of the apex of the fissure. It is retained by a very simple attachment of gold connected with it near its apex, and reaching to one or two of the teeth, with sufficient hold around the tooth to prevent its slipping off. But even the presence of natural teeth is not essential to retain it firmly and properly in its position, as in

one case which I had under treatment the patient had not a natural tooth in her mouth, and an entire upper and under set of artificial teeth was adapted, and to the upper set of teeth was attached the artificial palate, which was worn with as much satisfaction as any case that has come under my observation.

There are many points of physiological importance developed by this experience, which would be most interesting to dwell upon.

The intellectual capacity of the patient exercises a greater control over the rapidity and amount of improvement than the peculiar physical conformation of the defect. A musical ear, cultivated to a nice distinction of sounds, is of material benefit in making the most of this appliance. The age should also be taken into consideration, and as early an age as the patient would take an interest in developing its benefit would undoubtedly be preferable. The improper position in which some of the organs of speech are placed in the efforts of the patient to articulate distinctly, becomes so habitual as to be almost impossible to overcome, and, manifestly, the earlier the age at which this is attempted before these habits become firmly fixed the better. I have, however, in one instance, adapted an instrument for a patient over thirty years of age, and in another for one over forty years of age, both of whom derived very marked benefit from its use within a very few months.

Again, the sensitiveness of the individual to the defect, the mortification experienced in the exposure by their speech of this deformity, will prove a powerful incentive to their practice, and the consequent rapidity of their improvement.

It is astonishing with what entire freedom from discomfort or annoyance the velum is worn immediately on its introduction. I have never had a patient where there was any irritation or inflammation in consequence of wearing it, and only in rare cases have they ever experienced a lameness of the surrounding muscles.

In conclusion, it will naturally be asked, What has been the result of this treatment in any number of cases? I can state most confidently, a decided improvement in speech within a very few weeks—a clearness and distinctness of utterance which the patient never showed before. In some cases this progress has been so rapid that within a period of six months after its first introduction the wearer would not from his speech be suspected of possessing such a deformity; and in every case within a few months the speech has improved so much as to render them perfectly intelligible to strangers without repetition. It must not be supposed from these statements that there is any marked change in articulation immediately. There is almost always an immediate change in the tone of the voice, which is much less disagreeable than formerly; and this change is often mistaken for an improvement in articulation. I desire to be distinctly understood that the remarks in this paper apply to cases of congenital cleft only. I have referred only incidentally to fissured palate from any other cause induced. I am thus careful to make this distinction, because the application of an instrument to any other than congenital cases is so comparatively simple, and the results so quick to manifest themselves, that it forms no criterion by which to judge of the treatment of congenital fissure. A person who has once possessed the power of distinct articulation may lose, to a certain extent, some of the organs concerned in that function, and the remaining organs may be so developed as to completely hide the loss. The educated ear, then, seems to exercise such a power over the defective organs as to develope an extraordinary usefulness. These malformations are manifested much more in the attempt to articulate some languages than others. These is a most interesting field of inquiry for the physiologist growing out of this subject, which I have neither the space nor the ability to do justice to. I can only glance at it. In the articulation of the Anglo-Saxon tongue the compressor-nasi muscle is very seldom, if ever, called into requisition. In the cases of deformity which we have been considering the escape of voice through the nostrils is so great that the individual very soon forms the habit of using that muscle constantly. The result is, they acquire the power of making such sounds as do not belong to our language, but which, nevertheless, do form a very prominent part of other cultivated tongues. That muscle is much more frequently used in speaking the French language than our own. It will be readily understood, then, that these persons (other things being equal) can much sooner learn to speak the French language than our own With that language this habit assists them, with ours it must be broken up. In all cases where patients have been under treatment, whether by surgical or mechanical means, I would urgently recommend a course of practice which should tend to develope the latent powers. A course of lessons in elocution or the study of a foreign language would be admirably adapted to that end. In some cases it has been proved that these persons learn to master a foreign language even more readily than their own.

25, Manchester-square, W., London.

ON

THE TREATMENT OF MALARIOUS FEVER.

By E. HARE,

Deputy-Inspector-General of Hospitals, Bengal.

(Continued from page 620.)

Dr. Ewart, p. 369, says:—"The Medical Board's most favourable report in 1851 on Hare's experimental trial at the Calcutta General Hospital, as also under the Surgeon of H.M.'s 70th Regiment in Fort William 1849-50, gave the final death-blow to spoliative treatment by depletion as completely as that of spoliation by mercurialisation had been sealed many years before. And here I feel bound to express my humble(a) tribute of esteem for, and admiration of, Mr. Hare for giving the culminating death-blow to those relics of spoliative treatment which existed in too great profusion at the time when he first attracted notice by the publication of his views; for braving the active or passive opposition of many of his Professional brethren, many of them being his seniors in a strictly seniority service, by undertaking an experiment, the results of which established the fact that malarious fevers, whatever be their complications, were curable by generous doses of quinine; for affording conclusive testimony that it was perfectly safe to give the drug during the paroxysms; for succeeding in inspiring the Profession with the belief that it was the soundest practice to exhibit larger and, therefore, more effective doses than had been the custom of its members previously to do; for, in short, finally, and, it is to be hoped earnestly, for ever, sealing the doom of unnecessary spoliation of every kind and every form, and giving an irresistible impetus to the introduction of the present antiperiodic and conservative system which now reigns with undisputed supremacy wherever the Medical science of the West is called upon to oppose the progress of miasmatic fevers, to the honour of a noble and humane Profession, and to the incalculable and unspeakable benefit of mankind."

Lord Dalhousie, too, immediately he knew the favourable result of my experiment, and became aware, from the Medical Board, of the large increase of expenditure of quinine it would cause in our three Presidencies, with his usual forethought, wrote to the Court of Directors to make some strong efforts to introduce the cinchona tree to India; and a gentleman was sent by them to South America, and an application made to the Dutch Governor of Java obtained also other plants, which are now flourishing in large plantations in Ceylon and the Neilgherry Hills; and the cinchona, the tree for healing the nations, is now firmly established in our soil; and to prove how very general the practice by quinine has become, I give from Dr. Ewart's valuable history a table showing the rapidly-increased expenditure of quinine from 1849-50, that is before my experiment was finished, to 1859, after it (see Table No. VI. at the end), from which it will be seen that the expenditure for the Bengal Presidency alone increased from 520 lbs. to 1656 lbs.(b)

In reviewing also the results of the experiment, a necessary question arises, How does quinine act? It was introduced to the world as a tonic, and it produces very remarkable head symptoms. So long, therefore, as the congestions of fever were considered as inflammatory, and remittent fever to require active depletion, we need scarcely wonder that it should have been so carefully excluded, especially when the fever caused head symptoms; and it was this prejudice in particular which I especially went to Calcutta to disprove, for I knew that these latter cases were the most fatal, and therefore those requiring the earliest and largest doses of

(a) Page 369 *Indian Annals*, No. 14, 1861. Review of the Treatment of Tropical Diseases. By Dr. Ewart, Professor of Anatomy and Physiology, Medical College, Calcutta.

(b) My regiments on two occasions, in the Burmese war and the siege of Delhi, subscribed largely from their canteens to purchase a private stock lest my public store should run short, and to enable me to give them quinine unsparingly.

quinine, and the head cases were those whom, in my experiment, I especially attacked vigorously with my remedy; and it was soon evident to me, as it will be to any one who tries the large doses, that, so far from exciting, quinine produces the most deadly coldness of the skin, feeble pulse, sometimes intermitting, complete deafness and amaurosis, evidently from its powerfully sedative, almost paralysing, action on the brain. The delirium also it causes is not active, but a low muttering wandering. It is, in fact, to me quite certain that no one had ever tried quinine in acute fever except in small doses, when it does produce often a peculiar excitement, especially of the head; but in large full doses it is the most powerful and alarming sedative. I have during my practice often been frightened with my own results. I recollect one case which made a strong impression on me. It was in Burmah. A young officer of my regiment, Lieutenant M——, was sent in from an outpost, having had remittent fever for some days, and he was reported to me as having been delirious the night before, and in great danger. I saw him first about 3 p.m., and found him in the most hopeless state. The accession was just coming on, and I knew that he must die in the night if it was not checked. There was therefore no time for delay.

I instantly gave him ʒss.; at 5 p.m. he took ℈j., and at 7 p.m. ℈j. more, or seventy grains of quinine in four hours, and I sat down by his bedside to watch the result. No paroxysm appeared—it was quenched by quinine as water does fire. His skin became deadly cold, his pulse fluttering, with complete deafness and muttering delirium. He was very restless, complaining that he saw devils and things floating before his eyes. The pulse alarmed me greatly, and I gave him repeatedly a glass of port wine. In the course, however, of about four hours these dangerous symptoms subsided. He fell asleep, and the next day was not employed in giving medicine, but in giving him food. His fever left him from that night, and he was soon well, and is now strong and robust, and an ornament to his profession. Major S——, of the same regiment, was almost a similar case, and I could enumerate numerous others. No one in fact, living, has given quinine more largely than I have, and though I have as yet had no fatal result from it, I have often dreaded such a misfortune, in cases where I felt justified in giving it very large doses; and the dangerous symptoms have always been, not excitement, but deadly coldness, arrest of the pulse, and paralysis of the heart. These, however, are the effects of large doses; given in small quantities it produces, in some cases, a peculiar kind of excitement.

I will now close my account of the Calcutta experiment. Its results were published to my service in India by a copy of the report on it being sent by the Medical Board to every Medical officer. I was, at my own request, posted to a European regiment, and I determined quietly to allow the seed I had sown to produce its fruit, and as for myself, with the noble opportunity which the Surgeon of a European regiment has, especially on service in Burmah, I resolved quietly, instead of perpetually writing, to wait my time, collect my results, and see what further experience would teach me.

I have since, as the Table No. 5 shows, treated 6982 fever patients, with only one death in every 211¼ cases, and I have to describe but one change in my treatment, which, however, I consider a most valuable and important improvement. I have, in fact, gone backward, it may be thought by some, in my antispoliative treatment, and resort now, I am certain in some cases with great advantage, to mercury.

I have not, however, lost any of my old confidence in quinine. I maintain still that given early and in sufficient doses, it is a perfect antidote; and I would cheerfully go back again to Calcutta and try my experiment again with quinine *only*, and a syringe to wash out the bowels with plain water. With water to wash out the bowels and apply to the head, and plenty of quinine, I want no other medicine for the treatment of the worst forms of tropical fever. Leeches, bleeding, purgatives, emetics, are, if not useless, at any rate unnecessary. You can cure all your patients without one of them. Why, then, do I now use calomel? I will explain.

Quinine, as is shown above, when given in the large doses which are occasionally necessary to save life, in cases where the fever has been of some days' continuance, produces very dangerous and distressing symptoms; though I assert again that I have never yet had a case where the results were fatal, nor do I know any case of mine in which even the patient complained of any lasting bad result from it, and in a regiment I was with so many years I must have known these results, if there had been any. Yet I can easily conceive of such accidents occurring, where very large doses, as ʒj., were given at once, but with only one ʒss. dose to commence with, and ℈j. doses given at intervals of never less than three hours (and I have rarely, indeed, found more necessary), the symptoms of cinchonism will soon warn you to stop the medicine before sufficient can have been given to poison.

However, besides this, any one who treats many bad forms of fever will often find himself puzzled how to act when the patient, as he often will, vomits his medicine. It may be written down, as an axiom in all cases true, give plenty of quinine to a case of malarious fever and it will be cured; but this is not always so easy in practice as it appears on paper, for if you cannot give the quinine because the patient vomits it, what are you to do? You are reduced to the same perplexity as Dr. Johnson was in his first trial of bark. With the very bad and long-neglected cases in the non-military General Hospital this was the bane of all my pleasure, for I really would have enjoyed my practice there but for the anxiety these vomiting patients sometimes caused me. When I went into the ward and asked how Smith or Jones was, the apothecary would tell me he was very bad, and had brought up all his medicine. There was no time for delay. The patient, if he could not retain the quinine, would probably die in the night; and I would go to his bedside, and persuade him, perhaps with difficulty, to swallow another dose, but before I left the ward, to my disgust, I heard the sound of vomiting again, till sometimes I was much perplexed. However, by not allowing the patient to drink anything, and by giving the quinine in pills, in port wine, in soup, or, if the patient were a spirit drinker, in brandy, I always contrived to give him sufficient to check the fever, and then his stomach would bear more; but still it was only by very careful management that I did so, and always with great discomfort and distress to the patient. In the General Hospital I had no choice. I was obliged there to continue the simple quinine or give up my experiment; but since then, while I was in Burmah with my regiment, and was trying there calomel and quinine in large doses in the treatment of malarious dysentery, I soon became convinced how much one drug assists the other in producing its peculiar constitutional effects. There are many cases of fever which I described above which cannot be salivated with the largest doses of calomel aided by mercurial frictions, but if you add quinine to these doses you will find that salivation quickly appears.

Dr. Morehead notices the same fact, p. 205. He says:—"I can state from my own observation that it is by no means an unusual occurrence in the course of remittent fevers, which in their early stages have required the exhibition of several full doses of calomel, to observe, after the recurrence of the fever has been prevented by quinine, a slight mercurial action to appear on the second and third day, though not more than a few grains of calomel or blue pill, in combination with quinine, had been given during those days." Dr. Watson also, and many other writers on the treatment of intermittent fever, notice how much better and more quickly quinine acts the next day if a full dose of calomel be given over night.

Again, when I left my Hospital, and had to treat children for fever, I found the little things sometimes obstinately refuse to take large doses of the bitter medicine, and often if they did take it, it was vomited; and I confess that I rarely now treat a young child for bad fever without mixing calomel with the quinine. Its effects on them, without producing any visible constitutional effects, are marvellous, and the quantity of quinine you are obliged to give is greatly reduced. My rule, therefore, now is, if a patient can take quinine in the quantity I think necessary for his safety, I give it only; but if he vomits it often, I give him a full dose or two of calomel, and I prefer the old ℈j. dose to any other from its inimitable effects in checking vomiting. I never have had occasion to exceed two doses; and I find I can then continue the quinine without any trouble to myself or patient. The quinine also need not be stopped, but given with the calomel; the calomel put dry on the tongue, and the quinine given in pills.

To a child I give one large dose of quinine to start with, and try and repeat it, but if the little thing is sick and refuses it, I drop two or three grains of calomel dry on its tongue, and mixing three to five grains of quinine in jelly, I make it into a pill, and put it on the end of my finger into the child's throat. This cannot so easily be done with ten grains, which without the calomel would be required. Very soon, however, you will find that this treatment will check the

fever, and you can then stop the calomel, and continue only the quinine. There is no necessity to salivate any one, or give a grain of calomel more than just sufficient to assist the quinine, and in many cases it will be found a great comfort to both patient and Physician to give it in this way. I believe myself that as quinine is an antidote so is calomel, and that the two in combination have a more powerful and immediate effect than separately. Were we to be so unfortunate as to lose cinchona, which to us residents in the tropics would be as sad a loss as the fire which Prometheus restored, we must resort, I think, to the calomel system again, for bleeding alone and purgatives will not check the paroxysms of remittent fever. It requires, as Johnson soon found, something more to propel the stagnant congestion, and the salivation system only began to yield as quinine was gradually introduced. In the chronic forms of malarious disease, where we have time to produce the constitutional effects of arsenic by small doses, we could use it, for the results of arsenic are often in ague far more permanent than quinine.

In conclusion, also, I must, in self-defence, explain other details in my practice. My published treatment may induce my readers to suppose that I treat every case of fever with ʒss. and ℈j. doses of quinine, and push it to the utmost; but it must be recollected that my published cases, and the treatment I have recommended, is only for *extreme* cases, and where there is urgent danger of life. Also I must be pardoned, in performing an experiment on quinine in the General Hospital, for pushing my treatment to extremes. Half the value of the results of my experiment would have been lost, if I had not done so, for it is only the extremes of any practice which show its really hurtful tendencies. And I confess that I might have saved much of the quinine which I gave to my patients during my trial; but I might have lost some of them had I tried to adopt this economy. I never witnessed any harm from giving over-doses; and I thought it right, to settle finally the disputes about the danger of quinine in head symptoms and local congestions, to push it to extremes; and no one, I think, can be sorry that I did so—not even my patients; but I do not do so now. I do not, moreover, push quinine through the paroxysm, if I have time, and can safely avoid it; and prefer the sweating stage to any other for my largest dose, for the febrile disturbance of the accession is unfavourable for the absorption of all medicines —quinine, calomel, and purgatives included. All I say is, if there is danger, do so. Only a few cases also require heroic doses, but these being more particularly described, assume the most prominent position in every description of systems of treatment, and are too apt to be considered as resorted to in every case. I frequently give fever cases only ten-grain doses, oftener still only five grains three or four times a-day, and to a few none at all, but treat them with a purgative, low diet, and rest in bed. In justice, however, to your patients, you ought to give them a little quinine, for why let them be sick, when they may be well so much sooner? But when I see a patient with dull eye, cold, clammy skin, tremulous tongue and oppressed pulse; or another, with acute head symptoms, delirium, and impending coma; or a child, with spasmodic contraction of the thumbs, squinting, or actual convulsions, in a paroxysm, I do not lose time by preparing such cases for quinine with purgatives, etc. I know the danger impending, and I give them (at least the adults) ʒss. of quinine at once and follow it up with ℈j. doses every three or four hours, according to the symptoms it produces, till they are fairly cinchonised, and if they vomit the quinine I add ℈j. or ℈ij. of calomel. I never give more than ʒss. of quinine in one dose, and prefer frequently repeated ℈j. doses, because you can watch better the symptoms it produces, and stop it before the cinchonism becomes extreme.

Also, with respect to diet, I do not offer or prescribe food for a young soldier just attacked with fever; I would give him little or nothing for the first day or two; but if I have a patient sent me who has had fever for a week or more, I feel sure that he is starving, although he may have no appetite—perhaps, even, he may loathe food, and I persistently make him swallow small quantities of soup, arrowroot, and milk, and if I know him to have been a spirit drinker, or even a free liver, I give him wine or spirit. This is all that I wish to impress on my readers: that malarious fever is not an inflammatory disease, but the direct contrary, and requires no depletion by bleeding or purgatives, and that the congestion of the liver, etc., which appear in fever, and the morbid secretions thence arising, are best cured by early and large doses of quinine, under the use of which the congestions disperse, and with them the morbid secretions. Also that we can support the strength of the patient without danger by proper food and nourishment. Let a patient be therefore the first day or two of his fever with but little food, but afterwards give it to him in moderation, and especially do not starve children.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

TWO CASES OF MEDULLARY CANCER OF THE HAND.

(Under the care of Mr. FERGUSSON.)

[For these cases we are indebted to Mr. Bellamy, Surgical Registrar.]

Amputation of Hand for Medullary Sarcoma—Recovery.

Case 1.—Maria L., aged 30, married, healthy-looking, no history of cancer in family, was admitted into King's College Hospital March 18, 1864, with a large fungous, bleeding tumour, involving the whole of the palm of the right hand. She first noticed a small tumour in the palm of her hand about ten years ago; it was hard, and somewhat painful, and increased gradually in size until about two years ago, when the skin becoming involved gave way, and from that time it increased very rapidly, spreading over the palm, and developed into cauliflower-like excrescences, discharging, and very fœtid. She attended for some time as an out-patient, during which time various cauterising agents were applied, but they did not check the growth in any way.

On March 19 the mass was removed, being carefully dissected from the underlying tissues. The muscles of the thumb were not affected. No vessels were ligatured, the bleeding being suppressed by lint pads. The wound rapidly granulated, but the disease appeared in the granulations as early as April 2. She went out, however, for a short time, but returned on April 22 with the hand in much the same state as on her first admission.

Mr. Fergusson determined to remove the affected parts, leaving as much of the hand as possible. He accordingly (April 25) amputated the first, second, third, and fourth fingers, through the metacarpal bones, by lunated incisions through the soft parts, leaving the thumb whole; the edges of the wound were then brought together by sutures.

The wound healed rapidly, leaving an excellent stump, and she was discharged May 11.

Up till the present time there has been no return of the disease.

Amputation of the Hand for Medullary Sarcoma.

Case 2.—Elizabeth J., aged 70, married, healthy, no history of cancer in her family, was admitted into King's College Hospital with a large medullary tumour, involving the palm and third finger of her right hand, pushing aside the second and fourth fingers.

She ran a nail into the third finger of her right hand about forty years ago; the wound healed, but she was subject to pain in it ever since. About eighteen months ago the same finger began to swell, became livid, causing her great pain; it increased rapidly in size, and in March it was amputated at the metacarpo-phalangeal point. The stump never healed; and about eight months later the palm of the hand became affected in the same way as the finger; the surface ulcerated a short time after this, having bleeding cauliflower-like excrescences discharging very fœtid matter.

On admission, the hand was very much swelled and heavy. The mass (which had grown very rapidly) was black and fungous-looking, bleeding occasionally, and very offensive. The thumb and second and fourth fingers seemed unaffected.

On November 5 Mr. Fergusson amputated the forearm by a flap operation, cutting the flaps from the surface towards the bones.

The wound healed readily, with the exception of a slight erysipelatous blush, which soon disappeared; no complication attended the operation.

She left the Hospital on December 11 in good health, and with an excellent stump.

EDINBURGH ROYAL INFIRMARY.

CLINICAL WARDS.—NOTES OF SOME CASES OF SYCOSIS, AND OF A CASE OF ECZEMA PRODUCED BY PARAFFIN OIL—CLINICAL REMARKS BY PROFESSOR LAYCOCK.

Reported by Dr. Dyce Duckworth, the Resident Physician to the Wards.)

A variety of cutaneous diseases have been under treatment in Ward No. 2, known generally as the "skin ward," since the Session [1863-64] commenced. Several of these have presented features of unusual interest, and received minute attention and scrutiny at the hands of the Professor. The following cases are noteworthy, and possess a practical interest:

Case 1.—*Sycosis Menti vel Mentagra of Two Years' Duration.*

T. P., aged 21, a wood forester, from Selkirkshire, was admitted to Ward 2 on October 26, 1863, suffering from an eruption on the chin. He stated that during the antumn of 1861 he took a cold, and about that time first noticed a kind of scab forming under the left angle of the mouth. The skin was reddened, and soon small pustules appeared upon it. Gradually the eruption spread, and extended along the upper lip to the opposite side of the mouth. The entire chin became involved, and the affection spread inferiorly as far as the skin over the hyoid bone. Several methods of cure have been adopted during the last two years, but without beneficial results. Sometimes under treatment a portion of the eruption disappeared; it, however, returned, and had hitherto proved intractable.

On admission, the upper lip and chin were seen to be covered with a yellow scab matting the hair of his moustache and shortly-clipped beard. In parts small isolated pustules were seen, turgid with pus and having a hair issuing from their summits. On closer examination, it was obvious that the parts exclusively affected were those from which the beard and moustache grew; thus the eruption occurred at the angles of the mouth and at the parts below the centre of the lower lip—the site of the "imperial," but not in the whiskers. No pain was complained of, and there was no itchiness.

He was ordered to foment the chin well with warm water, and then to apply a strong alkaline lotion consisting of an ounce of the bicarbonate of potassa to four of distilled water. This was with the view of dissolving the crusts. The hair being closely clipped to the level of the skin (for this is always necessary in using any lotion to the hairy surfaces), the lotion was applied on lint by means of a mask of oiled silk, which passed under the nose, included the entire chin, and was fastened behind the head. The parts were fomented with warm water twice daily. Dr. Laycock diagnosed the affection as sycosis. The fig-like character of the disease was more especially manifested on the 29th October, when the crusts and scabs being removed the pustular points were seen standing out on a darkened red base, presenting very much the appearance of an opened fig. The alkaline lotion was continued for a few days more. Dr. Laycock directed attention to the following points in connection with the case. He stated that this affection is considered to be of parasitic origin and infectious, and cited cases which had occurred in his own experience which proved the truth of this belief.

"If this were so, then why did the disease not attack this man's whiskers?" The disease was proved to be communicable from chin to chin, but the whiskers escaped this particular form. He stated that there was a form of sycosis which attacked the whiskers solely, and not the chin. According to the Professor, there are three distinct portions of the facial hair, and the development of each is found to differ in different men. There is first the jaw hair or masseter beard; some men have this alone and no other kind. Next there is the chin hair, with that of the upper lip—the moustache—constituting the muzzle hair or beard. This is first developed, and very commonly the only part of the facial hair that is developed. And lastly there is the face beard, or that between the jaw and the muzzle beards, over the zygomatic and buccinator muscles. The face beard most commonly accompanies the jaw beard. The muzzle hair is in relation with both the ovaria and testes, and is apt to be fully developed in women sometimes, as in the *Fœminæ barbatæ*.

It appears that there are three forms of sycosis which may attack different portions of the beard.

Dr. Laycock pointed out how skin affections generally, and those affecting the hair regions in particular, follow this law. Even pediculi have their proper hairy habitat. He believes that there are special centres of innervation and nutrition for each of the before-mentioned portions of the beard, and are indicated not only by the varying development but also by the differences of each as to earlier and later greyness; and further, that there are definite peripheral nervous distributions in these parts which probably the scalpel will never reach. It is this consideration, then, which points to the pathology of these somewhat anomalous cases. We must believe that there are certain regions rendered liable to the morbid invasion by defective nutrition, while others, perhaps in immediate proximity, though in another nervous area, remain free from and unaffected by the existing morbific influences, because their nutrition is healthy. Now, in this case the disease never spread from the muzzle hair.

The alkaline lotion was discontinued, and it was decided to treat the case with arsenic locally. There was ordered, ℞. Glycerinæ, f. ʒx.; liquoris potassæ arsenitis, f. ʒij. M. ut fiat lotio. To be brushed into the affected parts night and morning after ablution.

Two days after this treatment had been practised, the chin looked red and irritated. The arsenical glycerine was discontinued, and the alkaline lotion ordered to be reapplied.

November 7.—The parts are improved in appearance. The arsenicated glycerine is being employed again.

13th.—It seems that the disease has been spreading a little below the chin, and the pustules lie on an irritable red base. General health good. To discontinue the arsenicated glycerine lotion, and apply nothing to the parts. Dr. Laycock showed how the arsenical preparation had acted in inducing an active inflammatory condition: this was a step towards the removal of the disease. It is a peculiarity of arsenic that the inflammation it excites entails a new and modified action of the part subsequently. Sufficient inflammatory action was induced in this instance, and it was now prudent to suspend the remedy, and wait for the ultimate results of it.

19th.—The pustules have dried up and formed crusts in various portions of the chin. The skin below is much less red. Ordered to wash the chin several times a-day with olive oil and the yolk of an egg mixed, instead of soap, and to foment the parts with warm water subsequently. The hairs to be clipped short with sharp scissors. The patient was decidedly better from this time, and but few pustules were seen to be forming. They were most numerous in the centre of the chin over the site of the imperial beard.

In two days after this all the scabs were removed, and a thickened, discoloured base was to be seen where they formerly existed.

30th.—The chin and upper lip are now nearly clean. Daily ablution with oil and yolk of egg was practised, and the hair kept short by clipping. A few pustules still to be seen in the centre of the chin, and one or two below it. These were ordered to be punctured with a needle and let out, afterwards to be touched with the arsenicated glycerine.

December 5.—The above treatment has been practised, and the same process has occurred which was before described, viz., the formation of a crust, and resolution of the inflammatory action. The parts to be washed twice daily with oil and yolk of egg and fomented.

13th.—All the pustules have disappeared, and the skin is merely reddened. Discharged this day.

Case 2.—*Sycosis of the Muzzle Beard and Eyebrows—(furfuraceous form)—Cured by Arsenicated Glycerine.*

J. F., aged 47, blacksmith, from Oldham, was admitted to Paton's ward with symptoms of an intra-thoracic tumour and general bronchitis.

While under treatment an eruption appeared simultaneously upon his chin, upper lip, and eyebrows. It was slightly raised, and followed the distribution of the hairs. The whiskers were unaffected. The affection was observed for some days before any treatment was adopted. The eruption desquamated and threw off furfuraceous particles. It was slightly itchy.

The arsenicated glycerine was ordered to be applied several times in the day with a camel's hair pencil over the affected parts. Symptoms of slight irritation ensued after its employment for a few days, but it was still persevered with. In less than a week an improvement was noticeable, and in ten days the patient was able to shave without much discomfort. All traces of the disease disappeared in the course of a few days.

Case 3.—*Sycosis of the Three Beards of Five Years' Duration—Depilation—Cure.*

F. M., aged 36, a brickmaker, was admitted into Ward 2 on January 3. He came from Lancashire, seeking relief from a

cutaneous disease of his chin and face, which had existed for five years, and yielded to no treatment.

The case was readily recognised as one of sycosis, and presented many of the characters of Case 1, just related. It differed from it, however, in being more extensive, and was seen to involve all the facial hair with the exception of the eyebrows. The patient could assign no cause for his complaint, and was accustomed to employ his own razor. There was a large production of sero-purulent secretion from the parts, and the derma was thickened and tender.

After the usual washings and clipping of the hairs the following treatment was adopted :—The face was brushed over with glycerine, and then thickly dusted with precipitated chalk. This had a decided desiccative effect, and afforded relief. He was put on liberal diet with wine. In course of time this treatment did not give signs of producing an alterative action, and accordingly recourse was had to the arsenicated glycerine, which was kept constantly applied. At the same time five minim doses of liquor arsenicalis were taken three times a day after food. These measures were adopted for several weeks with very slight resulting benefit. The arsenic did not seem to irritate in any way, still numerous pustules were constantly appearing. Some hard indolent furunculoid bodies likewise came out under the jaw.

It was now decided that nothing short of depilation of the affected part would prove effectual in removing the disease. This was accordingly ordered.

The clinical clerk removed daily with the dressing forceps a number of hairs, and the patient followed up the practice, and became expert in their complete removal.

A lotion of glycerine and water containing two grains of sulphate of copper to the ounce was likewise applied on lint to the face day and night.

A decided change followed this procedure. It was observed that new pustules now appeared only where the hair had been broken off, and not properly pulled out. The depilation process was painful and necessarily tedious. In about six weeks there was hardly a hair of the entire beard and whiskers to be seen. The disease disappeared with the complete removal of the hair, but lingered wherever there was a broken hair. The patient left for his home quite cured in the second week of April.

Case 4.—*Eczematous Affection produced by Contact of Paraffin Oil.*

This case is remarkable, inasmuch as it illustrates a form of skin disease which may, perhaps, become more common amongst artisans now that the uses of paraffin oil are so extended.

M. J., aged 22, was admitted into the skin ward on the 17th November, suffering from an eruption upon the arms and legs. He states that he is employed in a paraffin oil manufactory near Edinburgh. Three weeks ago he first observed the eruption, having only been about a week at the manufactory. His occupation was to carry jars of the oil to be stored in the works; in doing this he frequently spilt some of it upon his trousers, and generally saturated the parts over his thighs. His hands and fore-arms were likewise often covered with the oil. Suffers from bronchitis, and was discharged from the 26th Regiment on account of it.

Integumentary System.—On the front of the thighs and legs and the backs of the fore-arms there is a vesicular eruption. It is everywhere similar in character. On the thighs there are some thickened patches of cuticle and sordes covering part of the eruption. The vesicles are aggregated in places and isolated at the margins. A strong odour of paraffine is perceptible from the clothing, which is apparently saturated with it. There is no itching experienced in the affected parts, but some irritation is complained of. Ordered a warm alkaline bath.

November 19.—Has had two baths. Some of the cuticle and sordid matter is removed from the thighs, and the nature of the disease is better seen. Some of the vesicles seem inclined to be pustular at their summits. A hair is seen in the centre of each of them. It was now considered proper to treat the eruption locally, and the difficulty was to think of any agent that could counteract or neutralise the action of paraffin. The derivation of the word suffices to show that nothing will enter into combination with it; it is alike unaffected by either acid or alkali. Under the circumstances, it was decided to apply an alkaline lotion to the parts, and to keep them constantly moist. ℞. Sodæ bicarbonatis, ʒij.; aquæ puræ, ʒxvj.; solve ut fiat lotio alkalina. The patient kept his bed, and had the lotion applied several times a-day on lint and covered with waterproof sheeting. Treatment was, moreover, adopted for the bronchitic affection.

But little change was observable for a week or ten days. There was no spreading of the disease; the cuticle was now fairly removed, and the parts were clean.

29th.—The vesicles are now disappearing, and the skin is less red and thickened than it was. Alkaline lotion still continued.

December 3.—Eruption is fading, and the skin is becoming level; still red and discoloured. The arms are now well. His cough is nearly gone. To discontinue the lotion.

10th.—The skin is now free from all vesicles, and is only discoloured. Is up during the day. Has warm baths at intervals, and is wearing clean clothing.

15th.—Discharged to-day.

Dr. Laycock called attention to this case as illustrating one of the class of skin affections which artizans are liable to suffer from. He had not met with a similar case before in his experience. The benefits of the alkaline treatment were very marked and obvious. Another patient recently admitted to the ward with inveterate psoriasis states that, amongst other remedies employed when treated in Glasgow, paraffine oil was applied with benefit to the patches. It, however, brought out an eruption in the neighbourhood of them. His case was treated by inunction with tar ointment; and in the course of the third week of its employment a papular eruption occurred symmetrically upon the inner aspects of the knees and thighs. It became pustular, and faded in about ten days, the tar inunction being maintained throughout its course. The patient left with a perfectly smooth skin after undergoing this treatment for eight weeks.

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Medical Times and Gazette.

SATURDAY, DECEMBER 17.

MR. GRIFFIN'S NEW POOR-LAW MEDICAL RELIEF BILL.

It is now four years since leave was given for the introduction into Parliament of a Bill having for its object the improvement of the condition of Poor-law Medical Officers. The Bill may be said to have been entirely the result of the untiring exertions of Mr. Richard Griffin. It was unsuccessful, and its failure was at the time, we believe, attributed to the insertion of matter not wholly relevant. Whatever may have been the causes of its ill-success, Mr. Griffin does not appear to have been in any wise daunted by his then failure. We last week printed a draft of a Bill which he is now desirous to entrust to the care of some member, and for which we heartily wish we could prophecy a success commensurate with his untiring and unselfish exertion. But we greatly fear that it must come to an end as untimely as that of its predecessor.

We have given much careful attention to its provisions. The following remarks may seem not very favourable; but let it be distinctly understood that our only motive has been to point out defects which are likely to lead to failure, so that they may be avoided in future.

Clause 1. (a)—Though all classes—officials, guardians,

(a) 1st. That within six months after the passing of this Act it shall be the duty of the Poor-law Board, under the advice of the General Council of Medical Education and Registration of the United Kingdom, to lay down a uniform system of Medical-relief for the poor.

Medical men, and ratepayers—confess that Union Medical officers are, as a body, underpaid, none would be prepared to say that, even with six months' notice (which is what Mr. Griffin proposes to give to the Poor-law Board), they could frame a scheme of Medical relief which should satisfy both ratepayers and Medical officers. This, however, is what the first clause of the Bill enacts that the Poor-law Board shall do. Then, as if it would not be a task difficult enough for that body to accomplish alone, the same clause adds another element of confusion by putting in "under the advice of the General Council of Medical Education," etc. Now, this would render a settlement of the scheme doubly difficult, since our Council would naturally fight for the interests of its own subjects, while the Poor-law Board would—not only naturally, but, as the very object of its existence, of necessity—legislate for the protection of all parties, including, of course, the ratepayers. The case would result much as did that in the fable in which the monkey had to adjudicate between the two cats, and the chances are that the interests of the Medical officers would find themselves "*improved* off the face of the earth," as the Yankees say.

Clause 2. (b)—The establishment of Dispensaries by the guardians of thickly-populated Unions, parishes, etc., does not, in our opinion, demand legislation. We understand from good authority that in several places so situated Dispensaries for the poor have been established, and competent dispensers appointed and paid out of the rates, and this with the consent of the Central Board, who do not appear, in this particular at least, to require the coercive influence of Parliament. It is true that in these cases the initiative has always been taken by the guardians, whereas this clause of the Bill enacts that the Poor-law Board shall "order" the adoption of the Dispensary system. Surely, however, the guardians who are on the spot must be better aware of the exigencies of their own surroundings than can be a Board—always, by the way, an unsatisfactory referee in such cases—situated at a distance, and able to acquire its knowledge of the circumstances only through third parties.

Clause 3.(c)—This clause, again, is merely a question of the relative merits of *may* and *must*. At present the course proposed *may* be adopted, and in very many Unions is so already. Whether it is expedient to say that it *must* be followed, is, we are of opinion, a question on which numbers even of the Medical officers, would be undecided, more especially when it is borne in mind that the fact that the Medical officers were not to provide medicines at their own cost would, of course, be recollected by those—whether Poor-law Board or Medical Council—who have the framing of the uniform system of Medical relief which the Bill is to establish.

Clause 4.(d)—This clause appears to us to propose the most real boon of any in the measure, and is the one which we fear must raise sufficient opposition, should leave be given to bring in the Bill, to prevent its attaining to a second reading. It proposes to effect a radical change in the system of Poor-law Medical relief, and (desirable or not) it will work thus:—Honourable members who have not investigated the subject will feel that they cannot conscientiously assist in bringing about a great change in a system with the merits of which they are totally unacquainted. Honourable members who give the subject even slight attention will encounter, almost at the outset of their inquiries, the recommendation of the "Select Committee on Poor Relief, 1864," before which Mr. Griffin and many other equally valuable witnesses were examined, the result of whose long and earnest deliberations appear in these words:—"There are no sufficient grounds for materially interfering with the present system of Medical relief, which was made the subject of special and lengthened inquiries by select committees of this House in the years 1844 and 1854." In face of this recommendation, we do not understand how any one can get the assent of the House to a change so vital as that proposed in this clause.

Clause 5.(e)—We have referred to the existing regulations of the Poor-law Board on this point, and we find that there is already a list of cases in which extra fees are to be paid; and, looking to the sums which a Medical man could expect to receive for the treatment of such cases when occurring in the cottage of a working-man—not a pauper—we can hardly consider the amounts fixed for the several items in that list as inadequate payment in the case of a pauper. Should, however, any particular one appear insufficient it seems to us that dignified remonstrance addressed to the Poor-law Board—say, by the Medical Council or in a memorial from Medical officers—would meet with attention even from the supercilious "central authority," and lead to alteration which would be effected much more readily thus than by an expensive and clamorous appeal to the nation through the House of Commons. In regard to the latter part of this clause, we understand that the Guardians are at present allowed to commute the extra fees, on making to the salary an addition calculated on the triennial basis; but, with respect to the cases in which the fees are already commuted, it must be remembered that such an addition as that proposed has already been made to the salary, and to make a further one would be to pay twice over—an operation which is not usually looked upon with favour by any class of payers.

Clause 6.(f)—This clause only confirms the existing state of things, and, therefore, does not appear to call for comment.

Clause 7.(g)—However desirable it may be that classified returns of this nature should be submitted to the House, we doubt whether to seek to throw the duty of presenting them upon the Poor-law Board is not risking the safety of the Bill for the sake of a bit of fancy legislation which can have no material effect in improving the condition of the Medical officers. We fear that this clause must be looked upon as endeavouring to import into the Bill foreign matter, and will lay it open to the objections which were entertained and expressed to the "Coroners' Clause" in the last Bill.

Clause 8.(h)—This is, of course, merely a formal clause; but it appears to us that if it was necessary to enact that the Poor-law Board should take the proceedings set forth in the

(b) 2. That the Poor-law Board shall order the establishment of Dispensaries in all those parts of Unions, incorporations, and parishes under Local Acts, where the population resident in an area, the diameter of which is less than four miles, exceeds 10,000 in number, and, when they deem it expedient, may unite the Medical departments of two or more Unions, incorporations, or parishes for the purposes of this Act.

(c) 3. That in Unions, incorporations, and parishes under Local Acts, or parts of one or the other, where the population is much scattered, the Poor-law Board may allow the Poor-law Medical officers to find medicines for the sick poor, and shall direct the guardians to pay them in addition to their salaries such sum or sums of money as the Poor-law Board, under the advice of the Medical Council of Education and Registration, shall advise.

(d) 4. That the Poor-law Board, under the advice of the General Council of Medical Education and Registration of the United Kingdom, shall fix the salaries of all the Poor-law Medical officers, whether Union, parochial, or under local acts in England and Wales, on a uniform and definite principle, especial regard being had to the number of sick poor attended by them, and the distance to be travelled.

(e) 5. That the Poor-law Board, under the advice of the General Council of Medical Education and Registration of the United Kingdom, shall draw up a list of cases for which extra Medical fees shall be paid, and also fix the amount of money which shall be allowed for each case on such list; but should the guardians be desirous to commute the extra Medical fees, they may be allowed to do so on making a triennial calculation of the amount of fees which have been paid during the preceding three years, and adding them to the salary, but where the fees have already been commuted that then a calculation of the cases where fees would have been payable but for the commutation shall be made, and the amount added to the salaries.

(f) 6. That all medicines found by Boards of Guardians or their Medical officers, all salaries, and all extra Medical fees, shall be paid for out of such monies as shall be annually voted by Parliament for the purposes of Medical Relief and by the Boards of Guardians in equal shares and proportions, or in default of any Parliamentary grant for the purpose, then the whole payment shall be a Union charge.

(g) 7. That the Poor-law Board shall annually lay before Parliament a classified report of the diseases treated by the Poor-law Medical officers in each Union, incorporation, or parish under a local Act in England and Wales, and also the number of deaths occurring in each class.

(h) 8. That the statutes now in force, or rules, orders, and regulations of the Poor-law Commissioners or Poor-law Board, or parts of either one or the other, which are contrary to the true intent and meaning of this Act, shall be and they are hereby repealed and rescinded, and from and after six months from the passing of this Act shall have no force or effect, but nothing herein contained shall prevent the Poor-law Board issuing any order or orders, or making any rule or rules, or regulations, for the better carrying out the true intent and meaning of this Act.

foregoing clauses only "under the advice" of the General Medical Council, it was hardly expedient as soon as the scheme is set agoing to turn that same Board loose upon the Medical officers with power to "to issue any orders," make rules, etc., quite irrespective of the Council and without reference to its advice or wishes.

The Bill may pass; but whether it becomes law or not, of one thing we desire to express the fullest sense, and that is, that Mr. Griffin, in its compilation, has been actuated solely by the desire to benefit the large and underpaid class of which he is the representative; and whether he is now successful or not, we are quite sure that he deserves the best meed of gratitude from all his Professional brethren. He will be long remembered for the warmth and the honesty with which he has invariably advocated the cause of the Poor-law Medical officers.

MODERN SYPHILOGRAPHERS.—No. IV.

If we select a well marked and typical illustration of the true or indurated chancre, and compare it with a model case of the so-called chancroid, or soft non-infecting sore, we cannot avoid perceiving some marked differences in the character of the symptoms, the progress, and effects of two processes.

Between some examples of these different kinds of primary lesion there may be a great difficulty, or even an impossibility, of drawing the line; but it is sufficient for our purpose that some lesions are, and some are not followed by constitutional symptoms. Of the nonconformable series we shall speak hereafter. Now, are (1) these differences the varied products of one and the same cause: offspring—however modified and dissimilar apparently—of the same parent? or (2) do they acknowledge different and distinct causes, each traceable by a lineal continuity of descent, like the species of the naturalist—viz., like producing like, and that only? (a) We leave the reader to draw his own conclusions from the following considerations:—

The relatively modern history of *true* syphilis, as compared with that of the local contagious ulcer, we have already given. Whether the syphilitic virus took its origin in some source foreign to the human body, or whether the secretions of the soft ulcer acquired in the 15th century a new potency which gave rise to the indurated sore, which that lesion and the descendants from it have since retained, we know not.

If the seed be the same, then the varied products may depend upon the nature of the soil—the individual inoculated. Now Continental syphilographers, by a series of laborious investigations, have not only failed to discover in sex, age, constitution, or temperament the cause of the different results, but observation and experiment have shown that a double, and not a single line of descent, can be traced. By observation,—one and the same individual has suffered many attacks of venereal ulcers, and after one such attack only, and that the last of the series say, have secondaries followed. The constitution, etc., being the same, it would seem to follow that the last differed from the others in essence. By experiment:—Take Daniellsen's series of inoculations for the cure of Norwegian leprosy. In only one instance did constitutional manifestations of syphilis ensue, and in that the secretion of an indurated sore had been used. And, lastly, we have the authority of numerous Continental inquirers, who have traced the descent and parentage of the two different sores by what is called "confrontation," for stating, that *true* syphilis is only acquired from contact with a syphilitic, and *vice versa*. If this be the case, then it follows, that a suppurating bubo is not the cause of the non-appearance of constitutional symptoms, but one of the signs of a different disease, depending on a different cause. Many syphilographers, and Sperino among them, consider the poison as one and the same, and regard the varieties in the morbid processes—as the presence of suppurating groins—as the exponent of the different effects; but this view does not appear to be tenable, and for the following reasons:—

In addition to what has already been urged we must remark, that the suppurating bubo is no necessary part of the local sore (chancroid). A man may contract many ulcers on the penis which shall not infect his system, although unattended with any abscess in the groin.

Again, it has never been proved by experimental inoculation that the true syphilitic virus does give rise to such suppurating processes, or that, when these do occur in connexion with an undoubted chancre, the suppuration *prevents* constitutional manifestations. It may mitigate them perhaps, or postpone their appearance, by a depurative and derivative action through the skin (as in syphilisation); or an open groin may take on an unhealthy and chronic morbid action, by virtue of the constitutional syphilitic taint acquired through the chancre. This is only analogous to what is observed in other diseases—gout, for instance,—in which a gouty inflammation ensues in an injured part, with an abeyance or absence of the manifestations of all other gouty phenomena.

We may next turn to the points of similarity and contrast of the two diseases, and try if we can extract some evidence from these:—

Chancroid (*Soft, Suppurating, Local Process*).	*True Syphilis* (*Chancre*).
Most frequent seat on the genitals, rarely elsewhese, unless produced by artificial inoculation.	The primary lesion has its most frequent seat on the genitals, but it is not at all infrequently met with elsewhere.
Local in its action, and capable of producing pus that can generate the like, to almost any extent. Vehicle of contagion probably always one—fluid pus.	Followed by regular and well-defined manifestations of constitutional disease; always generating its like. Vehicles of contagion being many—various fluids obtained from the body of a person under its influence. Capable of transmission to the offspring.
One attack affords no protection whatever against subsequent ones.	A general or blood disease, it is allied to other diseases depending upon animal poisons, and, like these, occurring, as a rule, but once in the same subject; not auto-inoculable.
Exhibiting no period of incubation, and succeeding the inoculation or date of exposure to the morbific agent, within a few days or a week.	A true incubation; rarely, if ever, appearing within one week after inoculation, and generally considerably beyond it.
May precede, follow, or co-exist with gonorrhœa, true chancre, or syphilis.	May follow, or co-exist, in time and seat, with chancroid; but rarely is true chancre—when pronounced—followed by a subsequent one. Gonorrhœa may be present or not.
Capable of being produced in the lower animals by inoculation.	A disease of man. No positive evidence that constitutional syphilis has ever been produced through inoculation of animals.

True syphilis is a constitutional disease, resulting from the action of a specific agent on the body, and may be inherited or acquired. When the latter, it commences with some initial lesion of the integument or mucous membrane, together with an affection of the neighbouring lymphatic glands. This lesion follows a period of incubation, is characterised by a hardening, induration, or adhesive form of inflammation of one or other of these parts—the point of application of the virus, or the neighbouring glands—and is followed by a chain of morbid phenomena of various degrees of intensity, but, as a whole, sufficient to characterise the nature of the affection

(a) M. de Meric was one of the very first to advocate the duality of the poisons. See his Lettsomian Lectures, 1858.

and entitle it to an appellation and position separate and distinct from all and every other disease.

Let us examine some of these points separately. 1. A general or constitutional disease. We will set aside for the present the question, whether it be this from its earliest development—its initial lesion—as a mooted point, and speak of syphilis as a whole. Now, there is a superabundance of evidence, that the syphilitic element within the system is followed by certain manifestations as definite in type, as regular in order, as characteristic in appearance, and as specific in the nature of the morbid products and the tissues in which these are prone to be developed, as of any constitutional blood disease—such as the contagious exanthemata. Just as cases of variola and scarlatina may differ in point of form and severity, without at all departing from the pale of the definitions of these diseases, so may syphilis; and, like these disorders, it furnishes in its diseased products a contagious principle or virus, and one attack exerts a protective influence against the recurrence of another. Diday, as the result of his experience, has been struck with the regular evolution and succession of the syphilitic manifestations. Of 43 cases treated by the non-mercurial plan, all presented these phenomena; and in 17 of these the symptoms became so serious and threatening to the constitution as to demand, in his opinion, the use of mercury. Diday, like Mr. Egan, believes in the tendency of the disease to wear itself out in time by the unaided efforts of nature. Unfortunately, however, a spontaneous quiescence is not always to be regarded as the termination of the disorder, for there are numerous observations on record—and Mr. Hutchinson has published such lately—to show, that the phenomena of syphilis may recur after uncertain and very long periods of time. To talk of mercury or of any drug being the *cause* of *all* the constitutional symptoms—as some appear to do—is simply ridiculous, and is tantamount to denying that there is such a disease as syphilis at all.

2. Of the nature of the specific agent or virus we are in perfect ignorance, it never having been isolated, and we have, therefore, only to deduce its presence from the observed effects.

3. The primary lesion or chancre. This may commence as a papule, fissure, or erosion—very rarely, indeed, as a pustule like the chancroid. Far too much reliance has been placed upon the presence or absence of induration, and the consequence has been, that Practitioners, finding that constitutional syphilis did occasionally follow chancres without induration, have been led to discredit all the descriptions of true syphilis as arbitrary, false, or unstable. While induration is a very common and very valuable anatomical mark of the infecting or true chancre, it by no means follows that it should be its invariable accompaniment. If this hardening or sclerosis be absent in the chancre it will be present in the inguinal glands. It may appear in the cicatrix after healing of the chancre. *Some* induration will follow—almost invariably—after the application of the syphilitic virus, either at the point to which it has been applied, or in the neighbouring glands—one or both—before the system exhibits the constitutional phenomena. Such is the result of the enormous experience of Sigmund, and it is in accordance with our own. Mr. Lee has demonstrated that the infecting or true chancre may appear on the glans penis in the form of a circumscribed erosion or rawness, without induration, and without any, or scarcely any, ulceration or loss of substance. The absence of induration in sores on this part has been the subject of general observation, and it did not escape the sagacious eye of Hunter, who remarks on the relative absence of *adhesive* inflammation in the tissues composing the glans.

We are here met by a question which must have forced itself upon the attention of most practical men, and it is this:—Must the so-called secondary syphilis, when acquired, have invariably been preceded by a chancre of some kind? The answer to this cannot be given yet. All positive evidence (Langlebert, Rollet, and others) goes to prove, that acquired syphilis—whether it result from the inoculation of the fluids from primary or secondary syphilitic lesions, or from the blood of a syphilitic—invariably runs the same course, and presents essentially the same symptoms—viz., a chancre at the part inoculated. Such is the result of all inoculations which have been made the subject of scientific observation, and, considering the trifling nature of the primary sore in many cases,—a mere papule,—the absence of any inflammatory phenomena to direct the patient's attention to it, and the absence, often, of any loss of substance, or cicatrix to mark the seat of the lesion, it must be confessed that the positive evidence is direct and strong, while the negative is necessarily uncertain and unreliable. Still, the point is not yet quite definitely settled, and we shall recur to the subject when we consider the non-conformable type of cases.

Period of Incubation.—Is there any marked difference between the dates of the appearance, after exposure to contagion, of an ulcer which is *not*, and one which *is* to be followed by constitutional symptoms? Yes! Modern syphilographers have established this point. That the local symptoms followed an exposure after very different dates has long been an acknowledged fact. "I have known," says Hunter, "cases where a chancre has appeared twenty-four hours after the application of the matter; and others where it has been seven weeks;" and he adds two cases, one of seven weeks' interval and the other of two months after sexual connexion. In determining these dates it was of course necessary to select cases very carefully—cases which should afford direct evidence, and be free from all disturbing causes.

Now, there exists a remarkable uniformity in the repeated observations of many syphilographers, whether these resulted from direct experiment or not. Before the differences in the nature of the virus were ascertained we had been furnished with the results of three inoculations with the virus of true chancre, on persons suffering from the chancroid or soft sore. In Rollet's case the inoculation did not yield any results until the eighteenth day; and in the remaining two, one performed by Rinecker and the other by Gibert, an interval of twenty-four and twenty-five days took place.

Diday's inquiries in twenty-nine selected instances yielded an average interval of fourteen days; M. Chabalier, from ninety cases, found an average of from fifteen to eighteen days; and M. Clerc has reported several cases where the interval was thirty days. These form only a few of the many instances on record.

According to the observations of M. Langlebert, Diday, Rollet, and many others, a like interval—a period of incubation—precedes the appearance of any lesion, when the source of the virus has been from secondary lesions or the blood. The average time, in these cases, has been somewhat longer than when the virus has been obtained from a primary sore.

Having regard to these lengthened periods of interval, the conclusion of course suggested itself, that the true chancre was no mere local lesion—no result of a morbid nutrition in the tissues of the part—but something above this, and of a more general character—viz., the primary manifestation, and first link in that chain of constitutional phenomena which is so indicative of constitutional infection. Of this, however, more hereafter, as well as of those cases which may be termed non-conformable to this general law.

Vehicles or Media of Contagion.—Nothing serves to distinguish the local contagious ulcer of the genitals from true syphilis better than the observation of how important a part pus plays in the former process, both as a pathological product and as a vehicle of contagion.

The chancroid process is one of active inflammation; a pustule, and acute ulcer which discharges pus, are the products which characterise the action of the chancroidal virus. This pus is the medium of the virus; inoculation with it may give rise to an indefinite number of these ulcers on the same or on other and healthy persons. The purulent discharge from a soft ulcer, coming in contact with the neighbouring parts,

inoculates these, and gives rise to one of the signs of chancroid —viz., that it is very commonly multiple on the same subject. If this pus be taken up by, or intravasated in a lymphatic, as Virchow terms it, its globules become fixed at the nearest lymphatic gland, exactly as the materials used in tattooing are arrested by the nearest lymphatic glands, and a purulent bubo ensues, which, in fact, is a chancroid—a mere repetition of the ulcer on the penis. Thus, the pus globule (if Van Roosbrœck and Rollet's experiments be correct) is the vehicle, the lymphatic duct the road, and the gland the terminus of the poison. As the virus exerts its action within a limited sphere, so will that virus be only reproduced within the limits circumscribing that action. No one has ever pretended, that the blood or any other fluids, from the body of a person suffering from these ulcers only, can induce any specific action on inoculation. As far as the confrontations pursued on the Continent can be relied upon, they prove that it is pus from the ulcers of a person similarly affected that is the vehicle of contagion.

The true syphilitic virus acts very differently. It induces a sclerosis or hardening; acute inflammation, ulceration, and the production of pus stand in no necessary relation to the pathological process. It is not limited to one secretion as its vehicle, for the pus from a chancre and secondary lesion, the sero-epithelial secretions from the same, the blood of the syphilitic patient, the semen, and possibly other secretions, may, one and all, be the vehicles or media of contagion. This is just what might have been anticipated from a knowledge of the pathology of the two diseases,—one local, and affording no protection against repetition; the other truly constitutional, exerting a widely-diffused influence on the fluid and solid structures of the body, and protective against subsequent attacks.

THE WEEK.

IVES *v.* EDWARDS.

When will some Medical Practitioners learn that not merely Professional character but their own interest should prevent them quitting their legitimate position to undertake the office of agent or adviser in the pecuniary affairs of patients? We have frequently expressed a strong opinion on that mistaken estimate of their duties which permits Medical officers to "act" on behalf of railway companies in the settlement of claims for injury. Our verdict is no less decided against the course of interfering in a like manner on behalf of the injured person. The lawyer might as well be called in to set the broken limb or to prescribe for the injured brain. A very slight knowledge of the world teaches that whenever the Doctor does usurp the functions of the legal adviser he does it at his own peril. Suspicion is always ready, and, however pure his motives may be, they are certain to be questioned.

We have no intention of pronouncing definitely on the merits of the case of Ives *v.* Edwards. It seems to have been a tough morsel even for the Lord Chief Justice, and the fact that the verdict of the jury is left open to be appealed against either by plaintiff or defendant seems to prove that there was "a case" on both sides. Ives, the plaintiff, was an omnibus conductor, and a member of a club to which Dr. David Roberts was the Medical officer. Ives met with an accident on the Great Eastern line, and was in consequence under the Medical care of Dr. Roberts during November and December, 1863. He did not, however, "declare on his club," and according to Dr. Roberts's account, which was substantiated by the wording of a receipt given by Ives to the defendant Edwards, he did not employ Dr. Roberts on this occasion as a club Doctor, but as an ordinary Medical attendant. Dr. Roberts recommended to the plaintiff Ives the defendant Edwards, a commission agent, as a person who was likely to obtain for him compensation from the railway company. The Doctor also appears to have arranged with Edwards the percentage the latter was to receive on the sum paid by the company; and according to his (Dr. Roberts') evidence he was authorised by Ives to settle his claim and receive the money. Edwards arranged with the company that they should pay £210, which was to include costs and Medical expenses. Dr. Roberts received from Edwards £170 of this money, and paid to Ives £100, retaining £70 in payment of his bill (£80) for Professional attendance and medicine which he sent to Edwards, not to the plaintiff. The latter, however, must have been aware that something was paid to Dr. Roberts, as he signed a receipt "exclusive of Medical charges." The rest of the money was kept by Edwards, £10 being presented to him by Dr. Roberts as a bonus, and the remainder as commission. By the plaintiff it was contended that Dr. Roberts only attended him as his club Doctor, and that as the whole affair was a "juggle" between Dr. Roberts and Edwards, who divided the spoil, the latter ought to be made to repay to the plaintiff £100. Our space will not allow us to go into all the minutiæ of the case; it will suffice to say that the jury found that the plaintiff had employed the defendant, and had agreed to the commission settled by Dr. Roberts; they also found that Dr. Roberts had attended the plaintiff as his ordinary Medical adviser, and not as a club doctor, but they likewise found that his bill should have been £20 instead of £80, and their verdict was, that the defendant should refund to the plaintiff £50. The Judge ordered execution to be stayed that either party might appeal.

Now, we do not intend to criticise Dr. Roberts' scale of charges, nor even the singularly convenient principle on which he stated in his evidence he charged the railway company £80 for two months' attendance—"that those who can afford to pay should pay for those who can't." The judge hinted that the charges were extortionate and extravagant, but, in the absence of all information as to the amount of advice and medicine rendered, we do not feel ourselves called upon to endorse his Lordship's opinion. We are more concerned with the general aspect of the case. We hold that it was a mistake in judgment for Dr. Roberts to constitute himself, or to allow himself to be constituted, Ives's adviser in his pecuniary dealings with the company. Had he, when consulted, instead of recommending his patient and acquaintance, Edwards, simply advised Ives to put the affair in the hands of any respectable attorney, he would have been spared the whole of the annoyance which he must have suffered, and the suspicions which have attached to him. The railway company, it must be understood, paid the sum of £210 with the knowledge that Dr. Roberts' charges would be over £60. They, therefore, did not object to Dr. Roberts' fees, and he would not have been the loser, whoever had conducted the negotiation on the part of Ives. By recommending a particular agent, by himself receiving the money and paying the plaintiff, and by himself giving the defendant a bonus apart from his commission, Dr. Roberts has laid himself open to imputations of no enviable character, and he must not be surprised if, in this censorious world, people should be found who credit them.

"S. G. O." ON CHILDREN AND THEIR BRAINS.

We all relish so much the hearty sledge-hammer blows which the Hon. and Rev. S. G. Osborne, the well-known *Times'* correspondent, deals at various shams and abuses, that we need not flinch when our own turn comes. As our readers know very well, we do not hold our Profession up as absolutely infallible, and we esteem it a short-sighted and despicable policy to be always offering phrases of adulation and to shrink from honestly pointing out flaws—and Heaven knows there are enough of them—in our practice, or policy, or knowledge. "S. G. O.," however, has been writing on the education of children, and takes the opportunity of hitting at us when we don't deserve it. We really know more and do better than he gives us credit for.

"How often," he says, "are Medical men called in to advise in the cases of young children who are restless in their sleep, fearful to seek sleep, uneasy when left alone at night, lying watchful for fear they should be so left, with symptoms clearly

indicative of brains overworked, over excited. Nurses and mothers attribute the mischief to causes which are the effect, not the origin of it. Were the real truth known, it would be often found that the sufferers are victims to the folly that has day by day *exacted from the brain too much*, or to the wickedness which has worked upon it by *threats of some mysterious punishment;* very, very often, from allowing the patients to become absorbed in a *species of reading* which, keeping the mind on the strain, has wrought it up to an excitement from which it cannot calm down by any power of its own."

Here we notice three instruments of mischief—overwork, threats, and bad books. Respecting the last he describes certain terrifying stories, and says:—

"It struck me that such a book was enough to scare sleep from any young child allowed to pore over its pages; many such tales would make it subject to the dreams and screams which, terrifying the parents, invoke the M.D.; they then all say it is stomach, and proceed to inflict all kinds of intestinal torture to no purpose, for the child, confined to its bed, is given more and more of such intoxicating literature. Weakened by the senna and traditional grey powder, it gets worse and worse; the M.D. is puzzled, the mother alarmed; more advice is called in; the child is sent to the sea, there gets well under the more novel and natural fascination of shells and seaweed. Fortunately, the books are left behind; it is forbidden to read at all, but not because what it read was bad reading for it."

"The 'headaches' of early childhood," he continues, "are on the increase; Medical men are more than ever alive to the fact that children are over-excited in the nursery, and, but too often, too early and far too hard worked in the schoolroom; they are 'forced,' as gardeners would say, for too early exhibition in the drawing-room. They pass too much of their early life cramped into a sort of orderly, by drill-attained manners, utterly destructive of the sweetest, most healthy characteristics of true children."

And he winds up with the following "application," as the parsons say:—

"I wish the Physicians and Surgeons who have to prescribe for the headaches, sleeplessness, brain fevers, spine complaints, now so common in the nurseries and schoolrooms of the land, would boldly tell the parents the wholesome truths they could tell with such authority. *I know, however, this will not be the case; they will continue to be called in when the mischief is done, and must* rest content with the best endeavours to modify its consequences. They are fee'd as medicine-men, will not be hearkened to if they prescribe common-sense instead of *hyd. c. cretâ.* We shall, I fear, preserve our race of little ladies and gentlemen to the sacrifice of many a child life, or the rendering it miserable."

As we really like to be well spoken of when we deserve it, we will venture to tell "S. G. O."—1st. That we are alive to the danger of overworking children; and that there is no house we wot of in which the Doctor is not considered the sworn foe of the governess. 2. As to the mischief done by diabolical threats, we do not doubt it; but can only say, that where such a thing is possible, the mother scarcely knows or sees so much of her children as she ought; that is no fault of ours. 3. The same with regard to bad books. But with regard to the charge of treating all nervous disorders of children as "stomach," "S. G. O." is a little behind the time; whilst, for the effect which brain disturbance has in spoiling blood and increasing the quantity of *effete* and excrementitious matter, we should like to refer him to the writings of the Rev. Professor S. Haughton, of Dublin, who will set him an example of a way of dealing with matters of fact which many clergymen might imitate very fruitfully. Lastly, "S. G. O." does not note the fact, that all the evils he describes are due mainly to the original constitution of children, and probably to the state of nervous system of the parents. There are some children who won't work a bit, won't read, and can't be frightened. Others there are, pale, with large foreheads, puny limbs, and precociously intelligent — preternaturally pious, also — who devour every unwholesome fiction, and lie awake with imaginary terrors. These children are made worse by excitement, but the disease *nascitur non fit.* Parents should spend more in getting pure air for their children, instead of laying up a few beggarly hundreds, and should have faith in the power of honest, healthy young men to find an honest living somewhere.

SMITH'S VISITING LIST.

We are reminded of the approach of Christmas by the issue of an edition of "Smith's Physician's, Surgeon's, and General Practitioner's Visiting-list, Diary, Almanack, and Book of Engagements for 1865." We have used this "List" for many years, and have every reason to be satisfied with it. It is an immense improvement on the daily slip of paper in vogue before the first issue of this "List" nineteen years ago.

FROM ABROAD: DISCUSSION ON HOSPITAL HYGIENICS, CONCLUDED —MORTALITY AT THE PARIS MATERNITY.

The discussion on Hospital hygiene, which has been continued for more than two months at the Paris Surgical Society, has now been terminated by the adoption of the following resolutions:—

"The Surgical Society of Paris, desirous of contributing, to the extent of its power, to protect the practice of the art of Surgery from the fatal influence of nosocomial complications, and to relieve science in future from its responsibility in the matter, has deemed it opportune, on the occasion of the projected reconstruction of the Hôtel-Dieu, to call to mind, or establish, the following principles:—1. A Hospital should be located in an open spot upon a declivity. The space occupied by it should be of large size, fifty square metres per patient constituting a minimum, which should be exceeded as far as possible, and which should increase progressively with the number of patients. 2. The atmosphere of a Hospital will be purer in proportion to its distance from crowded localities. In the middle of towns, Hospitals should only be kept up of limited size for the admission of urgent cases, and for the purposes of teaching. This would prove not only a sanitary, but an economical measure, enabling great towns, like Paris, to erect Hospitals on very large and inexpensive sites. 3. Good hygienic conditions are easily attainable in Hospitals of from 200 to 250 beds, while it becomes almost impossible to realise them in large towns if double these numbers be exceeded. The expenses of all kinds are not proportionally greater in these than in the populous Hospitals. 4. The elements of the atmosphere commingling especially in the horizontal direction, we must obviate by additional space the effects of contact and proximity constituting overcrowding, and which are propagated from patient to patient, from ward to ward, from building to building. 5. It is not only by increasing the cubic space allowed to each patient, but especially by increasing the superficial space, at present so insufficient in our Hospitals, that we shall be able to struggle effectually against contagious influences. For similar reasons, the stories of a Hospital should not be numerous, each of these engendering a more or less vitiated layer of air. According to rigorous hygienic requirements there should never be superposed more than two ranges of patients. 6. It would be an illusion to believe that a large supply of air within the wards will compensate for a want of space and external aëration, and that artificial ventilation can supply the place of the preceding conditions. Nothing will serve as a substitute for an insufficiency or absence of natural ventilation. 7. The buildings constituting the Hospital should be completely isolated, having the same aspect, and freely exposed to the rays of the sun, and to the action of wind and rain. They should be disposed in a straight line, or in parallel lines separated by long intervals of from 80 to 100 metres, so that an effectual separation and a free and easy external ventilation may be obtained. 8. Small wards of from fifteen to twenty beds are easily taken care of; the patients are less in each other's way; the chances of direct contagion are diminished; and all impurities are more rapidly removeable. Such should be provided for ordinary patients, independently of the special arrangements made for certain categories of disease requiring still greater space or isolation in separate chambers. 9. The furniture of the wards should not obstruct the circulation of air; and the Medical officers should possess the right of removing the curtains of the bed if they deemed this desirable. 10. The wards should be separated from each other by landings and other rooms; and it would be of advantage that one of these should be used for the reception, during the day and at meals, of all patients able to get up, which would lead to a daily, though incomplete, evacuation of the wards. 11. The periodical and regular evacuation of the wards, and their remaining unoccupied during several months in the year, have been attended with

such advantages in the French Military Hospitals and some foreign Hospitals, that the general adoption of this measure is desirable, and imperiously so during the prevalence of an epidemic. 12. Everything should be so disposed that all fetid and infecting matters, dejections, old dressings, foul water, etc., may be rapidly destroyed or removed, and never allowed to remain within or in the proximity of wards occupied by patients, or to give rise to any appreciable emanation.

"Enlightened by a prolonged discussion, in which many of its members have taken part, the Society would regret if, in the projected erection of the Hôtel-Dieu, the Administration misunderstood or neglected some of these principles. It believes that neither the wants of the population nor those of Medical instruction require a Hospital of 600 beds located in the city; and that such a Hospital would be in a bad condition with respect to site, space, number of beds, disposition of its buildings, and ventilation. It is desirous that its views may be taken into consideration, and that they may contribute to the adoption of a plan conformable with the fundamental exigencies of Hospital hygienics."

In relation to the above subject, we may notice a discussion which took place at a recent meeting of the Paris Hospital Society upon the mortality observed at the Maternité. M. Guyot stated that having replaced M. Hevieux there during three months, he found that the mortality exceeded all that he could have imagined; of 492 women who entered for delivery between July 15 and October 1, 91 died; and of 174 who entered the Infirmary as patients 82 died. During the first fortnight of October, 15 other deaths had to be added to this frightful list, and even this did not represent the entire number of women who had contracted the germs of death in this establishment, for a certain number left it in a desperate state to die either at other Hospitals or at home. It was from purulent infection rather than metro-peritonitis that these unfortunate women succumbed. In M. Guyot's opinion the establishment ought to be suppressed, especially as the conditions of the lying-in wards of the various Paris Hospitals are in a far more satisfactory state. The mortality observed at the Maternité was not the result of an epidemic, but the ordinary state of affairs there. M. Gallard observed that the Paris Maternité did not stand alone in this matter, for at the Vienna Maternité and in all establishments in which agglomerations of lying-in women exist puerperal fever is endemic. M. Hérard considered the question of the Maternité a far more urgent one than that of the Hôtel-Dieu; it is long since that Physicians have denounced this fatal establishment, and as far back as 1832, M. Cruveilhier declared that the cholera epidemic did not exert more ravages than did puerperal fever at the Maternité. M. Gueneau de Mussy felt greatly pleased at the initiative taken by M. Guyot, for it is a question with which he has occupied himself during the last twenty years. The terrible numbers cited by M. Guyot represent, in fact, but a part of the truth, for many women leave the Maternité to die, and many such he had received into his own Hospital. Among conditions of insalubrity particularly to be stigmatised at the Maternité, is the location of the theatre for the autopsies close alongside the Infirmary. MM. Woillez and Blache, as Physicians of the Cochin Hospital, have also frequently received patients leaving the Maternité only to die. At the Cochin a pavillion is now erecting for lying-in women in which all the best hygienic conditions will be secured. M. Chauffard observed that not only the superior condition of foreign Maternities put that of Paris to shame, but also the relative mortality of the other French Maternities. M. Barthez believed that the only thing to be done with the Paris Maternité was to sweep it away. He related an anecdote of the elder Marjolin, who, sent to inspect the Rouen Maternity, for which ameliorations calculated to diminish the mortality that prevailed there had long been recommended in vain, contented himself with these few words,—"I have a favourite bitch, and if she ever fell with pup I certainly would not send her to deposit them in your establishment." The *mot* had its effect, and the ameliorations were promptly executed. The Society appointed a committee to report upon the matter.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF CAMBRIDGE.

(Concluded from page 632.)

ADDENBROOKE'S HOSPITAL—*Continued.*

Mortality of the Hospital.

By Dr. Farr's method of calculation, the mortality of Addenbrooke's Hospital is placed at 50·00 per cent., or 16 per cent. lower than that of the Sussex County Hospital, and 14 per cent. higher than the Hospitals of Stafford and Norwich. On the ordinary method of calculation, in which the number of deaths occurring in one year are placed side by side with the number of patients admitted, the mortality may be taken at about 6 per cent.

Administration of Chloroform.

The administration of chloroform is in the hands of the House-Surgeon. The chloroform is now administered by the ingenious method first proposed by Dr. Skinner, of Liverpool. The method consists in extending over the mouth and nostrils of the patient a piece of porous woollen stretched over a light wire framework. The chloroform is dropped, drop by drop, from a bottle furnished with a fine escape-tube over the surface of the woollen externally, and the patient inhales the vapour admixed with a large quantity of air. I have myself tried this same plan several times, and like it much. The only objection to it is that narcotisation is not perfectly induced without the lapse of considerable time. No death from chloroform has occurred as yet in Addenbrooke's Hospital.

Points of Practice.

The most interesting point of practice I have to record has reference to the treatment of wounds after operation, by Dr. Humphry. He takes special care to leave such wounds quite uncovered. The edges of the wounds are approximated by means of sutures, but no plaster, bandage, wet or dry lint, or application of any kind is allowed. A poultice or warm water may be applied in a few days, but at first nothing is done. The wounds thus treated do well, and the pain of repeated dressings is spared the patient—a very important practical fact. The method contrasts very strikingly with that so very generally pursued in other Hospitals, and deserves, as it seems to me, an extended trial.

THE NEW ADDENBROOKE'S HOSPITAL.

Through the kindness of Mr. Wallis, the House-Surgeon, I have received, just as this report was being closed, the following particulars in respect to the re-modelled Hospital. The account was drawn up by Mr. Renshaw, with Medical details added by Mr. Wallis:—

"The basement floor consists of kitchen, scullery, pantry, beer and wine cellars, bath-room, coal cellars, furnace rooms for heating apparatus, etc., etc.

On the ground floor the north wing has a ward 60 feet long, 28 wide (in the clear), by a height of 13 feet 6 inches between floor and ceiling, which contains beds for fifteen *male* patients, at the back of which there are a bath-room, lavatory, etc., with an additional length at the end of the ward next the centre of thirty feet more, which has a room for nurse, under-porter, cold and hot water baths, hot chambers or Turkish baths, sulphur, vapour-room, etc.

The centre part, 102 feet long, consists of entrance hall, porter's day and sleeping room, open colonnades each side of the entrance, two flights of stone stairs, matron's living and sleeping rooms, and stores, servants' hall, and House-Surgeon's sitting-room and bed-room.

The south wing consists of an out-patients' waiting-room, 46 feet by 28 feet, with three Physician's and Surgeon's rooms, making a total length as the north wing of 90 feet 6 inches, with, at the end, lavatories, etc., for patients.

On the first floor the north wing has a ward 75 feet 6 inches by 28 feet 9 inches, and 16 feet between floor and ceiling, which contains beds for nineteen *male* patients, with an additional small ward, 14 feet by 9 feet; also nurses' rooms, scullery, bath-room, lavatory, etc., over those of the ward underneath (for Medical cases).

The centre part of first floor consists of a convalescent room for *male* patients, 24 feet by 17 feet 6 inches, 16 feet high in front, with open colonnades (one on each side for male and female patients); the other parts consist of the old board-room,

small wards for male and female patients, staircase, store-closet, etc.

The south wing has a ward 75 feet 6 inches by 28 feet 9 inches, for nineteen *female* patients; also room for nurse, and scullery at the end of ditto, with lavatory, bath-room, and other accommodation over those of the ground floor.

On the second floor the south wing has a ward for twenty-three Medical and Surgical *male* patients, 91 feet long, 28 feet 9 inches wide, and 16 feet from floor to ceiling, with bath-room, lavatory, etc., as below.

The centre part has a convalescent room for *females*, 24 feet 6 inches by 17 feet 6 inches, the same height, with open colonnades on each side, 32 feet by 7 feet 6 inches wide, for exercise for patients; an operating-room, well lighted, 24 feet 6 inches by 20 feet; two wards for four beds each, 27 feet 6 inches by 21 feet 6 inches; a bath-room, lavatories, scullery, etc.

The north wing consists of a ward 91 feet long, 28 feet 9 inches wide, 16 feet high, for twenty-three *females*, with lavatories, bath-room, as for north wing (Surgical).

The part now occupied (Maynard's Ward), when altered for fever wards, will contain eight beds, in which, if required, ten more can be made up, making a total of 117 beds, exclusive of the ten last mentioned.

The whole length of the front is 290 feet; with the addition of the ward offices which stand back, it would be 305 feet; and the height from the ground to top of parapet is 53 feet 6 inches.

These dimensions will show that the Hospital will be upon a grand scale.

The building is constructed of white brick relieved with stone, terra cotta, and coloured bricks; the lower story looks plain and substantial, but the upper story is particularly pleasing and ornate; the style adopted is Italian freely treated, so as to suit the local materials, and to enable them to be employed with economy."

THE CAMBRIDGESHIRE ASYLUM FOR LUNATICS.

This house was first opened for patients in November, 1858. It is situated on some rising ground near the village of Cherry Hinton, but in the parish of Fulbourn, and is three miles from Cambridge. The Asylum property includes about fifty-eight acres of land, thirty-two of which are devoted to the cultivation of cereals and root crops, twenty are under spade husbandry as garden, and six are occupied by buildings and airing-courts. The Asylum is built of white brick faced with red in the Elizabethan style. It has a ground floor and a floor above, a small part having two stories above the ground floor. The ground floor consists of day rooms, and the upper floors of bedrooms. The building is only one room deep, and faces due south.

Ventilation and Warming.

The windows of the Asylum open in both directions, to ensure a current of air through the house from north to south. The ventilation is further secured by air shafts built into the walls, and terminating in the roof, which carry up the impure air from every room. Pure air is admitted from without by shafts, which enter the rooms below, first passing into chambers behind the stoves where it is warmed. They can be opened and closed at pleasure. The building is warmed by open fires alone, which have been found sufficient, the temperature being regularly noted.

The house was built for 125 patients of each sex, but it has been since found there is proper space for 150; to relieve the day rooms, however, and to afford isolated wards for the treatment of special cases, a small wing is about to be added to each extremity.

There has been no instance of contagious epidemic or avoidable disorder in the house since it was opened. The principal cause of death is general paralysis.

Water Supply.

The water supply is abundant, and is derived from the neighbouring springs at Cherry Hinton, which are worked by a Company, and also supply the town of Cambridge. The water is very pure.

Diet.

The dietary is rendered in the subjoined table, but the vegetables are understated, as they are given often *ad libitum*. The daily average weight of food is as follows:—

	For Males.	For Females.
	oz.	oz.
Meat free from bone	$5\frac{2}{7}$	$4\frac{6}{7}$
Bread	$13\frac{1}{2}$	$11\frac{1}{2}$
Suet pudding or pie-crust	4	3
Vegetables	12	12
Butter	$\frac{1}{2}$	$\frac{1}{2}$
Non-workers' solids	$35\frac{2}{7}$	$31\frac{6}{7}$
Bread	3	3
Cheese	1	1
Workers' solids	$39\frac{2}{7}$	$35\frac{6}{7}$

Ordinary Diet Table.

	BREAKFAST.				DINNER.																			SUPPER.					
	Males.		Females.		Males.										Females.									Males.			Females.		
	Cocoa.	Bread.	Cocoa.	Bread.	Boiled beef or pork, uncooked, free from bone.	Boiled mutton, uncooked, free from bone.	Beef, uncooked, free from bone, seasoned, in a pie.		Beef, uncooked, free from bone, seasoned, in a stew.		Suet dumplings.	Vegetables.	Bread.	Beer.	Boiled beef or pork, uncooked, free from bone.	Boiled mutton, uncooked, free from bone.	Beef, uncooked, free from bone, seasoned, in a pie.		Beef, uncooked, free from bone, seasoned, in a stew.		Suet dumplings.	Vegetables.	Bread.	Beer.	Bread.	Butter.	Tea.	Bread.	Butter.	Tea.
							Beef.	Pastry.	Beef.	Potatoes.								Beef.	Pastry.	Beef.	Potatoes.									
	pts	ozs	pts	ozs	ozs	ozs	ozs	ozs	ozs	ozs	ozs	ozs	ozs	pts	ozs	ozs	ozs	ozs	ozs	ozs	ozs	ozs	ozs	pts	ozs	ozs	pts	ozs	ozs	pts
Sunday ..	1	6	1	5	..	7	..	..	..	..	..	12	3	$\frac{3}{4}$	..	6	..	..	..	..	..	9	3	$\frac{3}{4}$	6	$\frac{1}{2}$	1	5		1
Monday ..	1	6	1	5	..	..	..	..	4	6	4	..	..	$\frac{1}{2}$	..	..	..	..	4	6	4	..	..	$\frac{1}{2}$	6	$\frac{1}{2}$	1	5	$\frac{1}{2}$	1
Tuesday ..	1	6	1	5	..	..	4	8	..	..	..	6	..	$\frac{1}{2}$	..	..	4	6	..	..	..	6	..	$\frac{1}{3}$	6	$\frac{1}{2}$	1	5	$\frac{1}{2}$	1
Wednesday	1	6	1	5	7	..	..	..	..	..	..	12	3	$\frac{1}{2}$	6	..	..	..	..	..	..	9	3	$\frac{1}{2}$	6	$\frac{1}{2}$	1	5	$\frac{1}{2}$	1
Thursday	1	6	1	5	..	..	..	..	4	6	4	..	.	$\frac{1}{2}$	..	..	..	..	..	4	6	4	..	..	$\frac{1}{2}$	6	$\frac{1}{2}$	1	5	$\frac{1}{2}$	1
Friday	1	6	1	5	7	..	..	..	..	..	..	12	3	$\frac{1}{2}$	6	..	..	..	..	..	..	9	3	$\frac{1}{2}$	6	$\frac{1}{2}$	1	5	$\frac{1}{2}$	1
Saturday ..	1	6	1	5	..	..	4	8	..	..	..	6	..	$\frac{1}{2}$	..	..	4	6	..	..	.	6	..	$\frac{1}{4}$	6	$\frac{1}{2}$	1	5	$\frac{1}{2}$	1
Totals..	7	42	7	35	14	7	8	16	8	12	8	48	9	$4\frac{1}{2}$	12	6	8	12	8	12	8	39	9	$3\frac{1}{4}$	42	$3\frac{1}{2}$	7	35	$3\frac{1}{2}$	7

The vegetables are chiefly potatoes, with cabbage, cauliflower, green peas, carrots, French and broad beans, and parsnips; rice is occasionally substituted for fresh vegetables. In the form of liquids, tea and cocoa, with half a pint of milk, is allowed daily to each patient, and beer is given in the proportion of three quarters of a pint to men and half a pint to women daily. The workers have an extra half pint of beer.

Amusements.

Amusements are carried out in the Asylum with great spirit: there is a dance weekly, a harvest supper in the autumn, and a ball at Christmas. Occasional theatricals, daily walks, cricket nightly in the summer, bowls, indoor games, and holidays make up the pleasure work of the inmates, and serve to take off much of the unhappiness of their lives.

Points of Treatment.

As to treatment, opium, digitalis, iodide of potassium, and alcoholic stimulants are freely used; and packing in the wet sheet is employed as a sedative. Extract of Indian hemp is found useful, and podophillin is considered the best purgative in the habitual constipation of the insane. The plan of sup-

porting the patients is preferred to that of lowering them; and kindness is a first principle in treatment. Dr. Lawrence, the accomplished Superintendent, has tried all the new remedies for epilepsy as they have appeared, but without success. The diarrhœa of advanced general palsy is no longer treated as a malady to be stopped by astringents, but instead chlorate of potash, and vegetable charcoal in syrup are prescribed with benefit. Of course there is no system restraint.

Admissions, Deaths, and Recoveries.

Total Number under Treatment in Three Years.

	Males.	Females.	Total.
1861 . .	146	177	323
1862 . .	156	179	335
1863 . .	168	188	356

Admissions.

	Males.	Females.	Total.
1861 . .	59	67	126
1862 . .	47	44	91
1863 . .	45	46	91

Deaths.

	Males.	Females.	Total.
1861 . .	17	11	28
1862 . .	15	12	27
1863 . .	14	17	31 or 8·7 on the total number resident.

Recoveries.

	Males.	Females.	Total.
1861 . .	14	29	43 or 36·5 per cent.
1862 . .	14	22	36 ,, 39·5 ,,
1863 . .	16	18	34 ,, 41·7 ,,

calculated on admissions.

Cost of Patients per Head.

Average weekly cost of pauper patients to the unions in Cambridgeshire county:—

1861, 10s. 7½d. each. 1862, 9s. 10½d. 1863, 9s. 4½d.

The Commissioners in Lunacy have uniformly spoken well of the Asylum, and on their last visit, April 27, 1864, they made the following remarks in the course of their official report:—"We found all the inmates in a very quiet, comfortable state. There was no one secluded, and, judging from the entries in the Medical journal, it seems that seclusion is but sparingly used, and mechanical restraint never resorted to. The occupations and amusements of the patients have been described in former entries, and we find that there has been no change in the arrangements. We must not, however, omit to notice that the schools recently established have been carried on very successfully, that all clothes, shoes, etc., are made on the premises, and that the land is cultivated very profitably. Generally, the patients seemed most comfortable and contented, and their attendants and nurses struck us as being of a respectable class, and very kind and considerate in their conduct towards them.

"W. G. Campbell and S. Gaskell, Commissioners in Lunacy."

The Asylum is under the superintendence of Dr. George William Lawrence, of whose knowledge and skill in the management of the insane it were difficult to speak in terms of sufficient commendation. Dr. Mackenzie Bacon is the able Assistant-Superintendent.

PAROCHIAL MEDICAL PRACTICE.

The Parochial Medical practice of Cambridge is divided into three districts, the Union Workhouse being a separate office. The districts and officers and salaries are given below:

District.	Medical Officer.	Salary.
No. 1 . .	J. T. Beck, Esq.	£60 per annum.
No. 2 . .	R. Ransom, Esq.	60 ,,
No. 3 . .	T. Green, Esq.	60 ,,
Workhouse .	C. Newby, Esq.	60 ,,

The sum of £120 8s. is allowed on an average annually as extra expense.

SANITARY CONDITION OF CAMBRIDGE.

Population.

The population of Cambridge has been steadily increasing during the present century. In the year 1801, the population was 10,034. In this was included 811 members of the University. At the last census the returns gave a population of 26,361, so that the number of residents had increased considerably more than half in the course of the century. The numbers had, however, somewhat declined from 1851 to 1861.

Value of Life.

Average Annual Rate of Mortality in Cambridge from all Causes, at Different Ages, to 100 *Living, during the Ten Years* 1851-60.

	Males.	Females.
All ages	2·221	1·861
Under five	6·781	5·896
Five to ten	·925	·734
Ten to fifteen	·465	·371
Fifteen to twenty . . .	·758	·694
Twenty to twenty-five . .	·795	·686
Twenty-five to thirty-five . .	1·199	·816
Thirty-five to forty-five . .	1·650	1·309
Forty-five to fifty-five . .	2·231	1·441
Fifty-five to sixty-five . .	3·383	2·303
Sixty-five to seventy-five . .	5·590	5·161
Seventy-five to eighty-five . .	14·952	13·298
Eighty-five and upwards . .	33·636	30·370

Average Annual Mortality in Cambridge from Different Causes, to 100 *Living, from* 1851 *to* 1860.

	Males.	Females.
All causes	2·221	1·861
Typhus	·079	·084
Cholera, diarrhœa, and dysentery	·086	·079
Other zymotic diseases . .	·255	·209
Cancer	·038	·074
Phthisis	·414	·280
Scrofula, tabes mesenterica, and hydrocephalus . . .	·114	·076
Disease of brain . . .	·211	·175
Disease of heart and dropsy .	·127	·126
Disease of lungs . . .	·288	·244
Diseases of stomach and liver .	·110	·101
Diseases of kidneys . . .	·046	·015
Violent deaths	·077	·038
Other causes	·376	·380

Water Supply.

The water supply of Cambridge is derived from four sources. From very numerous wells, from a stream brought into the town and allowed to run through it in the open gutters, and from a water company.

The wells in general supply excellent water for drinking purposes. The stream rises readily from the gravel on which nearly the whole town stands. This water contains much carbonate and sulphate of lime, and is therefore not good for cooking and washing.

The stream was brought into the town about 250 years ago at the joint expense of the University and townsfolk. One of those who most contributed towards the expense, and who left an estate for the keeping up the banks, was Hobson, the London carrier, whose epitaph was written by Milton, and whose peculiar practice as a livery stable keeper gave rise to the proverbial expression of "Hobson's choice." This stream supplies swimming baths to Pembroke and Christ's Colleges, and runs in sparkling streamlets through the two principal streets, and furnishes a fountain in the market-place, but at the present time serves no more useful purpose than keeping up a constant flow in the sewers, into which it ultimately passes.

About fourteen years ago a private water company was formed by members of the University and townsfolk, and this supplies water of good quality, containing very little of the salts of lime, and the supply is unintermitting—constant at all hours. This water is pumped up from a clay basin about a mile and half from Cambridge to a reservoir at the top of a chalk hill at Cherry Hinton, and thence flows in pipes two and half miles to the town. The source of the water is now a flat of cultivated ground, but was formerly a swamp, or, perhaps, a lake; for one of the four Roman roads which meet at Cambridge was diverted from its straight course when it reached this locality, and made a detour in approaching the town.

Paving, Drainage, and Sewerage.

The town of Cambridge was paved in the reign of Henry VIII., an act having been passed to secure the carrying out of this improvement. Since then one, and I think two special acts have been passed to effect the same object, and at this time the streets are specially clean and even. Along the pavements in various parts free and brisk currents of water flow in channels which are open, but are well constructed, and the water these convey looks clear and bright even in the

middle of summer. The drainage of the town is considered as fairly carried out, the greater part of the sewage being discharged into the river—the Cam—below the town. Some of the sewage, however, still finds its way into cesspools. The sewage of the town is not as yet utilised, but the question of utilisation is at present exciting much interest in the locality.

Other Sanitary and Social Facts.

Prostitution is theoretically under great control in Cambridge, the University law in reference to the suppression of open prostitution being all that the most rigid law-maker could desire. It is notorious, however, that prostitution is very rife, and I learned that not less than 200 women of loose character, and who *sub rosâ* pursue their peculiar calling, were known to the authorities. The prevalence of venereal diseases is very great, and I received on an authority I cannot doubt that very few of the young men who go through University life escape one or other forms of the disease. This is one of the sad reflections that casts itself over the University life, and it is a point of the greatest difficulty to know how to meet the evil. The present system at Cambridge, in which the presence of vice is concealed by the suppression of its appearance, certainly does not give much evidence of success, nor offer inducements to our legislators to extend that particular plan to the country at large.

The dwellings of the poor in the borough of Cambridge are less miserable than in most towns, and overcrowding is not so marked as formerly. But the agricultural poor around the town are still housed in those low, wretched, thatched huts which existed in Britain when Virgil was singing, and have undergone from his time to ours but little architectural advancement. The diet of the poorer classes, especially of the females, is indifferent: bread-and-butter and tea are the staple articles with them; and the appearance of the poor, consequently, is that of an anæmic, heavy, unnourished class.

Cambridge has not been subjected severely to epidemic disorders. In the epidemic of 1848 there were five fatal cases of cholera and twenty-nine cases of diarrhœa. The first case was imported; it occurred in the parish of St. Andrew's, in a boothkeeper at fairs: two of the other cases out of the five were in the same parish. The epidemic seems to have entered the town, but not to have spread. This is what would naturally follow from the condition of the town in respect to its water supply and drainage, the water supply being so obtained that the admixture of fœcal matter with drinking water is necessarily most limited. In 1854 there were three deaths from cholera and eighteen from diarrhœa. Dr. Humphry sums up the condition of Cambridge in respect to its healthiness in the following terms:—

"Though not much above the level of the sea, and, therefore, deficient in the bracing influences which belong to the atmosphere at elevated parts, the town of Cambridge has not the disadvantage of being in a hollow or basin, but is on a nearly flat surface or plain; and though the atmosphere is rather moister, and perhaps more foggy, than at some other parts of the country, yet the rainfall is comparatively small (about twenty inches in the year), and the ground, of porous gravelly nature, permits the wet quickly to drain away, so that the surface is very dry. The drainage, artificial as well as natural, is good; and the place is by no means unhealthy. It has enjoyed a remarkable exemption from serious epidemics for many years. Neither cholera no diphtheria ever established themselves here; fever is not common; and the visitations of scarlet fever, measles, etc., are less severe than in most other places. Diseases are not, for the most part, of an acute type; and ague has been almost exterminated by the drainage of the surrounding districts."

CONCLUDING NOTE.

The Medical scholar who shall visit Cambridge may expect to find a large number of subjects of interest other than I have been able to describe in this outline. The Botanic Garden, the Fitzwilliam Museum, and the philosophy schools will be sure to attract his attention. Above all, there is for him the Woodwardian Museum, a museum founded by Dr. John Woodward, a member of our own Profession, "to promote knowledge of mineralogy," together with a professorship, which has for long years past been filled by one of the most genial and learned men of this age, Professor Sedgewick.

I can enter but briefly into the debated question of the value of University education absolutely, or of Cambridge as a school for our aspirants for Medical honours. The exclusive system does not seem to me to be one that can ultimately prevail, although, forsooth, it must take a long time to die. In favour of it the advantages assigned are the following, special reference being made of course to Cambridge:—

1. That in the University a good basis of general education is secured, the student being required to pass one or more of the general University examinations, and having the further advantage of going out, if he think well, in the Honour Triposses in Classics and Mathematics.

2. The student in the course of his studies is associated in the College and in the University with students intended for the church, the bar, and other walks in life, thus having the opportunity of forming friendships and acquaintances which may operate beneficially on his character and be of service to him in after years.

3. Cambridge affords good opportunities for the commencement of Medical study. Such study may be divided into two parts, usually pursued in two periods. The first includes the subjects embraced in the term "Natural Science," viz., botany, chemistry, comparative anatomy, and physiology. These are studied by attendance on the lectures of the respective professors, and by working in the laboratories and museums which have recently been erected, and are spacious and convenient. There are also private tutors in Natural Science, who have private laboratories and dissecting rooms, to whose assistance several of the students resort. Some of the students are content with obtaining sufficient knowledge in these subjects to pass the necessary examinations, while others pursue them further, and go out in the Natural Science tripos, which, if they distinguish themselves, opens an avenue to scholarships, fellowships, or other remuneration. For the pursuit of the second or more special part of Medical study there are lectures on human anatomy, with a museum and opportunities of dissection (the latter having been much increased of late), lectures on pathology and the practice of physic, on Surgery and Materia Medica, and the practice of Addenbrooke's Hospital. In the latter clinical lectures are regularly given, and much attention is paid to clinical instruction by the Physicians and Surgeons. Clinical instruction is specially encouraged, and forms perhaps the most valuable part of Medical Education in Cambridge, fitting the student for the practical examination which he has to undergo at the bedside before being admitted to the degree of Bachelor of Medicine or Master in Surgery.

It is not intended or wished to complete Medical education in Cambridge. The two or three last years, after the rudiments have been mastered, are to be spent in a wider field, in London, Edinburgh, or elsewhere.

The educational course at Cambridge, being somewhat more extended, and, therefore, more expensive, than the ordinary ones, is most suited to those who are not anxious to press hurriedly into the Profession, who, whether purposing to practise as Physicians, Surgeons, or General Practitioners, aspire to the best positions in the Profession, and whose industry, combined with fair intelligence, warrants their entertaining such hopes. Those who have been well grounded, and have employed their time well at school, may reasonably expect to defray part of their expenses by obtaining some of the numerous scholarships, ranging from £40 to £80 a-year, which are given by the several Colleges. Hitherto our Profession has not been sufficiently alive to these, though it is now beginning to have an eye to them. But even if these are not obtained, the entire money invested in a University education will ever be found to bring a good return to those who have made the right use of it.

Medical Coroner for the Leominster Division of Herefordshire.—The following circular has been issued to the members of the Herefordshire Medical Association:—"Dear Sir,—As a vacancy has occurred in the office of Coroner to the Leominster division of this County, I shall probably offer myself as a candidate. The very valuable services of Dr. Lankester and others who have so much advanced Medical science and statistics by their researches—whilst, at the same time, the special duties of their office have been performed with acknowledged efficiency—have apparently excited general interest, and a considerable portion of the public seems convinced of the advantages accruing from the appointment of Medical Coroners. If favoured with your support, it will be my earnest study to prove myself worthy of your confidence. —I am, Dear Sir, yours faithfully, George Kemp, M.D. Cantab., Fellow of the Cambridge Philosophical Society. Hereford, December 12, 1864."

REVIEWS.

Stimulants and Narcotics: their Mutual Relations. With Special Researches on the Action of Alcohol, Æther, and Chloroform on the Vital Organism. By F. E. Ainstie, M.D., M.R.C.P., Assistant-Physician to Westminster Hospital, Lecturer on Materia Medica and Therapeutics in the School, and formerly Lecturer on Toxicology. London: Macmillan and Co. 1864. Pp. 489.

While the science and practice of Medicine have of late been making rapid progress, every one must have felt that the science of Therapeutics has lagged sadly behind—behind both the science of Medicine and Practical Therapeutics. Dr. Ainstie, having had to teach "Materia Medica and Therapeutics," has felt this with double force, and has had the courage and energy to set to work and try to, at the least, initiate a better state of things.

"It has appeared to me," he says, "in studying the various formal essays upon therapeutics which have appeared of late years, that a certain timidity has, in many instances, induced their authors to cling to the use of phrases which represent physiological theories now virtually dead; and that the use of these phrases has injuriously affected the value of our systematic teaching on the subject of the action of medicines, leading energetic practical men to regard it as somewhat pedantic and unreal. I cannot but think that by bringing the light of recent clinical observation and physiological experiment to bear on our therapeutic classifications, we may effect some real improvement in the latter;" and in the volume before us he gives us the results of his experience and researches on the actions and properties of three very important classes of agents, the stimulants, narcotics, and, especially, the narcotic-stimulants. His three first chapters are occupied with a "History," a "Criticism," and "Suggestions for the Reconstruction" of the "Doctrine of Stimulus." From the history of the doctrine—from Plato downwards—he concludes that we owe our ideas of stimulation, excitability, irritability, etc., to a theory that there resides in the tissues of the body "some essence which, although not exactly mind, possessed at least passions and motions, and volition, and to which stimulants and irritants appealed," and that we still write and speak "as if we believed that a demon or demons resided in our stomach, our nerves, or our ultimate cells, whom we could propitiate with cordials, soothe with anodynes, excite with stimulants, or inflame into active wrath with irritants." The doctrine of the existence of a "vital force" which "'signifies the living principle which exists in every organised being,'" and is "'a force completely *sui generis*, but one which, being more or less allied to physical forces, has its phenomena more or less modified thereby,'" Dr. Ainstie regards as only the most modern development of the old theory, and as equally incapable of being proved: it is only the Archœus of earlier times in a modern physiological dress. He holds that we must be content with Coleridge's definition of life—viz., "Individuation—'the internal copula of bodies . . . the power which discloses itself from within as a principle of *unity* in the *many*.'" We are not metaphysicians, and may therefore be excused, we hope, for finding this a very Coleridgean and dark saying, and one which really only says that life is because—it is. But if we accept it, endowing it with as much meaning as we can, as Dr. Ainstie thinks we should, it seems to follow that "we have no right to assume that the increase of any one or more of the 'many' forces concerned in the life of the body is an exaltation of the 'vitality' of the organism, or of the part wherein such increase of force is developed. The standard of life is a certain exact balance of various forces, developed with a certain *constant relation* to material tissue arranged *in a definite manner;* to say we increase such life or 'vitality' in one part of the organism by destroying this balance, is a contradiction in terms." The "use of the word 'stimulus' to express the cause of *excessive* action of any kind in the body" is then improper, and it is incorrect to assume, "as is usually done, that every rapidly-increased manifestation of mental activity from an external cause, all increased sensibility, and all pain, all convulsive muscular contractions—every increase, whether of the force or the frequency of the action of the heart and arteries," etc.—result from the action of a "stimulus." On the contrary, the "genuine effects of stimulation," according to Dr. Ainstie, are "relief of pain; removal of muscular spasm, tremor, or convulsion; reduction of undue frequency of the circulation; reduction of excessive secretion; removal of general debility, or of special fatigue of muscles, brain, or digestive organs; removal of delirium, or maniacal excitement, and production of healthy sleep; support of the organism in the absence of ordinary food; local increase of nutrition where *this is deficient*."

In conclusion, Dr. Ainstie proposes "That the use of the word 'stimulant' be restricted to agents which, *by their direct action*, tend to rectify some too deficient or *too redundant action or tendency*." "That agents which produce excessive and morbid action of any kind in the organism be refused the name of stimulants, even though smaller doses of them may act in a truly stimulant manner." And "that the word 'over stimulation' be entirely rejected from use, as unphilosophical and a contradiction in terms."

The 160 pages through which Dr. Ainstie works out his argument are full of ingenious reasoning, original observation and thought, and practical illustrations, and we strongly recommend to our brethren their careful perusal and consideration. Some of his arguments will fail to carry conviction, and some of his views of course will not be accepted, but men will find much that, not existing or only faintly shadowed forth in "the Books," though more fully in Dr. Radcliffe's works, has been living and working in the minds and practice of the Profession, and which they will be glad and thankful to see thought out, and "precipitated" in black and white. Much more than this we cannot say, for it would be obviously absurd to attempt to review so much work as is contained in this part and the rest of Dr. Ainstie's book in the space at our command. We will, however, observe that Dr. Ainstie's definition of a "stimulant" is an exceeding wide one, and, as it appears to us, will embrace very widely differing substances. Thus, the bowels are confined; we give a purgative—ordinarily so called—say a few grains of colocynth, and we relieve the constipation; or there is deficient secretion of urine, we give some neutral salts of potash, and the secretion rises to its healthy quantity; in each case we "rectify a deficient natural action." Are we, then, to class the purgative and the diuretic as stimulants?

First among true stimulants Dr. Ainstie places "quickly digested and nutritious food," and especially for its power of relieving pain, his experience being that "if food can be digested there is nothing which in so many cases relieves pain with satisfactory celerity, unless it be kept up by a mechanical cause;" and he gives very interesting illustrations of this, especially a case of a child, aged 14, suffering severe agony from peritonitis; when Dr. Ainstie saw her, "leeches, turpentine stupes, and opium in large doses had been tried, and utterly in vain; the vomiting was worse than ever; the pain excruciating;" the only thing that had given any relief was an injection of gruel. Dr. Ainstie threw a pint of rich soup up the rectum in divided doses; great relief followed; and on continuing the same treatment pain diminished, vomiting gradually ceased, the skin softened, the tongue cleaned, and in the end the child made a good recovery. Among the preparations of ammonia he mentions the hydrochlorate as having "a pure and powerful stimulant action," and, therefore, relieving neuralgia; we are in the habit of using this salt very freely, and find it of great value in certain forms of neuralgia and dysmenorrhœa, in such forms, viz., as seemed to us to depend on a rheumatic tendency or diathesis, but we confess we have regarded it as a depurative or eliminant—we need not stay to define the terms—not as a "pure stimulant;" in amenorrhœa also it is a very valuable medicine; and sure we are that in none of these maladies would the carbonate of ammonia have the same effect, but this, too, has "a pure and powerful stimulant action." The hydrochlorate must then possess some different or additional property?

Tobaccophilists will be glad to learn that Dr. Ainstie rescues that friend to humanity from the class of depressants and poisons, and makes honourable mention of it among the stimulants, and shows that it soothes, and can for a while supply the place of food.

But we must pass on. Chapter IV. treats of the "Definition," and Chapter V. of the "Symptoms of Narcosis." Chapter VI. is "On Certain Bodily Conditions which are Unfavourable to the Production of Narcosis," and Chapter VII. on the "Relations which Stimulation and Narcosis bear to each other, in the Action of those Substances which are capable of producing both." "Narcosis proper," Dr. Ainstie says, "may be described as a physiological process in which the nervous system is deprived, by the agency of a poisoned blood supply, of its vital characteristics, with greater or less

rapidity, and which directly tends to produce general death of the organism by means of such deprivation;" it is "the severance of the copula of life—a severance, partial or complete, according as it cuts through some mere solitary border-path, or the busy cross-roads of the ways of life." Thus: "1. To paralysis of the brain may be ascribed delirium, coma, emotional 'excitement,' involuntary memory, and involuntary fancy. 2. To paralysis of the spinal cord may be probably ascribed spasms, tetanic convulsions, paralysis of sensation, independent of loss of consciousness, tingling and creeping sensations on the surface, and actual pain. 3. To paralysis of the medulla oblongata may be probably referred clonic convulsions, tremor, and shudderings, disturbances of respiration, vomiting," and so on. And amongst other "conclusions" as to the action of narcotics and stimulants, he states that, "Of the numerous narcotics, of most different kinds, all are distinguished by one central feature—viz., in the production of consecutive paralysis of the various portions of the nervous system. That most, if not all, narcotics when given in smaller doses than those required to produce the lesser degrees of narcosis, act as stimulants, and that this stimulant action is not produced, even in the slightest degree, by narcotic doses."

Chapter VIII.—a very short one—is on the Acro-Narcotics. Chapter IX. contains the "general conclusions" to be drawn from the previous arguments, the most important of which are, perhaps, the following:—

"1. Narcosis, being a purely paralysing process, does not fall within the number of remedial agencies, properly speaking.

"3. The real therapeutic effect of the agents which we commonly call narcotics is a true stimulation, that is, when we employ them in proper medicinal doses.

"4. When a particular symptom—*e.g.*, pain—can only be relieved by narcotic doses of any drug, the medicine is probably altogether an improper one for the case.

"6. It is erroneous to suppose that stimulation thus employed is followed by a depressive 'recoil' in any other sense than feeding may be said to be so followed."

To give anything like a *resumé* of the grounds on which these conclusions are based we should have to quote nearly the whole of Dr. Ainstie's work; men must read it for themselves, and we are sure none can rise from its study without benefit and gain; every point is elaborately argued and freely illustrated.

The latter part of the volume contains "Special Researches" on æther, chloroform, and alcohol, as narcotics and as stimulants, and, like the first part, is full of instruction and suggestion. As to the question of the "elimination" of alcohol, Dr. Ainstie gives us a number of carefully-conducted experiments, which seem to corroborate M. Baudot's opinion on the subject and to "greatly invalidate" the justice of the famous conclusions of Dr. E. Smith, and of MM. Lallemand, Duroy, and Perrin.

Once more strongly recommending Dr. Ainstie's book to the careful notice of our brethren, we heartily congratulate that gentleman on having produced a work of such labour and thought, a really valuable addition to Medical literature. We will only add that the volume is handsomely got up, and contains a copious and excellent table of contents, and valuable bibliographies "of the doctrine of vital spirits" and "of the action of alcohol, æther, and chloroform."

Medical Education in the University of Dublin. A Discourse delivered at the Opening of the School of Physic in Ireland, Session 1864-65. By W. Stokes, LL.D., F.R.S., Regius Professor of Physic in the University of Dublin. Printed at the University Press, Dublin. 1864.

The main burden of this admirable discourse is the necessity of requiring that those who enter the Profession shall be fully and thoroughly educated in Arts, as well as in Medicine, as the only way in which Medicine can be truly "served, fostered, and elevated;" this being required by Medicine because "it has been too long kept in an inferior position as compared with its sisters, Divinity and Law, and because a large proportion of those who enter it are, as we shall see just now, trained as if they were to be members of a caste, and not of a Profession; and, lastly, on account of the facility with which it can be—and is too often—degraded to the level of a trade." A mere preliminary examination in arts Dr. Stokes considers as entirely insufficient, "even if the test were carried out in good faith;" the study of arts must be full and complete; it must form an integral part of the student's general mental culture, so as, as Dr. J. Newman wrote, "to help him to do what the illiterate man cannot do—to think, to reason, to compare, to discriminate, to analyse, to refine his taste and sharpen his judgment; to place him in that state of intellect in which he can take up any special calling with an ease, a grace, and a versatility to which he would be otherwise a stranger." And Dr. Stokes points out how in these days Medical men must be familiar "with the sciences of optics, of acoustics, and of chemistry in its widest sense, or "they will see the honours of discovery in their own science passing into other hands." We entirely agree with Dr. Stokes in his estimation of the value of a complete University education—that it prepares and arms a man for the study and practice of Medicine as no other training can; and we should most gladly see such an education brought much more generally within the reach of the Medical student.

As to the present regulations with regard to a preliminary examination in arts, we think Dr. Stokes is rather severe when he declares "that, with reference to most of the Licensing Bodies, these regulations are not only useless, but objectionable; they demoralise the student by making him a party to proceedings which present the show for the substance, and which he has generally wit enough to estimate at their true value." It is true that these regulations only require a very moderate amount of knowledge, and make no provision for any future education in arts, but we have reason to believe they are well and honestly carried out, at least by most of the Licensing Bodies, and they are an important step in the right direction. And it must be remembered that a University education is not everything, for probably no set of men are more prone to quackery—and like weaknesses of judgment—than are the Clergy as a body. We have not space, however, to discuss this question. We cordially recommend Dr. Stokes's eloquent discourse to all who would see what can be said in praise of education in arts, and would learn how, at Trinity College, Dublin, "the student may pursue and complete his education in Arts and Medicine at the same time."

GENERAL CORRESPONDENCE.

MEDICAL EDUCATION AT OXFORD AND CAMBRIDGE.

Letter from Dr. T. Clifford Allbutt.

[To the Editor of the Medical Times and Gazette.]

Sir,—Your paper published on the 12th of November has just come into my hands. In it there appears a letter from "Paterfamilias," in which the management of the Universities of Oxford and Cambridge is discussed at some length. As you, Sir, have also thought it well at various times of late to write upon this important matter, I have been led, against my wont, to take some part in the controversy. This I do with the more readiness, as the letter of "Paterfamilias" expresses with quietness and fairness certain opinions too often put forth in a narrow and mischievous spirit. The discontent of "Paterfamilias" seems to be this,—that the old Universities do not afford a special education in the shortest time and at the lowest possible rate. The answer is simple,—that the old Universities neither profess nor desire to do so. Their object, as you, Sir, have justly said, is not to give special, but liberal, education, and to do that under the best conditions; such provision as "Paterfamilias" seems to seek is made in the University of London and elsewhere. Let me shortly discuss each of the wants of "Paterfamilias" in the order which I have chosen. 1. The character of the education. 2. The time. 3. The cost of it. Now, the benefit of old Universities, like the benefit of all permanent endowments, is to oppose the permanent to the transient, or to combine the two. While dealing with the actual, they seek to blend it with the historical, to deprive it of its temporary predominance, and to give it its due place in that national development which is not the result of any particular generation, but of the tradition of centuries. That education which gives to a man the results of the best thought and action of ages—which gives him free range beyond the limited orbit of his personal life—is called a liberal education; and the literature which embodies it is called the literature of the liberal arts. The influence of the liberal arts again is derived not only from books, but also from other historical monuments, and from intercourse with men who cultivate them. The old grammar schools and Universities, having lived

through many centuries of active and studious life, have gathered into themselves much of that which was best in the past, and thus they mould insensibly the character of those who dwell within their walls. The education testified by an Arts degree at Oxford or Cambridge is given partly by daily association with scholars and gentlemen from all parts of the kingdom (in the Medical Universities from all parts of Europe), partly by living some time under the influence of embodied tradition, partly by study of the liberal arts. This education varies in the degrees of its components, as accident and disposition may determine; but it is wholly wrong to limit the meaning of the Arts degree to the booklearning it requires. The examinations refer to a part only of the education. A certain amount of such learning is indispensable, and liberty and opportunity are given for any increase of it. It does not, however, stand alone, and those who pass in the lowest rank of it may have received a liberal education nevertheless. A scientific education, even if profound, is not a liberal, but a special education. It excludes morals, politics, and elegant letters. On the other hand, no one of these latter is to be called a liberal education to the exclusion of the rest, or of science. Schools of science, philosophy, and morals must be added to schools of literature; hence, to give a degree in Arts at Cambridge for a scientific education is a great mistake. Another character of good education is thoroughness. I have had some experience in the examinations of which "Paterfamilias" speaks—"of Latin, Greek, Mathematics, Chemistry, Dynamics, Pneumatics, Optics, Acoustics, Hydrostatics, French or German, English Grammar, Modern Geography, and English History," which is "Paterfamilias'" ideal little-go. My experience tells me that such examinations are a vanity and a snare; they are drawn up as much for the parents as for the pupils, and they end in shallowness and sciolism. Secondly, as regards the time. The old Universities wish to educate men first liberally, and this chiefly; then they are willing to forward a special education in one of the learned professions. No man can be fitted to practise in any of these, say, before the age of twenty-five at earliest, which gives four or five years for special work after taking the Arts degree. It is not wished that youths should have the means of starting upon such responsible duties. The study of Medicine is as short and as cheap as the study of Law. It is not so cheap and so short as that of Theology, which is a cause for much thankfulness. Thirdly and lastly, as regards cost. A young man goes up to Oxford or Cambridge, hoping to make himself a scholar and a gentleman. If his faculties give him no hope of becoming a scholar, and his means no hope of mixing in the society of the place, then for what earthly reason does he go there? A special education, either in law or Medicine, is got far better elsewhere. As to Medicine, Oxford and Cambridge are (certain professors apart) among the worst of the Medical schools. Then why does a student, who requires a short and cheap special education, or who is too poor to enjoy a College life, or too ignorant to win any of its emoluments, why does he go there, or want to go there? In a word, a man may live as cheaply at Oxford or Cambridge as he can live anywhere else with private rooms and attendance, and the opportunity of offering and enjoying a wholesome hospitality. If he has any brains, he may add considerably to his means. At Caius College a Tancred studentship will almost pay his way for the rest of his course. If properly prepared (and the Colleges do not seek unprepared men) he should get a scholarship, perhaps with rooms, in his first year; and in due course he should also get both the Mickleburgh Scholarship in Chemistry and the Perse Scholarship in Anatomy and Physiology. Finally, let me deny "Paterfamilias'" statement that the Colleges are niggardly. They may be to his ideal young men, but to those who do them any credit they are much otherwise. One instance is very familiar to me where Caius College voted £50 per annum for three years to a student who had taken a good place in the Natural Science Tripos. To sum up, the old Universities devote themselves to liberal education. Special educations in connexion with them are practically carried ont elsewhere. This liberal education is given partly by the advantages of residence, partly by those of study. They do dot desire to turn out the greatest number, but the best class of students. This must cost money, much of which the able and industrious will win, and the rest must find elsewhere. Many of us have made sacrifices for such education, and having obtained it, know the better how to prize it.

I shall not apologise for the length of my letter, as I think the subject an important one, and one not fully understood.

In conclusion, may I ask "Paterfamilias" to keep to his character as "Paterfamilias," and to avoid the classical languages? In his letter of November 12 he makes the astounding assertion that "Cæsar's books . . . are written in bad Latin." Shade of the divine Julius! friend of Cicero, jealous like him for the purity and vigour of the noble Latin tongue,—author, moreover, of a treatise "De Re Grammaticâ," and of Commentaries whose surpassing excellence "sanos quidem homines a scribendo deterruit"—accept my propitiation! Had "Paterfamilias" said Cicero, we might more easily have believed him. There is, Sir, in the game of cricket a movement known as an "over." At certain moments in the course of the play the relations between the central players are reversed. This reversal necessarily involves in its completion a transfiguration of the system of dependent players, each of whom stands in a definite relation to the central players, and whose eyes wait upon them as the eyes of a handmaid upon the hand of her mistress. On reading "Paterfamilias'" judgment upon Julius Cæsar as a Latin writer, the whole of the system of Latin authors performed such an "over" in my bewildered imagination. With the reversal of Cæsar's central position came a corresponding revolution in the whole of the scheme of Latin literature. "Down the middle" went Cicero and Tacitus, "and up again" went the Latin fathers and the Mediæval chroniclers, Prudentius crossed with Catullus, Octavius Horatianus with Horatius Flaccus, and the historian Naturalis sent the De Rerum Naturâ reeling into obscurity.

"They reeled, they set, they crossed, they cleekit,
Till ilka carlin swat and reekit."

In the midst of this vision of tumult fell upon me a solemn voice from a venerable commentator (Gerard Voss?) who, speaking on this wise brought peace to my delirious mind. He says of "aureolus iste libellus" (Cæsar's Commentaries), "quanti pretii fuerit apud veteres, quanto in honore ab omnibus omnium ordinum hominibus temper sit habitus, atque habeatur etiamnum; nemo ignorat, nisi qui in omni antiquitate studiisque humanioribus plane sit peregrinus."

I am, &c.

Leeds, December 5. T. Clifford Allbutt.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, December 6.

Mr. Prescott Hewett, President, in the Chair.

A report, by Dr. Harley and Dr. Murchison, was read on

DR. ROBINSON'S CASE OF MENINGITIS WITH ATROPHY OF THE LIVER.

After having examined, microscopically and otherwise, the liver and kidneys of the above-mentioned case, your reporters have arrived at the conclusion that it is one of acute atrophy of the liver. The reasons which chiefly induced your reporters to adopt this opinion are the following:—Firstly. The liver is very much under the normal weight, being only $2\frac{1}{2}$ lbs.; whereas, the normal liver of a man of the size and development described in the author's paper ought to weigh about 4 lbs.—viz., $\frac{1}{36}$th of that of the body. Secondly. When the liver is examined microscopically, scarcely any hepatic cells are to be found, and the few which do exist are very granular and much stained with bile pigment. The field of the microscope, however, is chiefly occupied with free granular matter and oil globules, apparently the escaped contents of disorganised cells. It is necessary to remark that as the specimen is somewhat old, the almost universal destruction of the hepatic cells may be in part due to commencing decomposition. Thirdly. The tissues of both kidneys, when examined microscopically, is seen to contain numerous crystals of tyrosin. The crystals are mostly in the form of spiculated balls and stellate groups of fine, needle-shaped prisms. As many as five sets can occasionally be counted in the field of the microscope. Their distribution is, however, by no means uniform. Fourthly, and lastly. The history of the case, the size of the liver, and the presence of tyrosin in the kidney, completely accord with the view of its being one of acute yellow atrophy.

Dr. Hermann Weber exhibited

KIDNEYS WITH SO-CALLED FIBRINOUS DEPOSITS FROM EMBOLISM OF THE RENAL ARTERIES.

The patient, a woman aged 26, had been admitted into the

German Hospital, on October 3, with old mitral disease and pulmonary apoplexy. On October 5 she was suddenly seized with violent pain in the right side, just below the 12th rib, coupled with great collapse, vomiting, and diarrhœa, the pain being increased by pressure. The symptoms abated after about two days. On October 12 a similar, but still more violent attack occurred, the pain being this time on the left side, lasting almost a week, with varying intensity, and being only relieved by frequent subcutaneous injections of morphia. The urine, which had exhibited only a very small quantity of albumen before these attacks, became highly albuminous during, and for about a fortnight after, this occurrence, containing many tube casts of various kinds, but principally transparent ones. From the end of October, however, until the time of death the urine was free from albumen and casts. Traces of blood only had existed during a few days at the time of the attack. Anasarca of the lower extremities, which had been moderate before the attacks, had much increased immediately after them, but diminished again with the disappearance of the albumen from the urine. Intense icterus during the last fortnight. Death occurred from pulmonary apoplexy and pleuritic effusion on November 11. The post-mortem examination manifested mitral stenosis, with roughness of the edges of the very narrow oval-shaped opening, and great dilatation of the left auricle; and also moderate contraction of the tricuspid orifice (from adhesion between two of the folds, and slight thickening of all three), and corresponding dilatation of the right auricle. The right lung exhibited the products of pulmonary apoplexy in various stages of progress, and the right pleural cavity was filled with sero-purulent fluid. The mucous membrane of the small intestines swollen, closing the opening of the gall duct. Liver nutmeg, commencing atrophy, tissues very tense. Spleen likewise hard and tense; as also the suprarenal capsules. The right kidney contains in the centre a pale, yellowish deposit, shrunk and depressed below the surface of the surrounding tissue; the left kidney contains several larger deposits likewise of pale yellow colour, but slightly raised above the level of the surrounding normal tissue; the deposits occupy the greater part of the upper portion of the kidney; the corresponding artery is obliterated by an old fibrinous plug, while the artery supplying the normal portion is free. The plug in the obstructed branch of the artery is slightly adherent to the walls—can, however, be separated without injuring them; it does not obstruct the whole length of the branch, but terminates at two ramifications rather abruptly, leaving the remainder free. Dr. Weber remarked that amongst the many points of interest the case showed, with regard to the so-called fibrinous deposits of the kidney, their embolic nature by the presence and the characters of the plug in the upper branch of the left renal artery; that it further elucidated the symptoms of embolism of the kidneys, which affection in this instance had been diagnosed by Dr. Baeumber, the resident Physician of the Hospital at the time of the occurrence; and that it manifested also the changes taking place in these "deposits," that in the right kidney having occurred thirty-eight days before death, being already shrunk below the level of the surrounding tissue, while the deposits in the left kidney having occurred between a week and a fortnight later, were still slightly prominent above the level of the surrounding tissue, but without the elevated red margin seen in still more recent cases.

The time of the Society being much occupied, Dr. Weber did not enter into the description of the microscopic appearance of the deposits.

Dr. Harley asked Dr. Baeumber to describe the circumstances which led him to the diagnosis.

Dr. Baeumber then mentioned the symptoms related in the case—viz., the sudden occurrence of violent pain in the region of the kidney, great collapse, sickness, and diarrhœa, coupled with the changes in the urine, in a patient affected with old mitral disease, and, therefore, predisposed to embolic affections.

Dr. Crisp thought that this, like many other cases of so-called embolism, did not properly come under this head. In many inflamed parts the arteries contained fibrinous deposits, and it was impossible, he thought, that fibrine could be carried from the heart, and thus plug several small arteries of the kidney.

Dr. Weber replied that Virchow had clearly proved by experiments that much larger pieces of fibrine than that forming the plug in the case before the Society could be propelled by the heart, and carried by the blood to distant organs until they were arrested by the diminished size of the artery, or by a bifurcation, and thus led to plugging of some arterial branch or branches.

Mr. Fergusson read the following communication sent to him by George Harday, Surgeon, West Haddon:—

CASE OF EXCISION OF THE HEAD OF THE RIGHT HUMERUS AND GLENOID CAVITY OF THE SCAPULA FIFTY YEARS SINCE.

N. B., aged 78, by trade a sawyer, a tall, well-made man, came under my observation in the year 1844 (then in his 59th year). A peculiar flattened appearance about the right shoulder joint which attracted attention was explained by the absence of the head of the humerus and articular surface of the scapula. From his own account, in the year 1812 he received a severe injury to the shoulder joint, inflammation and suppuration resulted, exfoliation followed: caustics, incisions, and general treatment did not avail to relieve the constitutional irritation. In 1814 Dr. Locock, assisted by Dr. Kerr, at the General Infirmary, Northampton, removed the carious head, and about an inch of the shaft of the humerus and glenoid cavity of the scapula. He made a good recovery, and for some years after followed a lighter occupation than his laborious calling: he, however, resumed his trade, and the narrator has often seen him wielding his axe to prepare the butt of a tree for the sawpit. The power of the right arm was all underhand, and when the axe was raised the left arm was the elevating member. As he had promised to bequeath to me the shoulder, he enjoined his friends to inform me of his death. The parts were hurriedly removed the day after his death, April 21, in the presence of his relatives. Before turning back the skin from the flattened shoulder three deeply attached cicatrices presented. The Deltoid muscle was small, the supra spinatus much wasted, the other muscles much wasted. The part from which the glenoid cavity was excised will be seen be bifid; the ligamentous connection of the shaft of the humerus to the scapula is in the line of the greater tuberosity, the unattached portion in that of the lesser. For fully thirty-five years this man's arm did him useful service.

Mr. Fergusson then brought forward a specimen of

MILK-LIKE FLUID REMOVED FROM A HYDROCELE.

The fluid, removed on two occasions, looked exactly like milk. It was so striking, Mr. Fergusson never having seen a similar case, that he brought it before the Society. He did not believe much in analysis, but it might be a feast for the imagination of some gentlemen. It had already been examined with great care by Dr. Thudichum; but as it was a very rare specimen, Mr. Fergusson thought it would be well that it should be reported on by the Pathological Society.

In reply to Mr. Fergusson, the President said that he had not seen such a case.

Mr. Fergusson, in reply to the President, said the fluid was, he thought, more of a fatty than of a milky character.

Dr. Broadbent said that Dr. Thudichum had found that the milkiness was due to fat, but in the form of fatty acids.

Dr. Harley and Mr. Francis Mason were requested to analyse the fluid, and to report on it to the Society.

Dr. Sedgwick then brought before the Society a child, who had been the subject of

KELOID.

A report of the case is to be found in the twelfth volume of the *Transactions* of the Society. The child's health had improved very much, and all the fourteen patches were gone, nothing being left but brownish stains. The skin generally was healthy, except in one point, where was a glossy white patch. This resembled the early stage of the other patches, but it had not undergone any changes. There was a shallow groove on the tongue where there had been a patch of keloid. The disappearance of the disease began soon after the report. Cod liver oil had been given, but probably time had been the great element towards cure. The same occurred in a case described but not named by Dr. Alderson.

Dr. Hillier thought the disease resembled that which had been called sclerema by Dr. McKinnon, of Glasgow. Sclerema generally ended in evolution, and differed from Addison's keloid in not being claw-like. In one or two of Dr. McKinnon's cases the tongue had been affected.

Dr. Balmanno Squire thought the disease was not true keloid, but that it was allied to lupus.

Dr. Semple said care ought to be taken in spelling the form of the disease. It was sometimes written "keloid," and sometimes "cheloid." The first term merely meant a tumour, the second a tumour like a claw. The disease in Dr.

Sedgwick's case did not present the appearance of a claw. He (Dr. Semple) thought sclerema would be a safe designation.

After some further remarks by Dr. Schulhof and Mr. Chalk, Dr. Sedgwick said the disease had been called keloid by three Hospital Physicians, but the term was, he agreed, not a very appropriate one.

Mr. Power exhibited a

CASE OF ENCEPHALOCELE,

which had occurred in the practice of Dr. Tebay. The expanded plate of the occipital bone was entirely deficient, and the brains were, for the most part, contained in a large sac at the back of the head, formed by the expanded and attenuated dura mater and integuments. Examination of the brain showed the absence of corpus callosum, fornix, and commissures, so that the hemispheres were only connected by some transverse fibres occupying the position of the anterior perforated space. The cerebellum was absent, and the medulla oblongata presented a truncated appearance, the restiform tracts appearing as a few loose strands. The anterior pyramids could be traced into the hemispheres, forming the crura cerebri. There was no pons Varolii. Examination of the heart showed the following remarkable arrest of development:—At the upper part of the septum ventriculorum was a large foramen, which opened just below the semilunar valves of the pulmonary artery. This trunk, however, after giving off the right and left pulmonary arteries, continued as the thoracic aorta, curving over as usual to the left side, and giving off the vessels for the supply of the head and arms, presenting, consequently, features which were not dissimilar to those characterising the circulation of the higher Reptilia.

Mr. Christopher Heath brought before the Society

THREE CASES OF ENCEPHALOCELE OF THE ANTERIOR PART OF THE HEAD.

1. The first specimen was from a case which occurred in the practice of Mr. Riley, of Charlwood-street, and consisted of the head of a child born at full term, which presented a large tumour of the forehead, measuring twelve inches in circumference transversely and ten inches in circumference from before backwards. This tumour was the presenting part in the labour; and as it prevented the delivery of the head, it was punctured, when about a quart of clear serous fluid escaped. The child lived ten hours, fluid and particles of brain matter coming away from the puncture during that time. The tumour proved to be an encephalocele, the dura mater being bulged out between the halves of the frontal bone, which were widely separated, and containing a portion of the brain. The brain was very soft; but there appeared to be no communication between the cavity of the tumour and the ventricles. The child was otherwise well formed, with the exception that it presented a single hare-lip immediately to the right side of the median line.

2. The second case was that of a little girl, aged 11, who at birth had a pulsating tumour at the root of the nose, evidently dependent upon some communication with the interior of the skull, and probably connected with the anterior lobes of the brain. The child had been first seen by Mr. Heath when five years old; and a photograph of it at that age was exhibited, no material alteration having taken place since that date. The tumour had expanded the nasal bones, but did not encroach upon the nasal cavities, and was presumed, therefore, to depend upon some want of development of the base of the anterior form of the cranium, and probably the cribriform plate of the ethmoid bone.

3. In this case the protrusion was almost precisely similar to the second case as to position, but the tumour was more prominent, and about the size of a very large marble. The child was 3 years old. The growth seemed to have increased in proportion to the chid's age only. During the first four months of life the sac appeared to be perfectly transparent; and at the end of that time Mr. Paget tapped it, and evacuated a considerable quantity of fluid. Afterwards, iodine injections were used on three occasions, and caused so much inflammation that serious symptoms were developed. However, after this, the walls yielded, and a large quantity of fluid looking like dirty water was evacuated. Soon after—within twenty minutes—it re-filled: and since, nothing has been done.

The child is strong and well, and suffers no inconvenience, except from the deformity produced by the tumour; for this he was brought to Mr. Heath last summer, but the case was evidently one not admitting of operation.

Dr. Greenhow showed a specimen of

DISSECTING ANEURISM OF THE ABDOMINAL AORTA.

On admission into the Hospital, the patient, a young man of 28, had a large fluctuating tumour at the left side of thorax posteriorly. A few days later another swelling appeared at right side of spine, and it was soon evident that there was communication between the two tumours. Some doubts being entertained as to their nature, a very small trocar was introduced into the left tumour, and drew nothing but a little arterial blood. The wound was dressed with collodion and lint, and healed readily, no injury resulting from the operation. The tumours continued to enlarge, and the patient died of asthenia. At the autopsy, the liver and kidneys were found displaced and protruded forwards by a large aneurismal tumour which occupied the posterior part of the abdomen from the diaphragm downwards as low as the ilium, and was deeply grooved along its middle by the aorta, which was in front of it. The sac was distended with thin, claret-coloured blood, and lined with dense layers of fibrine. The diaphragm was pressed upwards on both sides by the tumour. Immediately below the diaphragm the aorta opened abruptly into the aneurism, two-thirds of its circumference posteriorly presenting a free even margin, as if cut with a knife. Anteriorly the wall of the artery was spread out so as to form part of the anterior wall of the aneurismal sac. The inner coat of the artery could be traced passing over the free margin of the vessel and lining part of the sac. The exit of the aorta from the sac was also abrupt, but somewhat less so than its entrance, and the vessel appeared of normal calibre both above and below the aneurism. The breach in its posterior wall was $1\frac{1}{4}$ inches in length, extending from the diaphragm nearly to the renal arteries. The cœliac axis and the superior mesenteric artery opened directly into that portion of the anterior wall of the artery which formed part of the aneurismal sac. The vertebral column was for several inches entirely included in the aneurism, which had eroded part of the bodies of several vertebræ, and had displaced and partly divested of periosteum some of the lower ribs on both sides.

Dr. Greenhow also showed several specimens of

TÆNIA MEDIO-CANELLATA,

which had been obtained from patients under his care during the last few months. Two of them were perfect. He said that this species of tape-worm, generally considered so rare, was in his experience more common in London than tænia solium. The T. medio-canellata was distinguished from T. solium by its much greater length, the greater breadth and thickness of its proglottides, the larger size of the head, and, above all, by the absence of hooklets. It was also of very rapid growth, and gave off segments in such profusion that they frequently passed spontaneously without any action of the bowels. One of the specimens exhibited was remarkable for the extraordinary length of some of its segments, one measuring as much as $2\frac{1}{2}$ feet. The case from which two of the other specimens were obtained well illustrated the peculiar tenacity of this species of tænia. For nearly two years the patient, who had two parasites, suffered from a recurrence of the symptoms at regular intervals of ten to twelve weeks, and it was only in May and August of the present year that the two heads were successively expelled by treatment, so as to effect a permanent cure.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, December 8, 1864:—

Bryan Holine Allen, University College Hospital; Vaughan Carnley, Church-street, Barnsley; John Reuben Bathurst Dove, London Hospital; Thomas Wiltshire, Abingdon, Berks; Charles Henry Spooner, Newington, Surrey; Charles Forrester Bullmore, Falmouth; George Brigg Peirson, Sherburn, Yorkshire; Frederick Manser, Chatham, Kent; Thomas Collier, Bridgend, Glamorganshire; Thomas Charles Spyers, Faversham.

The following gentlemen, also on the same day, passed their First Examination:—

Edward Seymour Wright, London Hospital; Joseph Goodall and Charles George Langdon, St. Bartholomew's; James Forbes Sargent, St. Mary's.

Royal College of Surgeons.—At the last meeting of the Council Mr. Jonathan Clerke, of Dublin, diploma of membership dated April 18, 1828, was admitted a Fellow of the College by election.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BAILEY, F. C., M.R.C.S. Eng., has been elected Medical Officer for the South District of the Norwich Incorporation of the Poor, and to the Girls' Home.

BARTER, CLEMENT S., M.R.C.S. Eng., has been appointed Medical Registrar to the Bath United Hospital.

BIRT, J., M.R.C.S. Eng., has been elected House-Surgeon and Secretary to the Dispensary, Stourbridge.

CURGENVEN, W. G., M.D., has been appointed House-Surgeon to the Derbyshire General Infirmary.

DOLMAN, ARTHUR H., M.R.C.S. Eng., has been elected Surgeon to the Derbyshire General Infirmary.

FREEMAN, H. W., M.R.C.S. Eng., has been appointed Resident Physician's Assistant and Apothecary to the United Hospital, Bath.

GISBORNE, HENRY F., M.R.C.S. Eng., has been elected Consulting-Surgeon to the Derbyshire General Infirmary.

HILLIARD, ROBERT H., M.D. Glasg., has been appointed Government Medical Inspector of Emigrants for the Ports of Glasgow and Greenock.

SHONE, RICHARD L., M.R.C.S. Eng., has been elected Resident Surgeon and Apothecary to the Western General Dispensary, Marylebone-road.

SIMPSON, PHILIP JOHN, M.R.C.S. Eng., has been elected House-Surgeon to the Westminster General Dispensary.

DEATHS.

BARRY, EDWARD, M.R.C.S. Eng., at Cahirciveen, Co. Kerry.

BROWNE, F., Assistant-Surgeon, Army, late of the 26th Regt., on October 26.

CHAIN, ROBERT, L.R.C.S. Edin., at Banbridge, Co. Down, on December 3.

COOPER, R., M.R.C.S. Eng., at Club Chambers, Regent-street, on December 4, late Surgeon 4th Dragoon Guards.

DEMPSTER, RODERICK, L.F.P.S. Glasg., at Forres, Morayshire, on November 26.

FELL, T. L. H., Surgeon, at Athol-street, Liverpool, on November 30.

KIRKES, WILLIAM SENHOUSE, M.D., F.R.C.P., at 2, Lower Seymour-street, Portman-square, W., on December 8, aged 41.

LA PRESLE, JOSEPH T., M.R.C.S. Eng., at Murree, Bengal, East Indies, on September 8, Surgeon 3rd Batt. Rifle Brigade.

MANN, GEORGE SMYTH, Surgeon, at Dacca, East Indies, Deputy-Inspector-General of Hospitals, Bengal Presidency, on October 31, aged 48.

MIDDLESHIP, Dr. E. A., at St. Bartholomew, West Indies, on October 19.

SCOTT, JOHN JAMES, L.K.Q.C.P.I., Staff-Surgeon at Upper Park Camp, Jamaica, recently, aged 34.

WALKER, ROBERT, M.D. St. And., at 89, Mosley-street, Manchester, on December 11, aged 48.

WRIGHT, J., Surgeon, at East Stamfordbridge, near York, aged 72.

THIS day (Saturday, the 17th inst.) Mr. Erasmus Wilson will read a paper before the Association of the Medical Officers of Health, on "Skin Disease in Connexion with Preventive Medicine."

CANTOR LECTURES AT THE HOUSE OF THE SOCIETY OF ARTS.—The first of the series of Cantor Lectures was delivered on Monday evening the 12th inst. by Waterhouse Hawkins, Esq., F.G.S., F.L.S.

TRICHINOUS DISEASE.—This parasitic affection seems likely to become cosmopolitan. It has made its appearance in America as well as India.

EXAMINATIONS.—The next Preliminary examination for students about to commence their Professional studies will take place at the College of Surgeons on Tuesday next; the Primary or Anatomical examination on the 14th proximo, and the Pass or Surgical on the following Saturday, January 21.

GRATIFYING TESTIMONIAL.—At the forty-second anniversary meeting of the Loyal Brunswick Lodge, held at Brighton last week, Mr. Richard Rugg, of that place, was presented with a massive silver loving-cup, with a suitable inscription, and other gratifying marks of the high respect in which he is deservedly held by the members of his Lodge, the Surgeoncy to which he has just resigned after nearly thirty years' connexion.

MEDICAL CHARITIES.—Miss Maria Harman, of Calverley-lodge, Tunbridge Wells, lately deceased, has bequeathed to the Dispensary of that town £50; to the Maidstone Ophthalmic Hospital, the Brompton Consumption Hospital, and the Eye Infirmary, nineteen guineas each. The late Joseph Underwood, Esq., of Hyde-park-gardens, has bequeathed to the Norfolk and Norwich Hospital and the Cumberland Infirmary £200 each.

UTILISATION OF SEWAGE.—On Saturday a deputation of gentlemen, including the chief corporate officers and other gentlemen of Birmingham, Nottingham, Derby, Wolverhampton, Coventry, Preston, and Bath, arrived in town with the object of presenting to Sir George Grey a memorial of the Council of the Borough of Birmingham adopted for that purpose, praying for the introduction of a public general bill for the utilisation of sewage, and for preventing the pollution of rivers and streams. Lord R. Montague has since informed the deputation by a letter in the *Times* that he has such a bill in preparation.

WE are sorry to record the decease of Mr. William Prue Jorden, of Lower Belgrave-street, Registrar of Births and Vaccinator to the parish of St. George, Hanover-square. Mr. Jorden was an active General Practitioner, and distinguished himself by the punctuality and zeal with which he executed the duties of the important offices he held. As a vaccinator, Mr. Jorden was most careful and conscientious, and the estimation in which he was held was marked by the fact of his appointment as one of the four public vaccinators for London authorised to give certificates of competency for students and Practitioners.

THE monthly meeting of the Odontological Society was held on Monday, the 5th inst., in Soho-square. Edwin Saunders, Esq., the President, mentioned a case which came under his notice of a young lady, 25 years of age, who was attacked with violent neuralgia, resulting in closure of the jaw for a period of from twenty minutes to half-an-hour. The attack recurred repeatedly. From the appearance of the mouth he suspected the lower wisdom tooth was concerned in the mischief, and on examination found the second lower molar was slightly decayed, and forced out of its place, setting up a good deal of irritation. He removed the second molar, and the patient had been free from the seizures since. Dr. N. W. Kingsley read a paper on his "Method of Treatment of Congenital Cleft Palate," which has excited great interest.

ANTHROPOLOGICAL SOCIETY.—Professor Owen has published the following letter in the *Times* of December 9, on the subject of the recent debate at the Anthropological Society:—"To the Editor of the *Times*. Sir,—The remarks which, at Laing's request, I made on the human crania from Caithness, and on those exhibited by Mr. Blake from Shetland, were to the effect that the general characters of the former showed affinity with the oldest Southern or Aryan type; those of the latter, with an old Northern type, combining Teutonic features with the roof-shaped calvarium and supranasal depression of the Eskimaux. The lowest skull in the Caithness series of an ancient stone period resembled that of a West African negro, but with marked distinction in the proportions of the teeth, nasal bones, etc., such as may be seen in some Hindoo and Egyptian mummy skulls; the lowest of the old Shetland skulls similarly resembled the Australian, but with equally decisive differences, the resemblance in both instances in the small cranium and prominent jaws being due to undeveloped intelligence, and perhaps to a prolonged period of suckling; while the identity in the essentially human cranial characters in all the skulls supported the inference of unity of species. The fact of chief interest deduced from the examination of the remains of the animals affording food to the ancient Caithness people was the presence of bones of the great awk (*alca impennis*), now deemed extinct by ornithologists, but thus clearly proved to be entitled to a place in the records of British birds.—RICHARD OWEN. Athenæum, December 8."

CONSERVATIVE SURGERY.—We have had some dispute as to which of our present Surgeons first employed this now somewhat hackneyed term. However this may be, a man of great eminence in bygone times—Antoine Louis, the celebrated Secretary of the Academy of Surgery, in some sense almost the Academy himself—knew well its importance. In reply, in 1757, to a communication from a correspondent of the Academy detailing a successful case of trephining, he administered a somewhat sharp reproof to the jubilant essayist for having cut away some angles of the scalp without apparent necessity. "Art," he adds, "should always be *conservative of* parts, and never resolve upon their destruction except under an indispensable necessity."

ARE VICHY LOZENGES A DRUG OR A SWEETMEAT?—Great commotion has been excited among the Paris grocers and confectioners by a prosecution instituted against one of their number by the Ecole de Pharmacie. These persons had hitherto always sold the Vichy lozenges without opposition, but the Ecole de Pharmacie maintained that, being composed of bicarbonate of soda, they are neither more nor less than a drug, and that their sale by other than licensed *pharmaciens* had been merely tolerated, and would henceforth be disputed. "But," replied the confectioners, "Vichy waters themselves, solely on account of the soda they contain, are medicinal, and yet an Imperial decree authorises a company to sell not only these,

but the lozenges in question, by means of their agents." Moreover, a case was decided in favour of the confectioners in an action brought by the *pharmaciens* at Vichy. Either the Vichy lozenge is not a medicament or an Imperial decree has authorised a commercial society to commit an infraction of the law by selling it without a pharmacien's diploma. The tribunal, without troubling itself with the delicate point of interpreting the legal value of an Imperial decree, has simply declared that the Vichy lozenge is a medicinal agent, and convicted the confectioner for the illegal practice of pharmacy.

NICE PORK.—The Sanitary Commission has been making an inquiry into a very curious subject. A stout and apparently healthy Englishman was admitted into the Calcutta Medical College, suffering from an undiscoverable disease. It was found that he had *trichinæ* in a tumour in his neck, and he died. *Trichiniasis* is said to be rather common in India, and the great cause of it is diseased pork. The Sanitary Commission tell a revolting story of the way in which pigs, and even sheep, are fed in many parts of India. They get nothing but the most filthy description of offal, and then human beings eat the flesh, and get *trichina spiralis*. Some of the details are so unpleasant that I will not advert to them; but those who know India and the personal practices of the natives will understand the full force of this statement by Dr. Gordon:—"In an incredibly short space of time after the villagers have left the field it is as clean as if they had never been there, while the herd by which the clearance has been effected may be found in some shady place near, or close to a tank, with a few of the more insatiable that have gone to hunt for dead dogs, cats, cattle, and Hindoos that have paid the debt of nature since the previous meeting, and have been thrown or left on the plain to be devoured by domestic animals or vultures." English people will find it hard to believe that flesh thus fattened is used for food, yet it causes no surprise here. The Sanitary Commission say:—"In more than one official report received by the Commission these habits of Indian pigs are spoken of with something like actual approval, and one officer appears to consider that by the regular employment of pigs the necessity for entertaining conservancy establishments for the removal of filth may be to some extent avoided." Sheep are fed in this manner also. It may be necessary to add that in many of the principal stations in India the Europeans are safe from this danger, on account of the mutton clubs, which keep properly grain-fed sheep, and distribute the joints among the members. But in the large towns the servants buy meat in the bazaars without regard to what it has been fed upon. In a country where nature itself is always fighting against human life, we are obliged to live under conditions which would be thought utterly destructive in the most temperate regions of the globe. The food is bad, the water is bad, the air in the plains is like so much poison; the streets are foul with every kind of nuisance, drainage is impossible, the dead are left unburied, or just put an inch below the ground; and, in short, an army of hostile circumstances conspire against the health. The matter of food and drink has been taken up very warmly latterly, and that is owing, in a great measure, to the President of the Medical College, Dr. Norman Chevers. For years he has devoted attention to the subject, and often called attention to the magnitude of the evil; but all movement is slow in the East, and when it is stated that Calcutta has a municipality it will be quite understood why so little good has been done, so few reforms carried out.—*Times*.

CAMBRIDGE PHILOSOPHICAL SOCIETY.—At a meeting of the Cambridge Philosophical Society, on Monday evening, November 28, Professor Thompson in the chair, Dr. Humphry made a communication on the question, "Is the Vertebral Theory of the Skull to be Abandoned?" This communication was intended, partly, as a reply to the opinion expressed by Professor Huxley, in his lectures on Comparative Anatomy, that the vertebral hypothesis of the skull has been abolished by the recent discoveries in development. Dr. Humphry commenced by calling attention to the Laws of Uniformity of Plan, and Variety in Detail, which prevail throughout the animal kingdom, and, indeed, throughout the material system, and which the recent discoveries by the microscope have shown to rule over the ultimate structure and formation of all the tissues of the body. The discovery of the illustration of these laws in the plan of cell-formation of the tissues, and in the development of all animal and vegetable structure from the simple cell-form, he regarded as the grandest discovery in physical science that has taken place in our time. Of late years, the attention of Anatomists has been much directed to the exemplification of these laws in the vertebrate classes, to tracing the uniformity of plan, especially in the skeleton, through the variety in detail which the members of these classes exhibit. This constitutes the branch of anatomy called "Homology." The general features of the plan upon which vertebrate animals are constructed are clear enough in all of them. Osseous segments, or vertebræ, with neural and visceral processes, enclosing respectively the neural and visceral centres, constitute the trunk, including neck, chest, loins, etc. Probability is in favour of the view propounded by Goethe and Oken, and worked out by Oken and Owen, that the skull falls in with the law of uniformity, and corresponds with the rest of the frame in having a vertebral composition. It is by all anatomists admitted to be segmentally constructed. Most anatomists are agreed as to the number of segments. Ought not, therefore, these segments to be described by the same name as those of which they form a continuation, especially as they bear the same relations to the neural and visceral centres, and the same or nearly similar relations to the nerves and blood-vessels? In their mode of development, too, the segments of the skull show a marked general correspondence with those of the trunk. The *chorda dorsalis*, around which the vertebral centres are formed, extends, at any rate, half way along the base of the skull; and the bodies and arches of the cranial segments are evolved from a continuation of the same embryonic structure—the "vertebral plates"—as the trunk segments, the chief difference being that in the trunk segmentation takes place at an earlier period than in the head. In the trunk it is observed in the vertebral plates; and these primitive segments are called "protovertebræ." They appear not to exist in the head. The segmentation, however, takes place in the cranium as soon as ossification begins, even if it does not do so before; and the significance of the protovertebræ, as distinctive features between the skull and the trunk, is diminished; first, by their being related to the formation of the nerves as much or more than to that of the vertebræ; and, secondly, by their not really corresponding with the vertebræ, each permanent vertebra being formed by a half of two protovertebræ. Dr. Humphry expatiated on this and other points in the development of the skull, and expressed his decided opinion that the differences between the development of it and of the trunk vertebræ were by no means sufficient to controvert the view—which coincides with the Law of Uniformity, and which is confirmed by the segmental construction of the skull, by the relation of its components to surrounding parts, and by so many fundamental resemblances in development—that the same name may be applied to the segments of the skull and of the trunk, and that the one, as well as the other, consists of vertebræ modified to meet the requirements of the parts in which they are found. He concluded by stating that the greater number of those anatomists to whose observations we are indebted for most of our knowledge of the development of the skull and of the trunk are agreed that the differences between the mode of formation of the segments in the two form no real argument against the vertebral character of either; and he thought stronger reasons must be adduced than had yet been shown before the anatomists could be called upon to abandon the vertebral theory of the skull.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A memoir of Dr. Kirkes will appear in an early number.

In our next number we hope to publish an article giving full information as to the advantages and disadvantages of the Indian Medical service.

Our Special Empirical Correspondent's Report on Cheap Wine, No. VII., on Burgundy, with a Medical Digression on Stinks and Perfumery, is unavoidably postponed till next week.

We have received the Examination Papers in the School of Natural Science at Oxford, Michaelmas Term, 1864. The subjects are Chemistry and Physiology, and include dissections and diagnosis of actual specimens both by naked eye and microscope. We are sorry that our columns are so full that we cannot publish them *in extenso*.

A Competitor.—The essays for the Jacksonian Prize alluded to must be sent in on or before Christmas-day next. Write to the Secretary.

The Moa.—Great interest has been excited amongst the naturalists at Sydney, says the last mail, by the news of the discovery of the moa's egg recently in New Zealand.

Dublin.—It is utterly impossible to form any just opinion until both sides of the case have been heard. We hope Sir W. Wilde will be able to adduce evidence which shall completely alter the whole appearance of the charges brought against him.

A Provincial Teacher.—By an old regulation of the Royal College of Surgeons all teachers of Anatomy and Surgery were required to undergo an examination before the Council prior to recognition. Mr. W. J. Erasmus Wilson was the first gentleman who underwent and passed this ordeal. The law on this subject has since been repealed.

Midwifery Qualification.—The teaching and practice of midwifery present phenomena which give some support to the ideas of that school of philosophers who denounce State interference *in toto*, who disbelieve in the virtue or necessity of examination tests or qualifications, and who think the public ought to protect itself, and that persons wishing to employ a Medical attendant should form their own opinion of his capacity, without trusting to the "trade mark" conferred by a Licence or Diploma. Certain it is, that midwifery is just that branch of medicine in which life and death must depend on the Practitioner; and yet it is the branch on which students are subjected to the smallest amount of examination. The idea, for example, of testing a man's knowledge of Midwifery during the hour and a-half examination at Hall or College, is futile. The professors of a well-known Medical school assured us that there was not the slightest necessity for a compulsory examination in Midwifery, for that students knew so well that their success in life depended on their skill in this department that there was no need of any other inducement to study. Still we ought to exact a special diploma, and there is no body to which the Profession and public could entrust the task so wisely as to the Obstetrical Society of London, so far as England is concerned.—*From a Correspondent.*

MRS. WALKER AND FAMILY, OF CRICK, NEAR RUGBY.

The following subscription has been received at the office of the *Medical Times and Gazette*:—A. F. Elliott, Esq., £1; T. A. C., per T. Bryant, Esq., £2 2s.

THE GRIFFIN TESTIMONIAL FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following subscriptions have been further received on behalf of the above fund:—Dr. Mackinder, Gainsborough, 5s.; Dr. Bryan, Northampton, 5s.; G. John Hinnell, Esq., Thingoe, 5s. Amount previously announced, £108 4s. 6d. Received at *Lancet* office, £6 14s.

I am, &c.

ROBERT FOWLER, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, December 14.

THE GOSS TESTIMONIAL FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—With the third and final list of subscribers to the above fund I beg to tender you the best thanks of the Committee for your kindness in having aided them in the object they had in view. The sum required having been subscribed will at once be handed over to Dr. Day-Goss.

Robert Bianchi, 10s. 6d.; George Brennan, 10s. 6d.; Jno. Hutchinson, 10s. 6d.; Ed. Pinder, 10s. 6d.; L. Weaver, 10s. 6d.; the South London Medico-Ethical Society, £2 2s.

I am, &c.

NOWELL STOWERS, Treasurer.

30, Newington-place, S., December 14.

TREATMENT OF INDIAN FEVER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In olden times—that is, previous to 1843 at least—Madras used to be deemed "the benighted;" but by Deputy-Inspector Hare's paper in your very valuable columns it would appear "Qui Hi" (*i.e.* Bengale), too, is liable to shut his eyes, if not actually to fall asleep. Kindly permit me to refer him to the first five volumes of the *Bombay Medical and Physical Transactions*, extending from 1836 to 1843 or 1844. The Harcourt Dr. Hare mentions was in the same regiment with myself from 1834 to 1838, and from thence took the practice which probably he would mention.

In the *Bombay Transactions*, too, it will be seen, or even in Dr. James Johnson's *Review* of the fifth volume (1844, I think), that bleeding was in bad odour in the 2nd, or Queen's, before 1841; and further, that neither coma, convulsion, or mania in remitting fever in the exacerbation prevented the administration of quinine. Indeed, there is an annual report from Poona by myself in the *India Journal* published at Calcutta (in 1835 or beginning of 1836), showing that the bleedings Dr. Hare refers to were not then in vogue; nor were they even when I joined the 2nd in 1831, except to 12 oz. or so to remove or guard against local congestions. These bleedings seemed to have ceased with the regiment, as the ordinary rule, in the West Indies about the year 1821.

Since writing the above, it has occurred to me it would be interesting, statistically, to ascertain, not only in the aggregate, and at different stations separately, the rate of mortality in India (for these we have already for Bombay and Madras), but of different regiments at the same station. The chief modifying causes, apart from peace or war, are, no doubt, district or locality, and interior economy or discipline: but it might also show, in some measure, the influence of Medical hygiene and particular modes of treatment, if any. A favourable period for former days would be ten years of peace—say from 1827 to 1837 inclusive. This was followed by a war period of ten or eleven years; but since a year after the close of the mutiny would afford a recent period. If in the aggregate, however, it would be necessary to exclude by "cholera," just as in the West Indies it is necessary to exclude by "yellow fever," these being pestilences governed by other laws. In the Bombay Presidency a peculiar absence of venereal disease would, no doubt, be remarkable from a system of hygiene introduced by Sir Lionel Smith. I allude to the "Lal Bazaar" system, as it was called, which, though properly done away from moral considerations by Sir Colin Halkett in 1833 or thereabouts, produced its fruits among the older soldiers for years after. There is a peculiar form of "simple chronic bubo" in India, however, not to be confounded with venereal, that being neither preceded nor followed by any venereal symptoms. I see a similar, not so objectionable, but, of course, much less efficient, is about to be introduced in this country. In the 2nd, or Queen's Royal, the "Lal Bazaar" system was strictly carried out.

I am, &c.,

R. H. A. HUNTER,
First-class Staff Surgeon.

N.B.—No doubt the Medical periodicals, *Indian Journal of Medical Science* at Calcutta, followed by the *Madras Quarterly* and *Bombay Transactions*, through the zeal of its first editor, Dr. Morehead, with Deputy-Inspector-General Collier, of Bombay, and afterwards Murray, of Madras, ultimately of Bengal, between 1833 and 1841, gave the first impetus, and even chalked out almost all subsequent improvements. R. H. A. H.

"One sows, another reaps." The new era began with Dr. Collier in 1834.

COMMUNICATIONS have been received from—

Mr. C. L. BARTER; Dr. R. H. HILLIARD; Mr. J. C. GELL; THE SECRETARY OF THE ODONTOLOGICAL SOCIETY; Mr. W. QUARRELL; Mr. W. PARKER: Dr. NOAD; Mr. HARRISON; Dr. ROBERT FOWLER; Mr. E. BELLAMY; Mr. C. GAFFNEY; APOTHECARIES' HALL; Mr. P. LE NEVE FOSTER; G.; Dr. J. G. MACVICAR; Mr. J. Z. LAURENCE; Mr. N. STOWERS; Dr. GEORGE KEMP; MEDICAL SOCIETY OF LONDON; Mr. J. SCHOLFIELD.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 10, 1864.

BIRTHS.

Births of Boys, 1020; Girls, 941; Total, 1961.
Average of 10 corresponding weeks, 1854-63, 1714·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	760	762	1522
Average of the ten years 1854-63	672·0	662·3	1334·3
Average corrected to increased population..	..	..	1467
Deaths of people above 90	6	6	12

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	1	19	6	..	4	12	5
North ..	618,210	..	12	15	2	6	20	1
Central ..	378,058	4	5	15	2	7	7	..
East ..	571,158	1	13	14	..	4	23	5
South ..	773,175	5	16	19	4	7	27	2
Total ..	2,803,989	11	65	69	8	28	89	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·778 in.
Mean temperature	44·9
Highest point of thermometer	53·7
Lowest point of thermometer	35·9
Mean dew-point temperature	41·8
General direction of wind	S.W.
Whole amount of rain in the week	0·06 in.

APPOINTMENTS FOR THE WEEK.

December 17. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

19. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Mr. Hunt, "On the Present State of Medical Logic."

20. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ANTHROPOLOGICAL SOCIETY OF LONDON, 8 p.m. Meeting.

PATHOLOGICAL SOCIETY, 8 p.m. Meeting.

21. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

22. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

23. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

COURSE OF

LECTURES ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D., F.R.C.P.,
Professor in University College, and Assistant-Physician to University College Hospital.

Lecture IX.

ON THE CLINICAL SIGNIFICANCE AND PATHOLOGICAL IMPORTANCE OF THE PRESENCE IN THE URINE OF INOSITE—CREATIN AND CREATININ—CHOLESTERIN—CYSTIN, (CALCULI)—XANTHIN, (CALCULI)—LEUCIN—AND TYROSIN.

(Continued from page 644.)

Xanthin as a Urinary Deposit, and as Calculi.

Xanthin was first discovered in a calculus weighing eight grains by Marcet, senior, and since then, although occasionally met with in the urine as a sediment, it has only on two other occasions been found in the form of a stone in the human body.

Chemistry.

Xanthin, when pure, is a white, beeswax-like non-crystalline organic substance, insoluble in cold, but slightly soluble in hot water. In 100 parts it consists of—

Carbon	39·5
Nitrogen	36·8
Oxygen	21·1
Nitrogen	2·6

It differs from cystin, therefore, in containing no sulphur, and from uric acid in its small proportion of nitrogen (uric acid contains over 33 per cent).

Xanthin is soluble in ammonia, and very readily dissolved in caustic potash. From its alkaline solutions it is precipitated by acids, even by a current of carbonic acid. It is also soluble in the strong mineral acids with the aid of heat, and its solution in hydrochloric acid on cooling yields microscopic crystals of the hydrochlorate of xanthin.

On adding nitrate of silver to the nitric acid solution of xanthin, a crystalline, fine needle-shaped precipitate falls down.

When heated on a spatula with nitric acid, as in testing for uric acid, xanthin forms a yellow substance, which, on the addition of potash and evaporation, gives a dark purple-red colour.

Xanthin can easily be separated from uric acid by dissolving the whole in pure sulphuric acid, and then adding distilled water, which instantly precipitates the uric acid while it leaves the xanthin in solution.

Physiology.

Xanthin is pretty widely distributed throughout the animal organism. It has been found in very many healthy tissues of the human body. In the brain, liver, spleen, pancreas, thymus gland, the muscles, and the blood; and it is supposed to be one of the intermediate products of the metamorphosis of protein substances.

Xanthin is closely allied to guanin, which is also to be met with in the human body, and it can be prepared artificially by the aid of nitric acid from that substance.

$$\underbrace{C_{10}H_5N_5O_2}_{\text{Guanin.}} + O_3 = \underbrace{C_{10}H_4N_4O_4}_{\text{Xanthin.}} + N + HO$$

Scherer says xanthin is a normal constituent of healthy human urine, but is not met with in sufficient quantity to render its detection sufficiently easy for clinical purposes. Neubauer thinks that on an average there is about 1 gramme (15½ grains) in 600 pounds of human urine. In the urine of spiders, on the other hand, it exists in abundance (Davy), and the concretions called Oriental bézoards also contain a large quantity of this substance.

Pathology.

Xanthin is occasionally met with in diseases as a urinary sediment, and more rarely still as a calculus.

Vogel speaks of the xanthin being much increased in cases of enlarged spleen, and also in acute atrophy of the liver. Douglas Maclagan(b) believes he found it in the urine of an hysterical girl; and Jackson(c) thinks he met with it in a case of diabetes. Bence Jones(d) has lately described a case in which a crystalline deposit of xanthin repeatedly appeared in the urine. The case is briefly as follows:—

A schoolboy, aged 9½ years, enjoyed health up to the age of 7, when he was seized with violent sickness and pain in the stomach. On the third day the urine became of the colour of blood. It then stopped, and none was passed for four days, when delirium and convulsions came on. These lasted twenty-four hours, ceasing after a violent perspiration. No stone was known to have passed. In a few days he got perfectly well, and continued so for three years, when he caught a slight cold, and was delirious one night. The urine contained albumen, and was generally thick, and of high specific gravity. Under the microscope, the sediment was found to contain small oblong plates resembling uric acid (Fig. 20, *a*). But as these were dissolved by boiling, and soluble in hydrochloric acid, as well as in alkalies, and the hydrochloric acid solution, on being evaporated to dryness, yielded prismatic and hexagonal crystals (Fig. 20, *b*), the deposit was supposed to be xanthin, with whose reactions, as is seen, it closely agrees.

Fig. 20.

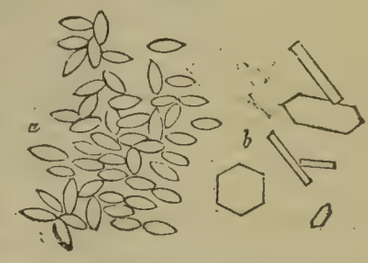

Fig. 20.—Xanthus from human urine. (*a*.) Spontaneous deposit. (*b*.) Dissolved in hydrochloric acid and recrystallised.

As already said, xanthin has been met with in the form of calculi in the human subject; but cases of the kind are so exceedingly rare that as yet only three have been recorded. This specimen, consisting of a few fragments, formed part of the celebrated xanthin calculus, the size of a small hen's egg, which was successfully extracted by Professor Langenbeck from the bladder of a Hanoverian peasant boy aged eight years. The stone broke in the process of extraction, and these portions were presented by Langenbeck to our late Professor of Surgery, Mr. Liston. While analysing the calculi in our museum a few years ago I had occasion to examine this specimen, and found that it possessed the following characters: It is of a dark cinnamon-red colour, exceedingly hard, of somewhat glistening fracture, and distinctly laminated.

Small fragments are readily dissolved in caustic potash, less so in ammonia, scarcely at all in water, even after prolonged boiling, and very sparingly soluble in the mineral acids. The much slighter solubility of the calculus, when compared to pure artificially prepared xanthin, arises no doubt from its exceedingly dense nature, for when finely powdered its solubility is greatly increased. On incinerating a small fragment it slowly charred, without any flame, or disagreeable odour, thus presenting a striking difference to cystin, and was at length gradually dissipated without leaving any perceptible inorganic residue.

The peculiar red colour of the calculus is no doubt entirely due to the xanthin having taken up a quantity of the colouring matter (urohæmatin) of the urine, just as uric acid under similar circumstances does, for pure xanthin is white.

Leucin: its Clinical Significance.

Chemistry.

Leucin is, when pure, a white non-crystallisable, odourless, and tasteless organic fatty-looking substance, composed in 100 parts of

Carbon	54·96
Oxygen	24·44
Nitrogen	10·68
Hydrogen	9·92
	100·00

Although looking something like fatty matter, it is quite different from it in its chemical reactions, for it is very soluble in water, sparingly soluble in alcohol, and quite insoluble in ether. Moreover, it is soluble in strong acids as well as in alkalies.

Leucin can be artificially prepared from almost any protein substance by decomposing it with acids, alkalies, or even by the process of fermentation. Leucin is itself also readily changed by oxidation, and when fully oxidised is entirely transformed into ammonia, water, and carbonic acid.

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—Ed. *Med. Times and Gaz.*

(b) *Edin. Med. Journ.*, 1851.

(c) *Archs der Pharm.*, 1837.

(d) *Journ. of the Chem. Soc.*, 1862.

The best chemical test for leucin is that proposed by Scherer—namely, to put a small quantity on a platinum spatula, add nitric acid, evaporate to dryness, and then treat the residue with caustic soda, which dissolves it. When the solution thus obtained is concentrated, an oily-looking drop is formed, which can be readily rolled about on the spatula.

In the urine, leucin is never met with in sufficient quantity to allow of the application of this test; we have therefore to content ourselves with its microscopic appearances, which are tolerably faithfully represented in the accompanying woodcut.

(Fig. 21.)

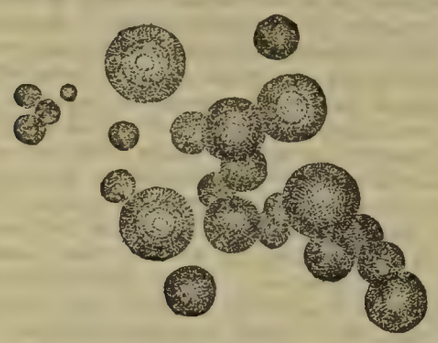

Fig. 21.—Leucin from concentrated human urine in a case of chronic atrophy of the liver.

The circular oily-looking discs might at first glance be mistaken for oil, not only on account of their microscopic characters, but also on account of their being lighter than water. Their insolubility in ether at once distinguishes them from all oily matters. Besides this, although the discs show no crystalline characters, they are occasionally laminated like the granules of potato starch, and hence are apt to be confounded with microscopic crystals of carbonate of lime. The lime crystals, however, sink, whereas the greater number of globules of leucin float, in water,

Leucin, as met with in urine, is always deeply impregnated with the colouring matter of the liquid; hence, in cases of jaundice, the globules have a dark yellow hue.

In searching for leucin in human urine, an ounce or two of the liquid should be slowly evaporated to the consistence of a syrup, set aside to cool, and afterwards examined with the microscope. As yet we have not the means of making a quantitative analysis of this substance sufficiently easily for clinical purposes.

Physiology.

Leucin has for many years been known to scientific men as a normal product of some of the animal organs, but it is only within the last three or four years that it has assumed a clinical importance.

According to the researches of Liebig, Scherer, Gorup-Besanez, Frerichs, Neukomm, and many others, it may now be said to be one of the normal constituents of the spleen, liver, pancreas, lungs, brain, thymus, and thyroid; but whether it exists in the healthy living body as such, or is only a morbid product of decomposition, is not yet a settled question. Be that as it may, one thing is clear—namely, that its quantity is greatly increased during disease, and that its appearance in some of the excretions is a diagnostic sign of considerable value. Leucin is considered to be one of the transition products in the metamorphosis of albuminoid substances, and this, in the majority of instances, is no doubt true; but I believe it also to be, under certain circumstances, the direct product of the interrupted metamorphosis of hepatic substances into taurocholic acid. The reason for this opinion I shall presently briefly give, when speaking of the origin of tyrosin, a substance with which it is intimately associated.

Pathology.

Frerichs was the first to point out the diagnostic value of the presence of leucin in the urine in hepatic disease. He showed that the urine contained it in abundance in cases of acute atrophy, which observation has since been confirmed by Scherer, Neukomm, Wilks, myself, and some others. Moreover, I have recently shown that leucin is also to be detected in the urine in cases of chronic atrophy of the liver.

It is also occasionally to be met with in the urine in cases of typhus associated with jaundice (Frerichs, Murchison), and in a few severe cases of small-pox.

In liver in the above-mentioned cases, as well as in some cases of phthisis and rheumatic fever, leucin has been met with in abundance, and the natural conclusion is that the hepatic organ is the one which excretes it in greatest quantity. Indeed, at present, it is only in cases of hepatic disease that the existence of leucin in the renal secretion can be regarded as of diagnostic value. It then points out the existence of serious mischief, and is anything but a favourable sign for prognosis, all the cases in which it has been as yet detected having run on to a fatal termination. As regards treatment nothing need be said, as it is not the leucin deposit, but the disease inducing it we have to treat.

(To be continued.)

THE OPTICAL DEFECTS OF THE EYE.

A COURSE OF LECTURES DELIVERED DURING THE SUMMER OF 1862 AT THE

Surrey Ophthalmic Hospital,

By J. ZACHARIAH LAURENCE, F.R.C.S., M.B. Univ. Lond.,
Surgeon to the Hospital.

(Continued from page 589.)

ASTHENOPIA.

Asthenopia, or weak sight, is succinctly defined by Mackenzie as "that state of vision in which the eyes are unable to sustain continued exercise upon near objects, although the patient, on first viewing such objects, generally sees them distinctly; can employ his sight for any length of time in viewing distant objects, and presents no external appearance of disease in the eyes." This description is sufficiently accurate to give you a general idea of the disease we are considering; but it will be as well to follow out the symptoms into a little further detail. These are all the symptoms of muscular *fatigue* and nervous irritation. At first, as the word "fatigue" itself implies, they are not felt, but come on with a rapidity which may vary from a few seconds to an hour or more. Some patients cannot read two lines consecutively without an accession of asthenopic symptoms. They declare the letters "run into one another, and become misty and confused;" if they persist the eyes ache and water, till they are obliged to leave off from sheer pain and discomfort.(g) A little rest generally enables them to begin again, but I have met with a case in which the pain lasted for many hours after. In this same (and a second case) there existed an indescribable general feeling of nervousness and agitation, a sensation of nausea and vertigo, although the two patients in themselves were anything but nervous or hysterical females. Stellwag v. Carion speaks of "cases of a high degree," . . . . in which "the hyperæsthesia of the retina and ciliary nerves renders even indefinite vision at distant objects with high illumination, contrasts of light, glaring colours, or strong reflexions, insupportable." A little reflection will convince you how serious a disease we are considering, especially when you are dealing with poor patients, such as that humble section of the female community who gain their livelihood by the "needle,"—"with fingers weary and worn, with eyelids heavy and red." Mackenzie very properly remarks: "It is an infirmity much more to be dreaded than the many disorders of the eye which, to superficial observation, present a far more formidable appearance." And yet there is perhaps no one disease the true nature of which is more generally misunderstood. Mackenzie, after enumerating a great variety of causes, comes nearest to by far the most common one when he suggests that "the organs of adjustment . . . are probably the chief seat of the complaint." Donders, in calling attention to its very frequent dependence on an hypermetropic condition of the eye, has undoubtedly rendered a great service to practical ophthalmology; but at the same time my experience has taught me how greatly we should err, were we to almost exclusively assign it to this cause.

I believe the causes of asthenopia may, generally speaking, be grouped under the following three heads (h):—

I. *Optical Defects of the Eye.*
II. *Deficient Power of the Internal Recti Muscles.*
III. *Hyperæsthesia of the Retina.*

(g) The mistiness of vision that ensues is probably partially a reflex phenomenon, as almost certainly the aching, injection (sometimes observed), and suffusion are evidences of reflex-irritation of the fifth and sympathetic nerves.

(h) I find that the same classification has been independently adopted by Stellwag von Carion ("Lehrbuch der Augenheilkunde." Vienna. 1861. P. 658). He recognises two species of asthenopia—1, an accommodative; 2, a muscular. and with both "an hyperæsthesia of the retina and ciliary nerves in close pathogenetic relation therewith."

I. *Optical Defects of the Eye.*

I must, *in limine*, remark that most persons we are now speaking of apply to the Surgeons solely for their asthenopia; they never suspect the least wrong with their sight; on the contrary, they declare they see remarkably well generally, and that it is only when they try to read or work any length of time they feel their eyes "weak."

The most frequent optical defect is an hypermetropic condition of the eye. Part of the accommodation of such an eye is expended in neutralising its defective refraction, and, as a consequence, when the patient employs his eyes on near objects, he unnaturally "forces" his accommodation, so that the ciliary muscle is wrought up to a degree of tension that soon obliges it to give in, and thus are caused all those symptoms of muscular and nervous irritation and fatigue, and consequent indistinctness of vision, which we have already described. You may for a few minutes sustain a heavier weight than your muscles will naturally support, but try to prolong the effort, and you will soon experience that sense of inability and fatigue which the ciliary muscle feels in another way.

But I have also met several cases of asthenopia which were due to myopia. This may exist in a very slight degree. A woman, aged 33, applied to me for intense asthenopia. She was cured, and that there and then by the use of a pair of 40-inch concave glasses. Within a very brief period two ladies consulted me for asthenopic symptoms, which I found depended on presbyopia, and were remedied by suitable convex glasses. Mr. White Cooper has (*op. cit.*, p. 123) remarked the same thing, and at p. 92 quotes a peculiarly acute case that occurred in his own practice. In short, any optical defect of the eye attended with limited power of accommodation may be the cause of asthenopia, and therefore it is always absolutely necessary in these cases to subject the eyes to a rigid optical examination.

I may here attract attention to a very important class of cases which I believe have hitherto escaped attention. I have met with asthenopia between the ages of about 20 and 35 where no defect of refraction was by the most delicate tests detectable, nor did the accommodation at first seem hardly impaired. Yet in these cases the patient was at once relieved of all asthenopic symptoms by very low-powered convex glasses ($\frac{1}{40}$th to $\frac{1}{60}$th). Such cases are, I believe, true instances of "premature presbyopia." With these same glasses distant objects were misty and confused.

II. *Deficient Power of the Internal Recti Muscles.*

This is the disease which the German authors characterise as "insufficiency" of the internal recti. You will find an elaborate description of it at p. 242 of Alfred Gräfe's "Motilitäts Störungen des Auges"—a work which, embodying all the profound researches of his illustrious teacher, Professor V. Graefe, will amply repay the serious study of those who wish to have any clear idea of the action and derangements of the muscles of the human eye.

Weakness of the internal recti may affect one or both muscles—most commonly both. Such a case is detected by observing that when we, covering one eye with the hand, direct the patient to regard a near object with the other, the covered eye deviates outwards—in a word, the patient has, under these circumstances, a divergent squint of that eye. As soon as we remove our hand, the divergent eye at once turns inwards, and resumes its symmetrical position to the other eye. (i) There are many cases of this infirmity, which would be, and constantly are, overlooked, from neglecting this simple method of examination. Again, if we before a healthy eye place a prism with the base outwards or inwards, the person at first sees double; but, if the angle of the prism is not too great, soon in order to overcome the consequent double-vision respectively squints inwards or outwards with the eye before which the prism is held. In cases of weakness of the internal recti, you will find that this muscular power of neutralising diplopia by convergence of the eye is diminished, that by divergence increased; so that, *e.g.*, in a case mentioned by Alfred Graefe, "the patient possessed the power of overcoming prisms up to 18° with the base turned inward before the left eye by a corresponding degree of strabismus divergens. Prisms of 2° and 4°, with the base placed outwards, he only momentarily overcame by an opposite (convergent) squint." If a prism with its refracting angle upwards be held before one eye, any object (such as a dot of ink on a piece of paper) seen with both eyes together appears double, the image through the prism being directly above that seen with the other (naked) eye, thus:

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The faculty of single vision with two eyes is thus almost insuperably annihilated, on account of the very slight power we possess of isolating the action of either of the superior or inferior recti muscles, so as to fuse the double images (as is readily done, as we have mentioned above, by the lateral ocular muscles). Under these circumstances, the accommodative action of the internal recti being no longer called into play, each eyeball assumes that position indicated simply by the relative strength of the internal recti. Should this be normal, the dots will assume the position delineated above; but should either, or both, internal recti be preternaturally weak, the eyeball, or balls, will, from the preponderating strength of the external rectus, pass into a state of divergent squint, and thus crossed double images arise. The final result is that the two dots exhibit in such a case not only a difference of height, but, in addition, a lateral crossed separation. The images then appear thus:

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A second prism held with its angle outwards before the second eye destroys this lateral separation, leaving the difference of height unchanged. *The strength (= number of degrees) of the prism necessary for this purpose affords a direct measure of the degree of weakness of the internal rectus.*

It has been thought weakness of the recti interni is confined to myopic patients. I believe it is by far most frequently met with in such cases, especially if the myopia is high, in which, as a final result, you will very commonly find a confirmed divergent squint and consequent amblyopia.

But I have met with a case of hypermetropia of $\frac{1}{14}$, in which the most intense asthenopia was caused by weakness of the internal recti, with a second of almost equal intensity in an hypermetropia of $\frac{1}{50}$, and several other less severe cases. I may here remark that, owing to the connexion between accommodation and convergence of the optic axes, two causes, acting and reacting upon each other, are at play in producing the asthenopic symptoms that attend weakness of the internal recti.

Asthenopia from this cause occurring in a myopic patient may be generally relieved by the use of glasses, which enable him to read at sufficient distance from the eyes, as to moderate their convergence to a degree that entails but a very slight action of the affected muscles; or by the systematic application of prismatic glasses with the bases turned outwards the internal recti may be gradually strengthened in the effort they will instinctively make by converging the optic axes to overcome the crossed double vision the prisms would otherwise cause. Prismatic glasses with the bases turned inwards have no effect in radically curing the disease—on the contrary, rather encourage it, but render vision more distinct for the time and relieve the asthenopia by supplementing the action of the internal recti. Thus, in a case of this kind I found the patient, who had a myopia of $\frac{1}{3}$, read a type of about No. 6 easily with a prism of 11°, the base inwards applied to the right eye, although she could hardly read the type at all with the unaided eyes. The last resource is total or partial division of the external rectus muscle.

III. *Hyperæsthesia of the Retina.*

Besides the above cases of asthenopia, we every now and then meet with ones which are attended by a general low state of the system, often associated with photophobia. These generally get well under the use of tonic medicines and regimen, and therefore may not unreasonably be ascribed to hyperæsthesia of the retina, or perhaps even they may depend upon some temporary asthenic state of the organs of adjustment. The asthenopia often met with after exhaustive fevers, diphtheria, etc., probably belongs to this category.

Before concluding, I may be permitted to add a few ex-

(i) In the first case the eye, excluded from common vision with its fellow eye, is at liberty to assume that position indicated by the relative strengths of the two antagonist muscles, the internal and external recti. In the second case the participation in the act of vision forces the weak internal rectus to prematurely exert itself, to avoid the crossed double images that would necessarily result from any divergence of its eye. In this way an eye affected with weakness of the internal rectus assumes a divergence, if the patient is in reverie, if the affected eye becomes the subject of cataract, etc. In this latter case a successful operation for cataract may at the same time restore the symmetry of the eyeball. The test we have just been discussing becomes still more evident if the object be held, not directly on a level with, but above that of the eyeballs. We may further add, in reference to this test, that the fusion of the double images produced by holding a prism with its base inwards before one eye, by the compensating action of the external rectus, becomes easier the nearer the object, and *vice versa*; so that we can overcome the "doubling" action of stronger prisms for near objects than for distant ones. If the prism is held with its base outwards, the very reverse of the above holds good, till the object is placed at, or within, the near-point, when the internal recti appear to be the stronger. In weakness of these muscles the preponderance of abduction for the usual distance of reading, writing, etc., is, as we have seen, well marked, and, if the weakness be at all excessive, even for greater distances.

planatory remarks on the scope of these Lectures. They are intended to comprise an elementary, but at the same time complete, account of the Optical Defects of Vision. They imply no previous knowledge of the subject on the part of the reader, preceded, as they are, by a concise sketch of the optics involved in their study. The frequent references to the names of Mackenzie, Donders, and v. Graefe are in themselves acknowledgments of how indebted I am to the writings of those distinguished ophthalmologists. I have myself for several years now minutely investigated, and kept written records of, a very large number of optical defects of sight; but have deemed it more advantageous not to burthen these elementary lectures with a number of "Cases," which, but too often, rather tend to distract the reader's attention than otherwise. Lastly, I would hope that these Lectures will be found useful to read before opening Professor Donders's comprehensive work on the subject in the twenty-second volume of the New Sydenham Society's works. (k)

ORIGINAL COMMUNICATIONS.

ON

THE TREATMENT OF MALARIOUS FEVER.

By E. HARE,
Deputy-Inspector-General of Hospitals, Bengal.

(Continued from page 649.)

A STORY I have heard as having occurred at a regimental mess table has often struck me. One of the young officers remarked in a sneering tone, "Why, Dr. M—— is actually bleeding his patients for cholera." Dr. M——'s friend, who was at the table, quietly remarked, "Do you think Dr. M—— a fool or a knave?" The answer was necessarily "Neither." "Then," said his friend, "you may rely upon it that Dr. M—— has very good reasons for acting as he does."

And so, in reviewing the history of fever, reason, and good reason, appears clearly through all the extraordinary vicissitudes of its treatment. For Lind and Hunter are proved undoubtedly right; Johnson, too, was right; and failing quinine we must return to his practice; and if we adopted again the cure of fever by salivation, we must also deplete freely, for otherwise without bloodletting, it is almost impossible, in bad fever, to procure the absorption of the mercury and salivation in sufficient time to save the patient.

Twining, also, finding depletion the fashion, and the received and as then thought necessary practice, undoubtedly performed a great service to his Profession by fixing and defining clearly the exact moment when bleeding can be performed with most benefit and safety. Twining's idea of applying Macintosh's discovery of the singular efficacy that bleeding in the cold stage of ague has in breaking the succeeding paroxysm, to remittent fever, and his attempt to break the accessions of the acute, as Macintosh did of the chronic form, was, to say the least of it, brilliant; and any one who reads his book can see talent sparkling in every page. In fact, this improvement of Twining is visible in every succeeding writer, and forms the basis of the treatment of our most modern authority, Sir Ranald Martin, 1861, who was his contemporary in Calcutta. And the same rule is applicable to purgatives and emetics. They ought to be given if possible so as to act just before the paroxysm commences, never so as to act at its close, or the commencement of the sweating stage, for they may then, during Nature's exhaustion, be fatal.

When I reached India, just after Twining's death, the treatment of tropical disease was at its lowest ebb, for Medical officers were distrustful of all treatment, and used no fixed principles. As an instance of this distrust of all medicines during this era of inertia, I will quote the following from Dr. Morehead, a celebrated Practitioner during this period, p. 189, vol. i.:—"When remittent fevers have passed into almost the continued form they are liable to evince a train of adynamic phenomena, and then the only mode of managing them is to recollect the principles laid down by Cullen, that fevers tend to cure themselves," and this was a doctrine openly avowed by many of my contemporaries, but it is so no longer, for now, in the words of Dr. Ewart, our historian,—"The treatment of malarious fevers has now arrived at a pitch of perfection and certainty which, judging from the records of the past, could never have been paralleled. We have now to guard against retrogression into less successful methods, and the fascinations of innovations."

This is undoubtedly true, for with calomel to assist I scarcely know one inconvenience attending our present practice, and its efficacy is as certain as correcting an acid with an alkali. We hold in our hands positive and certain antidotes, which we have only to use with common discretion, and I boldly assert that no uncomplicated case of malarious fever ought ever to be lost if we see it in reasonable time, and the cure now follows so certainly and with so little suffering to the patient, that it is a positive and noble pleasure to treat cases of remittent fever.

I have done my share towards this great end, but I claim no credit for talent or originality. I have simply put together in their right places the materials of others, and the real secret of my success has been an unwavering and determined belief in the testimony of others, and particularly Army Surgeons, as Lind and Hunter, who had no private interests to serve.

I believe myself that valuable truth has been the basis of all our great changes in Medicine, and we would be much more usefully employed in searching for this truth, and trying to separate it from its encumbrances of false theory, than in sneering and pushing aside the whole as absurd in our modern self-sufficiency.

Abscess of the Liver.

During my service in Burmah in the last war with my regiment, and afterwards in the siege of Delhi, abscess of the liver was very frequent, and I had numerous cases by which to test the efficacy of the usual methods of treatment.

Annesley, vol. i., p. 655, recommends that all abscesses of the liver should be opened with a common abscess lancet. He says:—"Being satisfied that the abscess has sufficiently advanced, and has adhered to the external wall of the abdomen, having made a large external incision, an abscess lancet should be introduced, and the tumour laid open to the full extent of the external wound, which ought to be from two and a-half to three inches in length. The purulent collection having been fully evacuated, the cavity should be filled with lint, which gives a mechanical support to the excavated parts, and the wound dressed with compresses and bandages in the usual way." One of his cases, 124, p. 658, is remarkable. He says: "In opening the abscess, the wound was made about three inches in extent, and on introducing my finger I found the abscess considerably higher than where we had made the opening, although this appeared to be the most depending part of the tumour. From the wound being large, we were enabled to pass two or three fingers, so as to support the tumour, and with the point of a scalpel we opened it, making our hand the medium of conducting the pus, for we found the abscess pendulous and the adhesions doubtful; sixteen ounces of curdled pus was thus discharged."

This is one mode of opening an abscess of the liver, and, from the case quoted, it will appear how difficult it is, even for a Practitioner like Dr. Annesley, to decide when adhesions have formed, without which this operation is extremely dangerous, for some of the pus must almost necessarily escape through the large opening between the liver and the ribs into the cavity of the abdomen.

The other method of treating the abscess, which this operation was intended by Dr. Annesley to supersede, was to puncture the abscess with a trocar; but the pus, he says, was often so thickened that it would not pass through it. Dr. Budd writes, 3rd Edition, p. 123:—"In opening an abscess of the liver there is another and more unavoidable source of danger which has not been noticed by the writers to whom I have referred. It is that the solid hepatic tissue cannot readily collapse so as to close the cavity when the abscess is opened. When, then, a free opening is made, even into a recent abscess, air almost necessarily enters the cavity, and from the sudden removal of pressure, or, it may be, from the manipulation employed to empty the cavity, violence is done to the walls of the abscess, and there is often some degree of hæmorrhage from them. Air and blood thus become mixed with the pus in the abscess, decomposition takes place, and the air or the decomposed pus sets up fresh inflammation of the inner surface of the sac. This causes, of course, a fresh accession of fever and constitutional disturbance, and if the abscess be large, a profuse fetid and continuous discharge, which may soon exhaust the strength of the patient. The secondary inflammation thus excited by the decomposed pus may even lead to gangrene. In consequence of this secondary inflammation, it is best when the abscess of the liver projects at the side to allow it to open

(k) For the convenience of those wishing to re-read these Lectures connectedly, I append the numbers of the *Medical Times and Gazette* in which they have appeared—viz., Nos. 718, 720, 722, 738, 740, 747, 750, 753, and 756.

of itself. When the abscess opens of itself it is usually by a very small aperture, like those in worm-eaten wood, which never closes, and the matter gradually oozes out as the sac contracts. No air gets mixed up with the matter of the abscess, no violence is done to its walls, and no fresh inflammation is set up."

The disadvantages of Dr. Budd's method are, the number who die from the irritation of the abscess before this slow process of nature is accomplished, and the large majority of cases where this pointing and opening never take place, although the position of the abscess can be easily recognised externally. In such cases the matter generally finds its way between the liver and the ribs into the peritoneal cavity, where it necessarily causes death. The majority of these cases, however, can be relieved by the operation which I propose.

The failure of Annesley's operation was the large opening required, causing escape of the pus into the abdomen, and frequent hæmorrhage from the liver, in addition to the injury of its substance. And next the extreme irritation caused by stuffing the liver with lint.

In the first case of liver abscess which I treated, which seemed suited for external opening, I asked for a consultation of the Superintending Surgeon and others; and it was decided that the abscess was to be opened by a puncture with a trochar. The abscess was very large, and the matter fortunately liquid; and three and a-half pints were extracted. It was then decided to remove the canula to avoid the passage of air, which was further secured by drawing up the skin before puncturing, so that when the canula was removed the skin taking its natural position acted as a valve to close the internal opening. The patient improved wonderfully, and showed evident symptoms of recovery; but the abscess began to fill again, and after a week was as large as before; and he began to sink again under hectic and the irritation. I then punctured the abscess again; but this time kept the canula carefully in the puncture, retaining it there by straps of adhesive plaster. I had previously injected water by means of the india-rubber bottle-syringe used for hydroccles with warm water, allowing it to run out again through the canula; and the abscess was thus thoroughly washed out of all remaining matter; for fresh syringes full were injected gently till the water returned clean. This was done to prevent the decomposition which always takes place in the pus remaining in the abscess after it is opened and exposed to the air. This process of washing out the abscess was repeated twice a-day, so that no decomposition could take place in the pus as it reformed. The operation never caused any inconvenience to the patient, and he merely required to be placed on his right side by pillows, to allow the water after injecting to return through the canula. Occasionally, if the canula became obstructed, a probe was gently passed to clear it. A liberal diet was allowed, and under this treatment the patient rapidly recovered, without one bad symptom. The discharge became daily less, and when it ceased the canula was removed, but till then the abscess was carefully washed free from all pus twice a-day. After this favourable result, I tried the same method in all my cases, and they were at that time very frequent; and I am satisfied that the results obtained by it are far better than by any of our hitherto published treatments. I found, too, that the pus could always be made sufficiently fluid by the injected water to pass through the canula. Also by this method it is a matter of indifference whether adhesion between the costal surface and the liver has taken place, in front of the abscess, because the canula is embraced closely by the peritoneal covering of the liver, and no matter can escape by its sides. The danger, moreover, of hæmorrhage, which is constant when a three-inch incision is made into the liver, is avoided by this simple puncture. It was often astonishing how rapidly the patients rallied from apparently the last extremity. I never saw any bad result from the operation itself; the chief cause of death after it was the very frequent occurrence of other abscesses in the liver at the same time. My experience also taught me to place more reliance on the assertions of some Surgeons in Bombay, that the liver may be more freely punctured than is generally supposed. When I first arrived in India, long exploring needles were found in every Hospital for puncturing the liver. This is, perhaps, carrying the treatment to extremes, but in any case in which I saw danger to life from the irritation of an abscess in the liver, and could detect the slightest bulging, I would without any hesitation give the patient a chance of life by puncturing the swelling with a trochar. I have in some cases missed the abscess, but the matter afterwards found its way through the puncture. Again in other cases the patient has died from the unopened abscess, and I have examined the course of my puncture, and found no injury whatever, but a thin line of lymph in its course.

On the whole, I feel certain that a very large proportion of cases of abscess of the liver, who now die by too long neglect of the operation, might be saved thus with a little boldness. An officer of my regiment, at the siege of Delhi, was shot through the liver in its longest diameter, and yet quite recovered.

I may remark, finally, that of the large number of patients with abscess of the liver which I have witnessed, the large majority have resulted from ulceration of the colon in dysentery, and in these the abscess is rarely single, mostly there are three or four of various sizes. Some few very large abscesses have appeared with almost no previous symptoms, and these are always single; and a few solitary abscesses have resulted from falls and other direct injuries of the liver; but I have never yet seen an abscess result from remittent fever.

TABLE No. I.

Cases of Fever Treated in the Military Hospital, Calcutta, during the Year November 1, 1849, *to November* 1, 1850, *of her Majesty's 70th Regiment.*

	Treated by the Surgeon of H.M. 70th Regiment.	Treated by Assistant-Surgeon E. Hare.
Remained	13	—
Admitted	266	292
Discharged	267	281
Transferred	2	4
Died	4	2
Remaining	6	5
Total	279	292

Deaths, 1 in $69\frac{3}{4}$ treated. 1 in 146 treated.

From Medical Board's Report of 1849-50. (Signed) J. FORSYTH, Senior Surgeon, Sec. Medical Board.

TABLE No. II.

Cases of Fever Treated in the General Hospital (non-Military), Calcutta, from November 1, 1849, *to October* 31, 1850.

	Treated by Assistant-Surgeon E. Hare.
Remained	—
Admitted	129
Discharged	120
Transferred	3
Died	1
Remaining	5
Total	129

Deaths, 1 in 129 treaated.

From Medical Board's Report of 1849-50. (Signed) J. FORSYTH, Senior Surgeon, Sec. Medical Board.

TABLE No. III.

General Hospital, Calcutta.

	Fever.		Dysentery.	
	Admissions.	Deaths.	Admissions.	Deaths.
1830	639	45	144	22
1831	406	38	128	20
1832	409	38	124	20
1833	856	107	128	19
1834	605	77	147	39
1835	233	16	71	20
1836	113	12	55	10
1837	99	4	64	15
1838	112	18	52	13
1839	194	13	78	15
1840	221	21	68	11
1841	289	33	172	42
1842	414	29	147	41
1843	209	10	88	19
1844	235	16	141	27
1845	208	15	91	31
1846	183	21	87	27
1847	204	17	79	17
1848	243	18	88	25
1849	488	17	94	28
Total	6360	585	2046	461

Fevers, 1 death in 11·256 admissions. Dysentery, 1 death in 4·438 treated.

From Medical Board's Report, 1849-50. (Signed) J. Forsyth, Senior Surgeon, Sec. Medical Board.

Table No. IV.

Military Hospital, Calcutta.

	Fever. Admitted.	Died.
1830 . . .	522	38
1831 . . .	353	15
1832 . . .	255	9
1833 . . .	538	15
1834 . . .	503	18
1835 . . .	317	8
1836 . . .	288	12
1837 . . .	246	7
1838 . . .	107	4
1839 . . .	364	1
1840 . . .	537	13
1841 . . .	542	13
1842 . . .	840	19
1843 . . .	783	39
1844 . . .	182	1
1845 . . .	158	2
1846 . . .	179	6
1847 to April 1 .	36	1
1847-48 . . .	268	6
1848-49 . . .	512	18
1849 to Dec. 1 . .	550	22
Total . .	8080	270

Ratio of mortality—from 1830 to 1849, 1 death in 29¾ admissions.

From Medical Board's Report, 1849-50. (Signed) J. Forsyth, Senior Surgeon, Sec. Medical Board.

Table No. V.

Return of Fever Cases Treated in the 1st and 2nd European Bengal Fusiliers from April 1, 1852, to January 1, 1861, taken from the Annual Returns in the Office of the Principal Inspector-General, Calcutta.

	Fever. Admissions.	Died.
1852 . . .	1264	1
1853 . . .	810	7
1854 . . .	362	1
1855 . . .	445	4
1857 . . .	1644	14
1858 . . .	1859	3
1859 . . .	337	—
1860 . . .	261	3
Total . . .	6982	33

1 death in 211·19 admissions.

Table No. VI.

Exhibiting the Annual Quantity of Quinine and Cinchona Bark issued from the Honourable Company's Dispensary at Calcutta during the Ten Years from 1849-50 to 1858-59 inclusive.

Years.	Quantity of Quinine. lbs.	oz.	dm.	Quantity of Cinchona Bark. lbs.	oz.	dm.
1849-50 .	520	7	—	2543	9	—
1850-51 .	513	9	—	2572	12	—
1851-52 .	628	11	—	4695	2	—
1852-53 .	811	3	—	3371	4	—
1853-54 .	637	15	—	2129	10	—
1854-55 .	773	—	—	3881	1	—
1855-56 .	985	8	14	3258	11	—
1856-57 .	1050	5	14	4922	4	—
1857-58 .	1656	9	4	5159	15	—
1858-59 .	1521	5	6	3567	9	—

From *Medical Annals*, No. 12, Page 380, of 1861. (Signed) Alexander Grant, Apothecary-General, Calcutta.

A testimonial in the shape of a very handsome claret jug and fish knife and fork was presented to Dr. Odling at the International Hotel, London-bridge, on the 30th ult., by the students of Guy's Hospital, as an expression of their high appreciation of his services as Professor of Practical Chemistry for many years, and to commemorate the good feeling which existed between him and them on their separation.

CASES OF SOFTENING OF THE BRAIN AND SPINAL CORD.

By JOHN W. OGLE, M.D., F.R.C.P.,
Assistant-Physician to, and Lecturer on Medical Pathology at, St. George's Hospital.

(Continued from page 590.)

Case 47.—James W., aged 34, admitted into the Hospital at Malta September 11, 1833, having had "fever" twice and ophthalmia once in past years. On the whole, had enjoyed good health, but was rather intemperate. Had been found one morning stretched on his back in a half comatose state, and so brought to the Hospital. His pulse was slow and small, tongue dry and furred, and abdomen distended; skin warm. He was bled and purged, and became sensible, but could not give any satisfactory account of himself. Subsequently he complained much of headache, of "heats and colds," of pain across the loins and in the calves, also of general fatigue, and of feverish symptoms. He was relieved by cold effusion and leeches to the head, cupping on the loins, and tartar emetic. On the 14th sudden and intense headache and heat of scalp came on, followed by rigors, and then by heat of general surface and perspiration. Blood from the temporal artery was taken. The symptoms assumed the form of those of remittent and intermittent fever, varying constantly,—chilliness and rigors alternating with febrile symptoms, pains in the limbs, headache, etc. Leeches were many times applied, with cold water to the head, and purgatives, with calomel and James' powder. On the 23rd muttering and wandering came on, and on the 24th twitching of the extremities. Subsequently a tendency to drowsiness manifested itself. Mercury was administered and carried to slight ptyalism. A blister was applied, which produced strangury and the passage of masses of coagulable lymph by the urethra. On the 28th there was violent delirium and frequent jactitation of body. These symptoms passed off, and returned two or three times. On October 8 the pulse was very feeble; there was much difficulty in swallowing, and he became apparently unconscious. He sank and died on the 9th. (Before death an abscess formed above the inner angle of the eye, and burst externally.)

Post-mortem Examination.—Abdomen: Viscera natural; bowels very congested; bladder natural as to its lining surface, etc. Cranium: The pia mater was found adhering closely to the anterior lobe of the left cerebral hemisphere, just above the left olfactory nerve. Of the portion of brain corresponding, about as much as would cover a shilling was found to be of a yellow colour and very softened. The corresponding part of the cranial bones was also diseased, and a communication existed by means of an ulcerated perforation through the bone with the interior of the nose and the loose areolar tissue about the eye. The lateral sinuses were full of a turbid fluid, and their lining membrane covered by a pultaceous (fibrinous) material in some places. Fornix and inferior part of the corpus callosum very softened. A slight amount of recently-formed fibrin existed behind the Pineal gland, which was very gritty.

P.S.—This case also given to me by Dr. Davy.

Case 48.—Thomas P., aged 29, admitted June 18, 1834, into the Hospital at Malta; an intemperate man, having very recently had cholera, and had much debility since. When admitted he had nausea, great prostration, and diarrhœa, with quick pulse and furred tongue. He had not been many hours in the ward when one of his comrades thinking him asleep, and coming to drive off the flies, found him dead.

Post-mortem Examination.—Abdomen and thorax: Organs quite natural. Cranium: No unusual vascularity of dura mater. Much fluid existed beneath the arachnoïd membrane. Substance of the brain exceedingly softened, and the lateral and third ventricles very much distended with fluid. Brain substance very "wet" also.

P.S.—Also one of Dr. Davy's cases.

Case 49.—Lieut.-Major William B., aged 42, much given to dram-drinking, admitted into the Hospital at Malta on July 2, 1834. About two years previously he had an attack which was said to be apoplexy, for which he was bled, and about two months previously he fell down insensible, and was largely bled, and afterwards became very delirious, with cold extremities, very rapid, weak pulse, and inability to sleep. As the case had some features of delirium tremens, he was treated with Dover's powder and stimulants, and soon recovered. When admitted (July 2) he had been seized with rigors and severe

pain in the head and limbs, and had been bled and purged. Subsequently his limbs became cold, and he shortly afterwards fell into a state of collapse, accompanied by delirium and "picking" of the bed-clothes. Wine was given and then brandy, but he sank and died on July 3.

Post-mortem Examination Twenty-four Hours after Death.—Cranium: Much sub-arachnoïd fluid existed, and the ventricles were distended with serum. The fornix and septum lucidum were very much softened, and the surface of the corpora striata, pons Variolii, and medulla oblongata rather softened; but, otherwise, the substance of brain was pretty natural. Other organs of the body not examined.

P.S.—Also one of Dr. Davy's cases.

Case 50.—Corporal George L., aged 38, was admitted into Fort Clarence June 30, 1836, with amentia, total blindness, and complete loss of power in the left arm and leg, and with partial loss in the other limbs. He had been thirteen years in India, and in the previous year had disease of the liver, and subsequently of the lungs, and afterwards been attacked by hemiplegia on the *left* side, following headache and numbness of the affected side. His memory had become impaired, his voice indistinct. When admitted there was rigidity of the extremities. Evacuations passed involuntarily; pulse feeble; emaciation considerable. In November he became more emaciated, and sloughs formed on the back. He died on the 22nd.

Post-mortem Examination.—Cranium: Cerebral membranes very vascular, and in many places the pia mater was adherent to the brain, and when detached brought with it portions of softened brain. Cineritious substance generally, and especially of anterior parts of both cerebral hemispheres, very softened. The anterior part of the right hemisphere was of a yellow colour, and very much softened. Both lateral and the third ventricles were dilated and much distended with clear fluid; posterior cornu of the left lateral ventricle unusually large—that on the right side so very small as hardly to be traced. Vessels and brain generally full. Basilar and carotid arteries and circle of Willis thickened and opaque. Moreover, the *basilar artery at its anterior part*, for a few lines, *was impervious, owing to its being plugged with fibrine;* and this was also the case with the principal branches of the internal carotids—viz., those going to form the circle of Willis, the *middle cerebral and anterior communicating*. The inner surfaces of all these vessels were thickened as if by fibrine deposit.

P.S.—Also one of Dr. Davy's cases.

Case 51.—Thomas K., aged 38, a well-behaved private, became affected whilst in India with Dracunculi, which "shook" his constitution, and for which he was recommended for discharge. A certain weakness of the right leg was noticed (which afterwards he attributed to a hurt of the knee). On his return to England he was admitted into Fort Pitt Barracks June 9, 1836, having a rather confused manner of speaking, no other symptom being noticeable. On the 29th he was stooping down to pick something up, and whilst recovering himself he fell down suddenly, and died in a quarter of an hour.

Post-mortem Examination.—Face livid; much blood had flowed from the nose. Abdomen distended. Cranium: Bones of skull natural. Anterior cerebral lobes softened, and partially disorganised, especially the superficial upper convex surface corresponding to the frontal bone. Tolerable amount of reddish fluid in ventricles. The septum lucidum broken down, and the fornix in a pultaceous state. The parietes of the lateral and fourth ventricles altogether very softened. The corpora striata and quadragemina also softer than usual. Thorax: Heart larger than usual. Lining membrane deeply stained. Abdomen: Organs natural. The knee-joint, which he said had been injured, on examination showed nothing wrong.

P.S.—Also one of Dr. Davy's cases.

(To be continued.)

Society for Relief of Widows and Orphans of Medical Men.—This Society has received a handsome present of £150 from Mr. Penn, at the hands of W. Owen Lucas, Esq., of Taunton-place, Regent's-park. We have much pleasure also in announcing to our readers residing within the London postal district that this Society has recently ordered the payment to fifty-two widows and twenty-one children of its deceased members their half-yearly grants, amounting to £1100—the largest sum it has ever reached; and yet a very large majority of eligible Practitioners are not members, thereby depriving their families of its advantages.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

A COWRIE (SHELL) IN THE RIGHT BRONCHUS—TRACHEOTOMY—RECOVERY.

(Under the care of Mr. JONATHAN HUTCHINSON.)

[Reported by Mr. Robert Hughes, late House-Surgeon.]

Francis T., a healthy little boy, aged 4, was brought to the Hospital on Sunday evening, July 10, 1864. He was an intelligent little fellow, and told us (as he had before confessed to his mother) that "he had picked up a smooth shell in the street, an hour before, and swallowed it," and that it "stuck in his throat." There was dyspnœa, but not much lividity. With each inspiration there was a peculiar valve-like "click" in the trachea. Mr. Hutchinson, Dr. Woodman, and myself made independent stethoscopic examinations, and from the nearly total absence of respiratory murmur and movements in the right chest, diagnosed the presence of a foreign body in the right bronchus. The boy was first held with his head downwards, and shaken, etc. This was repeated under chloroform. Next, during the anæsthesia, attempts were made to grasp the foreign body with a wire-noose. This was apparently done several times, but it always slipped back again. It must be remembered that there were no means of ascertaining the exact shape or nature of the object. The efforts made appeared to cause the foreign body to change its position to the *left* bronchus; meanwhile the dyspnœa became more urgent. Mr. Hutchinson, therefore, did tracheotomy at once, and the shell was easily seized during expiration, as it came to the wound. It proved to be an ordinary small "cowrie." The wound was closed by wire sutures, and covered with a compress of cotton-wool. Next day there was slight febrile action and bronchitis, which was followed by a little pneumonia of the bases of the lungs.

On the 19th the febrile action was subsiding; the edges of the wound were granulating nicely.

By the 25th the wound was quite healed, and the boy walked about the ward.

He was discharged a few days after.

TORBAY INFIRMARY.

CASE OF COMPOUND COMMINUTED FRACTURE OF THE FEMUR, INVOLVING THE KNEE-JOINT—RECOVERY WITHOUT AMPUTATION.

(Under the care of Mr. W. POLLARD.)

[Reported by W. Bathurst Woodman, late House-Surgeon.]

George B., aged 26, a stout-built fellow, who had charge of the metal waggons on the Dartmouth Railway, galloped his horses with the empty trucks into the tunnel near Brixham, which is a steep decline. By some means he fell, or was knocked down across the rails, and the trucks went over him, inflicting the severe injuries, to be described, on his right thigh. There was a good deal of hæmorrhage, and he was carried nearly insensible, or quite so, to a "Tallet" (a) close by, where he was seen by Mr. Pridham, of Paignton, who found the lower third of the femur extensively comminuted, for three or four inches above the condyles, a large wound communicating with the fracture on the outer side, quite five inches long, and rather more than two in breadth, laying bare the vastus extenus and biceps. On the inner side were two punctured wounds about one and a-half inch apart, both communicating with the fracture, and one or both with the knee-joint. To check the hæmorrhage, he carefully applied compresses of cotton, wool, and lint, and one long splint outside, with three or four short ones on the inner side of the limb—merely to prevent further mischief that night, not imagining that it would be possible to save the limb.

Next morning the man was brought to the Torbay Infirmary, a distance of five miles, but so well had the splints been adjusted that no further injury accrued. Arrived there, it was found that the whole thigh was enormously swollen, and the knee considerably enlarged; but as the first shock was over, as the hæmorrhage was checked, and the leg below the knee

(a) A hay-loft reached by a ladder through a trap door.

still kept warm, Mr. Pollard resolved to adopt the rule of deferring amputation for the present. As, too, it was found that any attempt to remove the compresses was attended with fresh bleeding, the limb was left for a few hours longer as first put up. Meanwhile a long interrupted splint, reaching from his axilla to beyond his foot, was made purposely for him, with a foot-board to steady it.

The next day (November 12, 1864) this was carefully applied, with an under iron splint, with foot-piece (like Liston's), on which the whole thigh and leg rested. The under splint was carefully defended with oil-silk, etc.; the wounds dressed with strips of lint soaked in dilute Condy's fluid; inside splints were placed above and below the knee, and the whole apparatus kept steady by a combination of buckles and sand-bags; the ward was well ventilated; Condy's fluid was used freely to the wounds, etc.; and iodine, in perforated boxes, was used both in the bed and in the ward. He was kept constantly under the influence of opium, and a fair amount of stimulus given him, gradually increased, but never exceeding 8 oz. of wine and Oiij. of porter per diem. He had a little bronchitis before the accident; and this, with a tendency to pass lithates largely in his urine, was the chief complication. Bark and ammonia, and the usual "linctus opiatus," were given him.

In four days' time, copious suppuration occurred, and continued till the end of December—often to the amount of a pint to a pint and a-half per diem. At the end of that time it lessened in amount; but synovia escaped freely from the upper wounds. These were then sealed up with compresses—a measure which was at length successful.

By the end of January, the lower wound also was about three-fourths cicatrised, and the rest healthily granulating.

On March 3, the wounds were all closed, and the bone firmly united. A very minute sinus, however, was left on the outer side, which could not be traced to the bone. The shortening was exactly 1½ inch, and the motion of the knee-joint very good, although that and the lower half of the femur were somewhat thickened.

On review of the case, I think conservative Surgery was amply justified by the man's walking out in less than five months with a limb almost as good as ever. In addition to the free use of iodine and "Condy's" as disinfectants, great pains were taken to disturb the parts as little as possible in the "dressing" of the wounds. If the bedding or splints were changed, care was taken to have plenty of assistance: sometimes as many as six or eight persons had each their allotted duty; so that the shaking and disturbance of parts were reduced to a minimum. The use of opium, too, appeared to be very beneficial in preventing pain and mental distress. It was continued for more than two months.

SHEFFIELD GENERAL INFIRMARY.

CASE OF COMPOUND FRACTURE OF THE SKULL WITHOUT CEREBRAL SYMPTOMS.

[Communicated by W. Dunnett Spanton.]

It is interesting to find a man with an injury of this kind in whom no special symptoms appeared, and it is satisfactory to know that a patient may recover completely in little more than a fortnight from an accident which is frequently so serious in its results.

The chief danger early in such a case would be acute arachnitis, and this the patient escaped. But we must keep carefully in mind that patients not unfrequently come to us for epilepsy or epileptiform convulsions giving just such a history as the following of past injury to the head. And as, of course, the patient comes under the care of the Surgeon for the injury and of the Physician for the epilepsy, the clinical history of cases of epilepsy from injury to the head is very incomplete. It is very important to watch the future progress of cases of even slight injury to the head after recovery. Besides the occurrence of epilepsy after an interval of apparent health, we sometimes have abscess of the brain.

John S., aged 27, a table-knife blade grinder, came to the out-patients' room of the Sheffield General Infirmary at noon on November 6, 1863. He stated that two days before, when slightly intoxicated, he received a blow on the head inflicted by a comrade with a stool. He was insensible for a few moments, but quickly recovered, and went to a druggist's with a wound on the forehead, which bled freely. The wound was dressed; but the bleeding continued more or less until the patient came to the Infirmary. On examination there was found a contused wound of two inches in length situated in the upper part of the right frontal region, with a fissure of the corresponding part of the skull around which the periosteum was torn off. There was no depression of bone. Two vessels bled freely, which were tied by Mr. Hall, who saw him at the time. The patient was a man of repulsive countenance and ill formed, but intelligent. He was pale from loss of blood; quite sensible; pupils both large and rather inactive; pulse moderately full and of natural frequency. He said he felt very well; and refused to be made an in-patient. Some sutures were put in the wound and dry lint over it. He had a dose of aperient medicine, and was ordered to come again the next day.

November 7.—Slept well; says he feels well; has no headache; wound looks quiet.

9th.—Going on well; wound suppurating freely; says he feels well; pupils normal; pulse 70, regular; has no headache. The wound was dressed with lint and strapping.

14th.—The patient has been to the Surgery every other day to have the wound dressed; it is now nearly healed by second intention; general health good.

21st.—Wound quite healed; patient discharged cured.

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Medical Times and Gazette.

SATURDAY, DECEMBER 24.

INDIAN MEDICAL SERVICE.

The new Indian Medical Warrant having definitively settled the long-agitated questions of the present status and future prospects of the Indian Medical officer, the time, it appears to us, has arrived when we may, without the chance of wearying our readers, pass in brief review the advantages and disadvantages of the Indian Medical service, concluding with a few remarks on the duties and expenses connected therewith. We do this the more readily as it is probable that, allured by the liberal character of the new Warrant, many young Medical men may be induced to offer themselves as candidates for appointments in the East.

First, as to the advantages of the service. These, with regard to pay, have been materially increased by the new Warrant. An Assistant-Surgeon now landing for the first time in India will, it is presumed (for the point is not specified in the new Warrant), be placed on what is termed "unemployed pay" of £340 a-year (£28 12s. per mensem) free of all deductions excepting for income-tax, there not being, as heretofore, heavy payments to be made in the shape of donations and subscriptions to the Medical Fund. When posted to a native corps, which, in the present paucity of Medical officers, he may reasonably expect to be within the first or second year, the pay rises to £540 per annum, payable on the first of each month. After the first five years the pay of an Assistant-Surgeon in charge of a native corps rises to £720 per annum. At this rate it continues till the end of ten years, when, with the rank of Surgeon, the pay rises to £960. At the end of twenty years (inclusive of all leave) the rank of Surgeon-Major is attained, with an income of £1200 a-year. These are the incomes of Medical officers in charge of infantry corps, but when in charge of cavalry corps there is an extra

allowance of £72 a-year for the keep of a charger. The Deputy Inspectors-General, who draw £2016 a-year, are selected for talent or merit (not by seniority, as heretofore,) from the Surgeons-Major; their tenure of office is fixed at five years, but at the expiration of that period they may, if it be deemed advisable, be re-appointed for a second similar period. The Inspector-General is drawn in like manner from the Deputy-Inspectors, and draws £3000 a-year. For the first three ranks—viz., Assistant-Surgeons, Surgeons, and Surgeons-Major—there are open several of what are termed "prizes" in the service,—Professorships at the Medical Colleges, Presidency Surgeoncies, the posts of Medical Storekeeper, etc., to which extra staff allowances are attached. But the advantages do not stop here. In cases of absence from duty from sickness, etc., a liberal scale of pay is granted, a portion of the time so spent is allowed to count towards pension, and the whole, in the case of the two lower grades, for promotion to the rank of Surgeon-Major, with its pay of £1200 a-year. Looked at, therefore, solely in a monetary point of view, the advantages of the Indian service are patent to all, far exceeding anything offered by any other public Medical service in the world, and surpassing what may reasonably be expected by the majority of Medical men starting in private practice at home. The certainty as to the amount of income, and the exemplary regularity with which it is paid, are of themselves no small advantages, appreciable fully only by those who have experienced the inconvenience of a Professional income drawn from private practice.

Such are the present monetary advantages; the prospective ones are pensions regulated by length of service. After 17 years (a certain portion being allowed for furlough, sick leave, etc.), £220 per annum; after 21 years, £292; after 24 years, £365; after 27 years, £456; and after 30 years, £550; whilst extra pensions are granted to those officers who for five years have held the posts of Inspector-General and Deputy-Inspector-General. There is likewise a rate of pension for those who are obliged to quit the service through ill-health, and also for widows and orphans, these latter being on the same scale as are granted in the British service.

A good social position is not one of the least of the advantages of the Indian service. And here the Indian possesses, perhaps, comparative superiority to the British service. In the latter, there has been too much truth in the allegation that the officers being drawn from aristocratic and wealthy families, "the upper ten thousand" are apt to look down upon and treat with singularly bad taste the poor Medico, who in society is regarded in the light of an interloper, be his qualifications, scientific or social, what they may. We know that this is not the case in all British regiments, but that it has been so in some will be denied by no one who is acquainted with Army matters. Now, the Indian is essentially a middle-class service, and its officers, though in no degree inferior in talent, intellect, and moral status to those of the British army, are always ready to hold out the right-hand of good fellowship to the Medical officer who ordinarily is drawn from his own middle class, and for the most part he and his wife and family mix on a footing of perfect equality with the other officers of the regiment to which they may be attached. It is necessary, of course, for the Medico to be and to act as a gentleman, and, so long as he so does and is guilty of nothing derogatory to his character, as such he is recognised and treated in every respect in a manner worthy of his Professional status.

The disadvantages, the *per contra* of the above bright picture, next remain to be looked at. The first of these, and one, perhaps, too lightly regarded by those who have never left their fatherland, is banishment for a lengthened period from home and all its dear associations and the humanising influences of civilisation. Those only who have tried it know the reality of *nostalgia*, which, sooner or later, comes to all, even to those who have the fewest claims on their affections in the old country. This is especially felt in the case of the married man, when "the olive branches round about his table" require transplanting to colder climes for culture, moral and physical; for this cannot be efficiently accomplished in India; tried under the most favourable circumstances, in the healthiest hill station, it has proved a failure. Certain it is that one of the greatest disadvantages of Indian life is the separation of parents and children for long weary years, the children, perhaps, forgetting entirely their parents, whose hearts are yearning for them far away. The expenses of this necessary arrangement are also great, and make serious inroads on past savings and present income.

Impairment of health by the debilitating influence of a tropical climate is another serious disadvantage. The unhealthiness of India, as a whole, has been over-rated; there are stations which can compare with England in point of salubrity, but, again, there are other localities which, from the presence of endemic or epidemic diseases, are peculiarly prejudicial to the European constitution. Now, a Medical officer has, of course, no selection as to his locality: he must go where he is ordered; and it unfortunately happens that it is at these very self-same unhealthy stations that Medical aid is always most in demand, and consequently they are those to which the chances are he will be sent. To have to reside at one of these stations is a disadvantage, especially if the officer happen to be a married man, as, under these circumstances, he must either expose his family to the same prejudicial influences, or he must maintain two separate establishments, which entails, of course, great extra expense, and reduces materially the amount of his income.

Another disadvantage inseparably connected with military Medical service is the occurrence of marches, but these are principally felt in the very first years of service. When posted to a regiment a march rarely occurs oftener than once in three or four years (the usual period for a regiment to remain at one station), but prior to that a young Medico may be marched all over the country with detachments, &c., which cannot but be regarded as a disadvantage, especially to a married man. The railways have in a great measure modified this state of things, but a few years ago it was one of the great drawbacks of the service.

Another disadvantage is the unfitness residence in India generates for private practice at home, if from any cause a Medical officer retires from the service. Many a young man on entering the service has flattered himself with the thought that after serving for his pension he will retire and practise in England. A more delusive day dream cannot be indulged in. A man, after even seventeen years' service in India, becomes unfit, as a rule, for taking general practice at home. He becomes too independent in his ideas, or too self-indulgent, or too broken down in health, or too backward in Professional knowledge to compete with the young energetic man fresh from his studies. It has been tried over and over again with the same result—failure. A few solitary exceptions, it is true, are to be met with, but as a general rule public service in India incapacitates a man for subsequent private practice at home. A man who enters the public service should at once make up his mind to stick to it till he has realised such an independence as will make private practice a matter of indifference.

The last disadvantage, which we shall merely mention, is the purely local character of the service, all the European military charges being, by the new Warrant, transferred to the British service. Let the Indian Medical officer, however, console himself with the thought that the relief of suffering and cure of disease is the great object of his noble Profession, and that in effecting these ends it signifies little whether the colour of the skin of his patient be black, brown, or white.

To sum up: *the advantages* of the Indian Medical Service are a liberal scale of pay, received with certainty and regularity, provision during sickness, pension in prospective for himself, and for family after him. In addition to this, there is secured a good assured social position in the best society which the country possesses. *The disadvantages* are, banishment for a long period of years from one's native country; separation

from children, where these have to be sent home for education; danger to health from the enervating influence of a tropical climate; the occurrence of occasional long and expensive marches; the unfitness which service in India generates for private practice at home; and, lastly, the purely local character of the service itself. For ourselves, we have no hesitation in expressing our opinion that the advantages far counterbalance the disadvantages; and with the new Warrant in force, we shall expect to see a great influx of Professional talent and energy turn in the direction of our Eastern empire.

STONE *v.* STONE AND APPLETON.

The attention of our readers cannot but have been called to the case of Stone *v.* Stone and Appleton, which was tried last week by a special jury, before Sir James Wilde, and has occupied the legal columns of the daily press. This is not the first time the case has been before the public. It was tried before the late distinguished judge of the Divorce Court in the spring of last year; and we ventured, in our impression of April 4, 1863, to make some remarks on the manner in which Sir C. Cresswell left the question of damages to the jury. Mr. Appleton was abroad at the time of that trial. He afterwards complained to the full Court that he had no sufficient notice of the suit against him, and obtained a rule for the new trial which has just taken place.

It is unnecessary for us to defend Mr. Appleton. The decision of the jury has really, although not legally, acquitted him. It is a matter of regret that he did not appear to participate in the verdict Mrs. Stone has obtained. We can only suppose that reasons unconnected with the circumstances of the trial prevented his return to this country. Only, in the interest of Professional morality, it is to be noticed that there appears to be no evidence to warrant any suspicion that he was guilty of the most shameful outrage of which Mrs. Stone, in her first tumult of hysterical delusion, seemed to accuse him. What a pity it is that there is no British Medical Association in existence which can take charge of the interests of its members in such a case. Mr. Appleton may have wanted funds or confidence. His Medical brethren should have found both for him. In defending him, they would have defended themselves.

We do not care to criticise the evidence, or to say more than that the acquittal of Mrs. Stone was demanded by all rules of evidence. Nor shall we further allude to the merely technical verdict against Mr. Appleton. But the case offers some considerations which are of the utmost importance to the Medical Profession and to the public.

In the first place, a case of this sort is sure to go hardly against a Professional man. He may deserve hard usage;—if guilty, he does deserve it. But the severity of the reprobation which his conduct, if bad, must incur, and of the penalty which—if Sir C. Cresswell's theory of penal damages is to prevail—he risks, exercises a strong influence on the mind of a jury in deciding whether his conduct has been bad or not. A prisoner accused of a crime which in the eye of the judge is murder, but in the eye of the jury is an almost justifiable homicide, has every chance that the evidence will fail to convince them of his guilt. If he is guilty, he is to be pitied,—they reflect;—and so they do not think him guilty. And in the converse case, where a crime, if proved, is unusually atrocious, a jury, indignant on one hypothesis, cannot entirely suspend their indignation on the event of the proof, but are unconsciously influenced by it through every stage of the trial. We recognise the same phenomenon in ordinary life. Scandal spreads, not by the probability of its stories, but by their wickedness, if true. Professional men are peculiarly open to injury from this cause. An offence committed by them in their business is more than a wrong—it is a breach of confidence. They are, maybe, ruined by a malicious piece of gossip; they are almost at the mercy of any one who will trump up an action against them; and if circumstances arise which put them on their defence against a *bonâ fide* accusation, the evidence which would raise no more than a suspicion of any one else, carries against them the most damning proof of guilt. We can hardly wish it otherwise. Our Profession requires and is admitted to the most sacred confidence; and while we cannot but pity some victims of prejudice, yet it is better for the whole Medical body, and for the interests which it tends and protects, that accusation (unless met in the boldest and most convincing manner) should injure them, and suspicion cast them out.

It is peculiar, again, to Medical men, and to their care of women, that the adviser is almost entirely at the mercy of the patient. The frequent interviews, which go for so much in ordinary trials of this sort, occur in the natural course of Medical attendance: nothing is wanting in order to turn them into proofs of crime but the malicious or mistaken testimony, the forced or frightened confession, of a respondent. The revelations of the Divorce Court have taught us how little reliance is to be placed upon such statements; how possible it is that a mind familiarised, by whatever means, with the idea of guilt, may distort the most frivolous circumstances into demonstrations of criminal intention—may even become insanely conscious of offences which have never been committed. But where the opportunities of crime are admitted, and the crime is confessed by the only possible accomplice or witness, it needs but a very slender thread of circumstance to confirm the story.

The practice of publishing reports of cases in the Divorce Court has been strongly disapproved. It is not easy to say that the evils of a secret administration of justice (for the unreported proceedings even of an open court almost come under that description) would not outweigh the manifest evils of publishing daily columns of immoral details. But of all cases, those certainly are the most mischievous to be read which tend to disturb confidential relations, and to put the ideas of crime strongly before weak minds. Crime is, to some extent, infectious, as we know; and it is still more true that crime breeds suspicion. In the case upon which we have founded these remarks, we have a lady, apparently not too happily married, resident for some years at an Indian military station,—in a country and in a kind of society which has furnished not a few occasions for divorce,—left alone with her children and servants for years more while her husband returned to India, accusing her Medical man of impropriety. We ask, what is the probable effect of such stories as this upon the minds of other married women, in their most nervous and excitable condition? Is it for good or for evil? For evil undoubtedly. But after the numerous cases of false accusation by women, we must say that members of our Profession will have themselves to thank if they cause any occasion for scandal by incautious or ambiguous conduct.

THE WEEK.

MEDICAL CHARGES.

The public have lately been enlightened by a well-known Physician of Derby on the propriety and moral fitness of remunerating their doctors by a yearly stipend, payable by the head of every family, which is to cover all ordinary Medical attendances—extraordinary ones to be paid by a proportionately extraordinary fee. Mr. B. Travers writes to the editor of the *Times* to deprecate on the part of the Profession any such proposal of "jobbing" physic. He defends the old system of the bill for medicine and attendance as "essentially an English custom," and prophecies that if it be departed from the only person who will be the gainer will be the nearest chemist and druggist. Could the entire number of English families above abject poverty be persuaded by the eloquence of the Derby syren to pay a regular tithe of all they possess to their Medical advisers and guides, we do not know why our Profession would be more injured in dignity by receiving its remuneration in that way than the clerical. But as any

such realisation of the scheme is utterly Utopian and visionary, we are very much inclined to agree with Mr. Travers. To tamper with financial machinery is dangerous, whether for a country or an individual, and it is certain that any change from the "bill" to the "fee" system can only be brought about gradually, and will never extend to the lower ranks of society. Poor people never have the money ready when illness or accident occurs, and if Mr. A. demands his half-a-crown or five shillings at the time, and Mr. B. books his visit and medicine, they will be sure to go to Mr. B.. No doubt Mr. B. will make more bad debts, and will work harder than his neighbour, but at the end of the year his banker's book will show much larger receipts. The different modes and scales of charging usual in various parts of the country, and even in different districts of town, are no doubt very much opposed to the French dead level of uniformity which it is the fashion now to imitate, but, like our different systems of weights and measures, they are very English, or, in other words, they work, on the whole, very well. There are, we suspect, some country districts, and even provincial towns, where the old fashion still lingers—where, nominally, the Doctor is still paid solely for the medicine he supplies, although his patients are quite aware that the nine shillings he charges for six draughts are really a recompense for his skill, and not a payment for the market value of the physic. We by no means advocate this mode of charging. It is an anomaly, not only in appearance, but in fact; but still it has been found no easy matter in all cases to substitute for it a system which suits the dignity of the Practitioner better, and his pocket as well.

A case has lately been tried at Leicester in which a Medical man, Mr. Crossley, sued a manufacturer of that town, Mr. Morley, for £21 3s. 6d. for four months' Surgical attendance and medicines. We cannot conceive how any respectable person could have disputed such a bill, the only fault of which, in our opinion, was the very low rate at which Mr. Crossley estimated his Professional services. Unfortunately, however, that gentleman, when a witness in the case of Jackson *v.* Gee—a cause which drew some notice in 1862—had in his evidence favoured the statement that it was not usual to charge for attendance as well as medicines in Medical cases. This opinion was, of course, now quoted against him, and his reply was that the present was a Surgical, and not a Medical case. We confess that we doubt the validity of such a distinction. Professional skill is worth as much in a case of pneumonia as in one of fracture. The chief objection on the part of the defendant in the present instance was to the charge of 2s. 6d. per visit in addition to the medicines, and to two fees of three guineas and a-half each for journeys from Leicester to Market Harborough. The frivolous nature of the defence was pretty well exposed by the judge, and the plaintiff obtained his full charges with costs. We congratulate the Profession at Leicester on the verdict, but we hope that half-a-crown is not the usual fee in that town for a visit to a manufacturing magnate.

FROM ABROAD.—LESION OF THE LEFT HEMISPHERE IN DERANGEMENT OF SPEECH—PRIZES AND PRIZE QUESTIONS AT THE ACADEMY OF MEDICINE.

M. Dax presented to the Academy of Medicine a paper entitled "Cases Tending to Prove the Constant Coincidence of Derangements of Speech with a Lesion of the Left Side of the Brain." "According to the author," says M. Lelut, the reporter on the paper, "nearly 140 cases, almost the whole of them foreign to his personal experience, prove that in derangement of speech it is almost always the left hemisphere which has undergone change, lesions of the right hemisphere never being accompanied with this derangement. If such a fact were true, this mysterious organ—the brain—would be still more mysterious. Each of its two hemispheres—each part, even, of each hemisphere might then be the seat of different functions. It is, however, with the two hemispheres as with all double organs—the eyes, for example, which fulfil the same functions—the left is neither more nor less the subject of lesion than the right in derangements of speech. If it were necessary to cite facts in this matter, there is one published by myself so long since as thirty years—viz., a case of epilepsy in which the reduction of the entire left cerebral hemisphere into a *bouilli* had not even been suspected, and left speech intact until the last moment. Then, on the other hand, in another case, a carcinomatous alteration of the cerebellum existed with derangement of speech, the left hemisphere remaining entirely sound. Lastly, there is the remarkable general fact that the marked alteration of speech which takes place in the insane subjects of dementia and general paralysis is accompanied by no other lesions of the brain than inflammatory adhesions over the entire surface of the organ. "I regret," says M. Lebut, "that the Academy has done me the honour of confiding the making a report to me, and perhaps I ought to have declined it. There are in these portions of physiologico-psychological science with which I have been most engaged a crowd of things which I do not know, or concerning which I doubt—a great number of points concerning which I am ready to change or modify my opinion. There are some—and these are the smallest number, after thirty or forty years' study—concerning which, right or wrong, my opinion can undergo no change or modification. Such is, in fact, the relation sought to be established between such a fact or such a faculty of the mind and a given part of the central nervous system, and especially the attribution which it is sought to be made of this or that part of this system to the fact or faculty of speech and language. This is neither more nor less than phrenology, and I think I have sufficiently occupied myself with this pseudo science to be exempted from a re-examination of it."

The Paris Academy of Medicine has just held its anniversary, at which M. Béolard delivered an *èloge* upon a long-since deceased celebrity, Delpech, of Montpellier. This practice of calling to mind the scientific pretensions, the literary productions, and the personal characteristics of the various men who have raised themselves into the position of epochs of science, adopted by the Academy is excellent and instructive, entrusted, as it usually has been, to highly competent hands. It is far preferable to the constant iteration of the merits, claims, and doctrines of one man pursued by our own Colleges, even with respect to individuals so eminent as Harvey and Hunter. In proof of this we may challenge a comparison of the various published Hunterian and Harveian Orations with the collections of *èloges* from the pens of Louis, Pariset Cuvier, Flourens, and Dubois. On this occasion the awards of those of the prizes in the gift of the Academy which fall due this year were also declared as follows:—1. For the Academy Prize (M. Briquet, reporter), for the best essay on the "Affections of the Nervous Centres complicating Acute Rheumatism," four essays were sent in. One of these by M. Desquin, of the Belgian army, founded upon 94 cases, is represented as a valuable production, and is rewarded by 600 out of the 1000 francs constituting the prize, while the 400 francs are assigned for another memoir the joint production of MM. Ollivier and Ranvier. 2. The subject for the Portal Prize "The Condition of the Nerves in Local Paralysis," tempted no competitor. 3. That obscure affection, so much written upon in France of late, and yet so in need of further illustration, *ataxie locomotrice progressive*, constituted the subject for the Civrieux Prize (M. Barth, reporter). A memoir by a rising French Physician, M. Paul Topinard, receives a recompense of 600 francs, and is represented to be an able and valuable production, founded upon 209 cases, 41 of which have never been published. To M. Bach, an assistant Professor at Strasburg, 400 francs are also awarded for an admirable essay. M. Carre, of Avignon, also receives an "honourable mention." 4. The Barbier Prize for the reward of the discovery of the cure of a reputed incurable

disease, remains for the seventh time unawarded. 5. The Capuron Prize (M. Blot, reporter), "Incoercible Vomiting in Pregnancy," called forth eleven competitors, M. Poreau, of Ancenis, proving the successful one. 6. The Itard Triennial Prize (M. Gibert, reporter), for the best book on Practical Medicine and Applied Therapeutics appearing during that period, led to thirteen works being sent in for the Academic approval. Of these four were selected, the sum of 2000 francs being awarded to M. Davaine for his book on the entozoa, which is characterized as the most complete and most learned work upon the subject. To M. Bonnafont 1000 francs are awarded for his work on "Diseases of the Ear;" while "honourable mentions" are decreed to M. R. Latour for his treatise on "Inflammations," and to M. Bonjean for his work on "Ergot of Rye." 7. The Orfila Prize (M. Gobley, reporter) of 6000 francs, subject, "Poisonous Fungi," has been offered this year for the third time, and has at last called forth four memoirs, all pronounced as excellent. The best of these is by M. Boudier, a *Pharmacien*, of Montmorency. The Academy regretted that it had only in its power to grant "honourable mentions" to two other competitors, MM. Reveil and Cordier, of Paris. 8. The Godard Prize (M. Jolly, reporter) for the best work on "Internal Pathology," is adjudged to M. Legres, of Aubusson.

The following are the prize-subjects announced for 1865 and 1866:—1. The Academy Prize of 1000 francs, for 1865 "Traumatic Paralyses;" for 1866, "Epidemic Erysipelas." 2. The Portal Prize of 1000 francs, for 1865, "Do there exist any Specific Anatomical Characteristics of Cancer?" for 1866, "The Pathological Anatomy of the Nerves in the Principal Visceral Affections." 3. The Civrieux Prize of 1000 francs, for 1865, "The Relations of General Paralysis and Insanity; especial care to be taken to decide whether general paralysis is a primitive affection appearing in subjects of hitherto sound mind, or if it frequently supervene in the course of simple insanity." The Civrieux Prize of 800 francs, for 1866, "Migraine; its causes, essential phenomena, relations to other affections, and final consequences. Its seat and nature to be determined by original investigations, or by autopsies already published, and its rational treatment to be especially insisted on." 4. The Capuron Prize of 1000 francs, for 1865, "The Pulse in the Puerperal State;" for 1866 "Shivering in the Puerperal State." 5. The Barbier Prize of 4000 francs for 1865 and 1866 will be decreed to the discoverer of the means of completely curing a disease usually reputed as incurable, such as hydrophobia, cancer, epilepsy, scrofula, typhus, cholera, etc. The Academy having found this prize lying on its hands unadjudged year after year, has obtained authority to present recompenses to those who, without having obtained the end specified, have made the nearest approach to this. It has also enlarged the programme by admitting Surgical procedures calculated to arrest the progress of an incurable disease as valid ground for competition. Since doing so, several eminent native and foreign Surgeons have brought ingenious procedures under the notice of the Academy; but this body has come to no decision respecting these, not so much from a want of appreciation of their value as from an absence of sufficient information respecting the originality of the respective inventions. It hopes, however, in the ensuing year to be in a position to adjudicate. 6. The Amussat Prize of 2000 francs for 1865 to be given to the author of the work which by researches simultaneously based on anatomy and experiment has realised or prepared the way for important progress in Surgical Therapeutics. 7. The Godard Prize of 1000 francs for 1865 for the best memoir on "External Pathology" and for 1866 for the best memoir on "Internal Pathology." 8. The Orfila Prize of 2000 francs, for 1866, "Digitaline and Digitalis." 9. The Lefevre Prize of 1500 francs, for 1866, "Melancholia." The essays or books are to be delivered at the Academy by March 1 of the respective years.

REPORT ON CHEAP WINE.—NO. VII.

(*By our Special Empirical Commissioner.*)

(Continued from page 628.)

Further Illustrations of the Uses of Bordeaux Wine—Use in the Exanthemata, in Rheumatism, for the Bilious and Gouty—Three Kinds of Thirst—Red Burgundy Wines, their Special Property—Examples of Cheap Burgundy now sold in London—A Medical Digression on the Nature and Effects of Stinks and Odours.

I was obliged to finish my last paper on the Bordeaux wines without mentioning one of their chief uses, which is to relieve the restlessness, nightly wandering, and thirst of the exanthemata, and especially of scarlatina and measles, in children. If a child is very stout and red-lipped, I should not press the use of wine during the first day or so; neither, in fact, need one *press* it at all. Mix one pint of pure Bordeaux wine with one or two of pure cold water, according to the patient's age, and let him drink it at night, *ad libitum*. I know of no "diaphoretic," "saline," or "sedative" so admirably adapted to allay the miserable wandering, the headache, and thirst of scarlatina. What an improvement it would be if we were wise enough sometimes to trust to our patient's instinct! It is contrary to all experience that a sick child or other unspoiled person should go on sipping what made its head ache more, or its pulse beat higher, or which added fuel to a tormenting heat and thirst. In measles, so soon as the rash becomes dusky, Bordeaux wine allays the great restlessness. This, be it observed, is not a treatment founded on any hypothesis that alcohol is a good aliment for the nervous system, but on observation of facts at the bedside. It is no more than the small beer which Sydenham used to allow his patients in small-pox and pleurisy.

Any one who observes what takes place within himself may soon distinguish three kinds of thirst. The first is that which arises from want of drink and excessive perspiration in summer, and is almost certainly allayed by water. The next is a false thirst, depending on a disagreeable state of mucous membrane of tongue and fauces. This is common enough with dyspeptic people, and many children who are "always thirsty," and is not only not relieved but aggravated by copious draughts of cold water. The third is a thirst truly subjective, depending on the nervous system—the thirst of mental agitation, of bodily pain, or of intense fatigue and exhaustion. Any one who has ever experienced this last may know that whilst mere water is only valuable as a kind of diversion, a drop of wine acts magically. When one sees a man, "unaccustomed to public speaking," humming and hawing, and in vain trying to lubricate his tongue with the glass of cold water provided for public lecturers, it is clear that a more advanced knowledge of physiology would have caused that glass to be filled with wine, to oil the brain, which was the really dry place, whereas the jaws might have been left to themselves. A lady complained to me that her daily governess, when she came to her house, always asked for a glass of cold water. It is very common with sickly, bloodless milliners' girls. Fruit, or food with wine, are the true remedies for the foul tongue and nervous exhaustion which the poor creatures delude themselves by calling thirst.

All three kinds of thirst probably exist in the exanthemata, and after the first or second night, if the patient voluntarily sips, and does not respue, Bordeaux wine and water, it may be given *ad libitum*. Adult patients have gratefully described to me the extreme refreshment and quietness which such a drink produces throughout scarlatina simplex and anginosa. Of course if the patient dislikes it there is no more to be said.

I put together three classes of patients—rheumatic, gouty, and bilious—because they are the chief sufferers from heavy, ill-fermented, alcoholised, and ill-blended beers and wines. I have no theories; but state the fact that persons whom I have attended for years enjoy good health whilst they drink pure Bordeaux wine, and suffer in head or joints the moment that they touch port or sherry, unless of the dearest and oldest qualities. Practitioners of the last generation used to be haunted by the demon Acidity, and to think they could cast it out by a diet of meat and brandy. I say try claret, and you will add ten years to your patient's life and to your own fees.

So much for Bordeaux wine, on which I love to linger. It is such a model of purity and freshness; so little prone to disagree with any one; so well adapted as a beverage for all ages and all conditions. To me it resembles young, fresh, laughing, innocent girlhood. But there is a something beyond even this. We may admire the rosebud and the snowdrop, but

there is a place in our affections for something fuller, warmer, rounder, and more voluptuous. As is Aphrodite to a wood-nymph, or the Olympic Jove to Apollo, or Jeremy Taylor to Bunyan, so are thy wines, O Burgundy, to those of thy sister Bordeaux!

As I have already ventured to say, I fear that my Professional brethren neglect the practical study of diet. It is true that there is an abundance of statistics, which show how many grains of nitrogen the "average man" ought to consume. It would be useful to calculate how many grains of wool would clothe the average man. But when we find a man who loves to look like a gentleman sending to an Israelitish retailer of ready-made clothes for a set of habiliments suited to the average man, then we shall find these vague generalities on diet (useful as they are in the schools) serve our purpose at the bedside. Really some Physicians, instead of taking care of the whole health and comfort, moral and physical, of their patients, seem to think of them only as beings created to be sick, and born to swallow drugs. What sort of homes should we have if Paterfamilias kept a vile cook, bought wine at auctions, and let the decorations and furniture spoil, but meanwhile kept a capital fire-engine in the hall and a brigade of detectives in the butler's pantry? So is the Physician who studies drugs and knows nought of diet.

In neglecting Burgundy wine, we ignore a most powerful agent in diseases of the nervous system. If any of my readers will do me the honour to be advised to study this wine, let me entreat him not to begin with a cheap sort, but to select a good specimen in which he will find the peculiar excellences well marked. As in studying anatomy the student should get well-developed bones to begin with—then he will detect the various surfaces and processes in less marked specimens—so I advise the student to invest four or five shillings in a bottle of good Volnay, or to go to a respectable wine merchant and describe what he wants. Take care that the wine be not chilled nor the wine-glass cold (58° Fahr. suits myself), and drink of it in the middle of dinner with roast meat or, still better, with hare or other game. One bottle is quite enough for four persons. Then say what you think of it. Is it sweet, or sour, or hot, or strong? No, it is perfume. It is not a liquid *plus* perfume, like much of the factitious rubbish called Moselle, but it is itself a liquid perfume, one and indivisible. The perfume or bouquet is the first thing tasted and the last. It hangs on the tongue and palate, and leaves a permanently agreeable impression. There is no room, as in some wines we have treated of, for distinguishing various properties after deglutition, even if of perfect unity and pureness. The first and last and only property is the bouquet.

And what is this like? I must refer to Bence Jones and Mulder for a history of its origin and nature; this is no business of mine. It is a something with a trace of bitterness in it. This is not saying much; but if the taste be any guide to its nature or alliances, it ranks with the class of substances of which valerian, civet, and castor are examples.

Burgundy is pre-eminently a full-bodied wine; but its body is aromatic, not alcoholic. Of course, like all great artists, I am drawing from the live model. I write with a bottle before me, which I am sacrificing for my own inspiration and my readers' profit; and the alcoholic strength of the generous liquid is only 22 or thereabouts, whereas a bottle of Cape Port sent me by a patient (of course, being undrinkable, it shall be given to the poor) is quite 36. One-eighth of a bottle is as much as a man need drink with the most savoury parts of his dinner; one-fourth of a bottle is quite a good dose for a moderate man. It makes one feel decidedly warmer and more genial; it is a thorough exhilarant, and if taken too freely produces a tightness and uneasiness in the head. But if good, it does not produce any other ill effect; neither does it do so if other wines be taken before and after it, as people ought to do, for to drink Burgundy throughout a dinner is like trumpets throughout a sonata or an apple tart all quince. But if too new, or in a state of fermentescibility or acidity, it will be felt in every joint in the body. *Corruptio optumi, pessima.*

A long time ago I learned by experience the value of Burgundy in cases of debility with nervous exhaustion. The patient who first taught me was subject to fits of giddiness, or syncope, or sudden pallor, followed by hysterical symptoms. He had been subjected to all the artillery of "nervous" and antispasmodic remedies—valerianate and sulphate of zinc, galbanum, etc. His own instincts led him to drink a very good Burgundy, as being more supporting and less heating and acescent than port and sherry, and more full-bodied and satisfying than Bordeaux. I am satisfied that, although out of a million drinkers fewer would find anything possibly disagreeing in Bordeaux than in Burgundy, yet for a large class of people who want support, Burgundy has in it materials which Bordeaux has not. It is more powerful for good, and of course for evil likewise.

To use a rough comparison, Burgundy has fifty times the flavour which port has, or ought to have, with half the alcoholic strength. But this is saying not enough in praise of it: it really soars high above port in the qualities which distinguish wine in contradistinction to spirits. Whoever would add an innocent pleasure to his Christmas festivities, let him hand round a bottle of Volnay or Chambertin with the roast turkey. Even the most solemn old port-soakers will be shaken in their allegiance to the Lusitanian decoction, and will be tempted into the habit of looking for the best wine with the best dishes, instead of gulping "dinner sherry" with their meat, and looking out for a heavy sitting over the port when dinner ought to be over.

But old-fashioned wine merchants will tell you that Burgundy does not answer. "It won't keep," they say, "it won't bear travelling, and it gives the gout." A year or two ago, Mr. S——, a well-known, eminent wine merchant, was at Macon at a time when the leading wine-growers of the country had assembled to taste and classify the new wines. He took the opportunity of bringing before them the popular English threefold objection, which I have just stated. In answer to the first objection they brought him Burgundy wine a hundred years old, attenuated, but still sound wine. In reply to the second, they brought him some that had been all round the world; and in reply to the accusation that it caused gout, they bid him inquire at dinner-time, amongst more than 200 wine-growers then assembled—men who loved, and drank, and swore by their own wine—how many had gout. He was quite satisfied on this score.

But it is time to quit these lofty regions, and come back to the cheap wine, which is my subject. I believe it to be true that, within certain limits, the value of wine increases, not as the price, but as the square thereof—*i.e.*, a bottle that I can get for 4s. 6d., 4s, or even 3s., is five, four, or three times as good as what I can get for 2s. or 2s. 6d. It is only in first-class, expensive wines that you get the totality of flavour which I have been describing; in cheaper ordinary wines you get more or less of it. We ought certainly to get a something fuller, stouter, rounder, and higher-flavoured (on the average, too, three or four degrees stronger in alcohol) than in the pure, delicate, virgineal Bordeaux of equal price. In lower qualities we get a something acid, perhaps very acid, and the flavour is so little, or none, that no one could say what the wine might be.

Specimens of Cheap Burgundy Bought in London, 1863 and 1864.

At Fifteen Shillings per Dozen.

1. "Vin Ordinaire de Bourgogne." From a French retail shop in London. Tastes mixed—strong, rough, acid, sickly sweetish; no flavour; the worst wine of the sort I ever got.

Sixteen Shillings.

2. "Beaune." Messrs. ———. Seems new; full coloured; not acid nor astringent; sweetish; wants character; but is not worthless.

Eighteen Shillings.

3. "Mercurey." Messrs. Brun, 63, Dean-street, and Libourne, Bordeaux. Charming wine of its kind; old; clean; very light; not acid nor sweet; thin body; some flavour. Alcoholic strength = 18.

4. "Beaujolais." Hall, 63, South Audley-street. Well flavoured; not very stout; sound and palatable.

Twenty Shillings.

5. "Macon." Fearon and Co. Good, clean, pleasant, satisfactory wine.

Twenty-one Shillings.

6. "Beaujolais." Justerini and Co., Pall-mall. Full bodied; not too acid; good flavour; satisfactory.

7. A sample from Fearon's, Holborn. Very nice, well-flavoured wine. Alcoholic strength = 17·6 per cent. of proof spirit, or thereabouts, as shown by Crockford's spirit indicator for wines.

Twenty-two Shillings.

8. "Beaune." R. Wood, 132, New Bond-street. A very satisfactory wine indeed; clean uniform taste, stout body, good flavour. Alcoholic strength = 18.

9. "Macon." Imported from France by private consumer;

cost 22s. when bottled. Alcoholic strength = 19. Very nicely flavoured; in good condition; sound, appetizing wine.

Twenty-four Shillings.

10. "Lamalgue." R. Wood and Co., New Bond-street. A clean, sub-astringent, satisfactory wine.

11. "Beaujolais." *Ibid.* A very nice, clean wine; some body and flavour.

These are all the samples of cheap Burgundy that I have purchased and drank. I have, however, tasted at the houses of friends several specimens of the Beaujolais sold by the Beaujolais Wine Company, in Pall Mall, which is a capital, stout, sound, well-flavoured, serviceable wine. Its alcoholic strength is about 20·5. As I said before, these are wines for daily use, and, although good, yet are, as it were, very feeble adumbrations of really first-rate Burgundy. I have already said that they are, for the most part, fuller or stouter than Bordeaux wines of equal price.

I ought, when speaking of Bordeaux, to have mentioned some cheap specimens of white wine; for instance, a *Vin de Grave* at 24s. and another at 30s., sold by Barlow, 5, Curzon-street, of which my note is, that they are clean, sound, agreeable wines, not too acid, capital vinous flavour. Here, too, I must not pass over white Burgundy. I spoke in my first paper of a cheap Chablis, at 18s., which I had in 1863 from Brun's, 63, Dean-street, Soho; a thin, light, clean wine, appetising, and of pleasant flavour; some that I had afterwards at the same place was slightly turbid, as if changing. I have got capital Chablis at 24s. at Rutherford's, in Wigmore-street, and at 30s. at Barlow's, in Curzon-street. Each of these specimens, except the one mentioned, was in good condition, and agreed thoroughly well; and it might have been put on any table without disgrace. What a deliverance from the tyranny of "dinner sherry," could we have such wine handed round with our fish!

I heard some Pouilly, at 24s., sold by the Beaujolais Company, so highly recommended by a learned and accomplished Physician, that I have sent for, drank, and approved it highly. It has quite a perceptible dose of the Burgundiacal flavour, and is fuller, rounder, and more satisfying than Chablis, whose character is "flintiness," but which certainly would tempt a man to eat a carrion crow.

I must also mention Yvorne, a Swiss wine, at 24s., from Wood's, in Bond-street, as one which ranks with these other clean, fragrant, appetizing white wines.

Here, then, with Burgundy as with claret, there is abundance of good, cheap wine, suited to every pocket, which ought to be introduced at dinner and evening parties, instead of vile Hambro' sherry, and to be ordered for the invalid whose appetite needs a whet.

Now, let us turn back for a moment to the subject of the odours of which Burgundy wine bouquet is one, and see what inferences we can draw respecting their nature and effects.

As positive empirical facts we have the following:—From the remotest antiquity mankind has highly valued a set of remarkably odoriferous substances — musk, civet, valerian, assafœtida, galbanum, sandal, garlic, and the like. All animals have an instinct which teaches them to search for and delight in similar substances.

That the law for these things is of remotest antiquity is shown by the fact that the hunting of the beaver for the sake of his odour bags was a thing so notorious that it formed the groundwork of one of those most ancient moral stories which are known as Æsop's Fables. This carries us back to times when the Κάστωρ was common in the rivers of ancient Europe and the countries around the Black Sea. The beaver, as the story goes, δῦ τὰ ἀιδοιά φασιν 'ιατροῖς χρήσιμα εἶναι, being hunted, bites off the precious deposit, and leaves it to his pursuers, glad to compound for his life. When medicine arose, substances of this class were called antispasmodics, and have continued in use to this day, as is well known. They were sought out first, as I believe, through that inborn instinct which incites the whole animal world to delight in such odours: they were adopted as remedies long before such a thing as a nervous system was dreamed of, and they were continued in use because experience confirmed what instinct had pointed out.

But what is their nature and the secret of their charm? We will see if we can grope our way to a little light, guided by a few palpable facts.

Every animal has its peculiar odour—we should rather say every *thing*—for even metals and substances the least volatile are perceptible to some acute noses. But every animal, at least, has its odour, which exhales from the skin during life, and may be detected in the blood and flesh after death. I do not mean merely the odour of the excretions, though these are all peculiar and *sui generis*, but the odour of the skin, flesh, and blood, alive or dead.

It is a fact, quite inscrutable, though not to be disputed, that some animals possess much more odour than others. There are tribes of odoriferous or musky mammals, as is well known; the alligator is notorious for a musky smell; and amongst fish, the smelt incontestably enjoys a delicious predominance. Perhaps it is correct to say that the human nose is acutely sensible of the odours of some animals, and little so to that of others, rather than that some have more odour than others. Man himself, whatever his privileges, is not distinguished from the rest of the animal kingdom by the absence of odour; and here, of course, I speak not of the taint of dirty and unwashed skins, but of the subtle musky emanations from the persons of the most refined and fastidious. The dark races have notoriously the start of us here. I well recollect some Kaffirs, splendid dusky fellows, naked to the waist, who were in London some years ago, and visited the Zoological Gardens, where they left quite a musky trail in the air as they passed.

But when I say that all animals have odour, I must limit my words, and say all *perfect* animals. The young have it not; no, not even in the excretions of their alimentary canal or kidneys. This hath been well pointed out by the learned Chrysophagus in his well-known folio treatise, the *Coprologia, sive de Stercore, &c., &c.*, and especially in the chapter devoted to Final Causes; but I need not dwell on it here. Suffice it to remark, in passing, that it is an admirable instance of the arrangement of the animal creation, even in small details, that young nestlings are inodorous.

On the contrary, odour is prominent in the mature and sexually perfect animl, in its highest vigour and development, and the well-known devices resorted to to unsex animals intended for the table, in order to hinder their flesh from being *strong*, furnish a crucial test of the conditions under which animal odour is developed most perfectly.

But if such odours be an inherent constituent of a perfect animal, it follows of necessity that they cannot be repulsive to others of the same species; quite the contrary, and this throughout the whole animal range without exception. Moreover, as they exist most copiously in the most vigorous animals, it is difficult to avoid the conviction that their presence in the blood conduces to vigour, especially in those qualities of boldness, ferocity, activity, and muscular force which distinguish the perfect animal.

That such odours, or some of them, are agreeable to many persons, and useful in some complaints, is undeniable. Possibly their secret charm to some persons arises from a certain mysterious suggestiveness; they bring, as it were, upon the organ of smell some faint shadow of that which it has been (perhaps quite unconsciously) accustomed to meet with in the person of some loved friend. "The smell," said the blind Patriarch, "is the smell of Jacob." But a still stronger reason remains. If these odours be the product, or accompaniment, or instrument of a vigorous nervous system, we might expect *à priori*, as we find in fact, that they are sought for and loved by, and that they are beneficial to, persons whose nervous systems are feeble and shattered, and inadequate to their work. As we prescribe the juice of the muscular flesh of animals—*i.e.*, soup or essence of beef, to persons who are deficient in muscular force, so persons who are deficient in nervous force, as the hysterical, have sought out and prescribed for themselves, led by an unerring instinct, the odours which are part of the apparatus of the nervous system of other animals in their highest state of perfection. This, then, is the reasonable inference we draw from the instinct which leads certain patients to such "fœtid" medicines, and from the good results which we know to follow from their use—viz., that these medicines supply a something which the nervous system ought to produce, but which a feeble nervous system cannot produce, or which one that is overtaxed cannot produce sufficiently to meet the demands on it.

I will not go here into the Medical uses of musk, valerian, castor, and the like. That they have great force in the cases adapted for them, is certain; but we have very much to learn. My present purpose is to show my younger brethren the place which good Burgundy may occupy in their *materia alimentaria*. What Bordeaux is to the blood, that is Burgundy to the nerves; and I trust that my brethren will be induced to give it a trial.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF READING.

We have a pretty fair history of the old town of Reading, much of a muchness in all the books, from the year of the present era 871. Of the character and influence of the town previously to that time there is considerable obscurity; at the period named, year 871, the place must have been of importance, as it was fortified, and is mentioned by the historian Asser as an armed town under Danish rule, the Danes having wrested it from the Saxons after a fierce encounter. The antiquarians have of course held a learned disputation about the name, and at last seem to have settled on one of two theories. Says one, the name originally was "Redin," Anglo-Saxon word for fern; because where Redin stands ferns once abounded: town of fern. Says the other, the word is a compound. "Rhyd" means a ford, and "Ing" means a meadow, and as the town is situated in a meadow crossed by the river Kennet, which then must have been forded, therefore must the town first have been Rhyding, and by perversion in a later day, Reading:—a town situated on a meadow near a ford. The last derivation finds now most favour.

In 1006 the town was subjected to fire by Sweyn, of Denmark, a pestiferous kind of demigod, who appeared to glory in firing the towns of England, and who would have fired the island itself if he could have got his torches under it. However, some wreck of the place survived, and the Normans found it in the possession of King Harold as a domain belonging to the Crown. Of course the Conqueror did not hesitate to make the domain transferable to himself, and hence we find it noted at and after the period of the conquest as a sort of appanage to the Royal property. It does not appear that William himself cared much for the place, neither did his successor. But Henry I., Beauclerc, whom we have had so recently before us as one of the founders of the University of Cambridge, was so pleased with it that he raised there in 1121-25, not a Norman castle, but a Norman monastery, which he endowed with means for carrying out the most splendid of receptions and ceremonials. The Abbots were mitred, and were actually invested with the powers of conferring knighthood and of coining money. Henry was buried in the abbey in 1135. A tomb believed to be his remains. In the next reign, that of Stephen, a castle was added to the town; and in the following reign, the said castle not being congenial to the taste or policy of the king (Henry II.), was levelled to the ground, and was not restored again in all its power, although in the time of Richard II. it must have been rebuilt, and the town around must have risen to considerable size and importance.

As a centre, near to the metropolis and near to Oxford, Reading became distinguished from early times as an arena for political and learned debate. Here Henry the Second met the Patriarch of Jerusalem, Herodias, or Heraclius, in 1185, and received from his hands the keys of the Holy Sepulchre and the banner of the Holy City. Here the students of Oxford, in the year 1202, after a brisk "town and gown riot," hastened in their rage, professors accompanying them, and commenced to "read," until the Oxfordians, finding that the town politics did not suit the town, cried *peccavi*. But for that *peccavi*, Reading had perchance been now an University city. Here, in 1212, the council from the Pope tried to make an equitable arrangement between King John and his bishops, but only did half the work, and that badly. In the reign of Edward the First the town of Reading had increased largely in population, and had become known in the then commercial world in one department for certain doings in commerce of an important nature. But the most significant matter of history is this, that in the said reign we are indebted to Reading for one of our most important inventions, an instrument that has travelled over more surface than the Flying Dutchman himself. Was it a steam engine? No. An aërial machine? No; preposterous. I doubt even if they know the fact at Swan and Edgar's, or Marshall and Snellgrove's, and I am sure they know it not at Moses and Son's, or their poet would ere now have filled an omnibus, to the exclusion of the passengers, with epics on the subject. What could it be? Why, it was "*the yard measure.*"

The invention came about, too, in such a funny way that one cannot but laugh at it, so primitive is it, and so quaint. As I have before said, the town was getting into repute in the way of trade, and now it may be added that such trade as there was took a turn for wool, so that woven woollen fabrics soon became the staple. The result was that wealthy clothiers rose in Reading, and men of influence with kings themselves, who, of all persons, require superfine clothes to set them off against lesser men of higher caste of thought. Amongst these clothiers was one Thomas Cole, an unusually wealthy man, who actually "breeched" the King's own person. What could any man do more for power? Thomas Cole then had a point to carry; he wished to secure a standard measure for his long-cloth; he proposed the measure, and got a hearing. But what was to be the standard? Keen man, Cole! he knew. What but his Majesty's own right arm? The arm of majesty was accordingly measured, and found to be a yard in length, and from that day to this has that puissant royal member of Edward the First been, through its representatives, in such activity that if it has not solved the problem of perpetual motion, we may wait till doomsday for a further solution.

With all due respect I would suggest to the Society of Antiquaries an inquiry that would be fruitful of much discussion, and that might in the end prove of practical importance to the public. The question is, whether this Thomas Cole, of Reading, was not the original of Old King Cole. If he were not, why did King Cole have three tailors, and why would not one tailor do for him? But I am ignorant on such minute points of knowledge, and must return to my hard narrative.

In the Tudor reigns, when plague ruled in London, as it often did, or small-pox, or other dreaded physical calamity, the kings, or queens, and their parliaments came and considered the affairs of the nation without fear in the town of Reading; and here up to the reign of Charles the First the Courts of Chancery, King's Bench, Common Pleas, and Exchequer were held during the Michaelmas Term.

The fine old monastery built by Beauclerc, once so gay and glorious, in which bold men went as plain Esquires and came out brave Sir Knights, was destroyed with the rest of the monastic institutions under the stern hands of Henry the Eighth and Thomas Cromwell in 1539. It was hard for the abbot and his men this destruction, specially hard; for on one occasion they had entertained the whole weight, royal and personal, of their gracious sovereign, and had done it in princely style. Not a fat capon in the abbey premises was there that was considered too good to line that capacious royal stomach; not a flagon of Rhenish in all those vast cellars that was considered too costly for the smacking lips of that majestic hogshead. Nevertheless, the old building, and rich fare, and swift humour, and strong dash of the bountiful, too, must go. It was a pity, but inevitable. How the poor must have felt it when, in the reign of the sixth Edward, weak maudlin boy! the Parliament passed diabolical enactments against vagrancy; and when the working men, who had previously been supported by the abbeys and chantries, and were now destitute, were whipped a first time and hung a second time if they begged, until human bodies were suspended more thickly than scarecrows in harvest time; when vagrancy was reduced by the actual destruction of those who were obliged to represent it. How, I say, must the poor of Reading in those horrible times have looked at the walls of the dear old abbey, and recalled the bright fires, and torches, and bustle, and kind faces, and good food, and warm shelter, and sighed for the past! To the violence connected with the destruction of the abbey a brutal deed was perpetrated. By connivance of the beast Thomas Cromwell, Hugh Farringdon, last Lord Abbot, was, with two of his monks, six months after the suppression of the abbey, viz., in November, 1539, hung, drawn, and quartered in Reading for the act of denying, in the mildest terms, the king's supremacy.

Mary, had she lived long enough, would doubtless have restored the abbey, for she liked Reading, and retired there more than once; but she, a woman whose original good heart was soured, and embittered by subjection to early insult and contempt, and who during her short reign found this subjection so sustained and enlarged, could do little but weep and resent, and anon weep that she had resented. The last chance of the

abbey, therefore, died with her; for Elizabeth, though she, too, liked Reading, hated "monkery," and was quite content to add to the ecclesiastical splendour of the town a jolly, good, high, well-stuffed and warm pew in one of the parish churches, in which *sanctum sanctorum* she herself could hear the service with supreme comfort to her bodily necessities, and, if needs be, take a quiet wink, and not be seen to do it; for she was very strong in that particular, and could bear a great deal of sleep without fatigue, that virgin queen.

With the destruction of the abbey, two Hospitals were also lost to the town. The one called the Leper Hospital, founded by Aucherius, the second Abbot; and the other was a Hospital founded by the Abbot Hugh, without the gate of the abbey, for the support of thirteen poor persons and thirteen poor *sick* persons, particularly lepers who belonged to the town, or strangers "who passed that way."

During the Parliamentary wars in the year 1643, Reading, after a siege, was given up to the Earl of Essex, who soon after taking it, voluntarily retired from it and let in the King's troops again, who in their turn held it until the Royal cause became altogether a failing one. The town thus became a prey to both parties in the course of the great revolution, and no town in the island suffered more.

In the last year of James the First, 1624, a wealthy London merchant, by the name of John Kendrick, a native of Reading, established a house in which the poor were allowed to work at reasonable wages, so that no man should have an opportunity of saying that he had not the means of work and of obtaining an honest livelihood. The plan went on successfully for some time, but in the Parliamentary wars the property was all but ruined. Originally woollen cloths were fabricated in the house, but afterwards, when the scheme was shorn of its larger pretensions, the house dropped into a manufactory for pins and for linen weaving. By some strange accident the house of John Kendrick obtained the name of the "Oracle," and to work in the oracle became a kind of loose term, meaning that the worker having nothing better to do laboured in this particular building. From this sprang, I doubt not, with a trifling perversion, the slang phrase still current of "working the oracle." After the Restoration an order was passed "that all begging poor should be set to work in John Kendrick's House," and in this century the house was still used; but in time it dissolved, and nothing now remains save the gates, which are in the possession of a private gentleman of the town. The money left by John Kendrick (who died on December 20, 1624,) has passed over to Christ's Hospital.

After the revolution Reading remained a slowly-improving and not very significant town, about which little history remains. At the present time it is a busy place, the commerce of it being mainly agricultural. The river Kennet is large enough for the admission of vessels of one hundred tons, and the exportations of flour, timber, and malt are large. The town itself is straggling and of ancient cast, but the streets are open, well-paved, and clean. Still, the curious may see the remains of the glorious old abbey and other objects of antiquarian interest. There are now a model prison, built after the style of the Pentonville, two workhouses, the Hospital, and several public schools. Lately, moreover, there have been established iron foundries and boat-yards, and one of the largest biscuit factories in the kingdom, employing 500 hands, is at work here, the proprietors being Messrs. Huntley and Palmer, but we may consider that the manufacturing capacities of the place are as yet in their infancy.

In 1851 the population numbered 22,175, and in 1861 it had risen to 25,045, a good sign of an increasing vitality.

The population above twenty years of age, numbering at the last returns 14,461, are classified as follows:—

Professional classes	669, or 4·6	per cent.
Domestic "	5,884, or 40·0	"
Commercial "	574, or 4·0	"
Agricultural "	632, or 4·4	"
Industrial "	5,365, or 37·1	"
Indefinite and non-productive	1,337, or 9·2	"

From these general notes on the past and present of Reading we may pass to those special points which most concern the Medical man, beginning with the Hospital.

THE ROYAL BERKSHIRE HOSPITAL.

The Royal Berkshire Hospital was opened in the year 1839, on May the 27th. It is a fine commanding building, with handsome entrance, and bold but simple exterior. It is built of Bath stone. There are departments for out- as well as in-patients. The Hospital was built on the letter H plan, but since the erection a chapel has been placed on the south side, which blocks up the entrance of air and destroys the advantage of direct ventilation. Of late two new and very handsome wings have been added.

Administration.

Number of Patients Admitted.

Since the commencement of the Hospital 14,971 patients have been treated within, and 25,569 out of the Hospital. The numbers have gradually risen from 304 in-patients and 270 out-patients admitted in 1839-40, to 726 in and 1361 out-patients admitted in 1863. This increase is due to the great and rapid increase in the population of the town. The Surgical operations amount to between forty and fifty each year.

Rules for Admission of Patients.

All persons who contribute in one sum not less than thirty guineas, or who make a benefaction of not less than £100 from money left at their disposal, are for charitable purposes governors for life.

Subscribers of two guineas or more annually are governors during the continuance of their subscription.

The Physicians and Surgeons of the Institution are entitled to recommend patients in the same manner as annual subscribers of two guineas, and are also governors.

Ministers making congregational or parochial collections, and other persons making collections for the use of the Hospital have the privilege of recommending patients for twelve months after the collections have been paid in, according to the following scale in proportion to the amount of the collection:—

From	4 guineas	to	12 guineas	.	1 In-patient	2 Out-patients.
"	12	"	20	"	.	2	"	4	"
"	20	"	30	"	.	3	"	6	"

But no such contributor is allowed more than one in-patient in the Hospital at the same time.

Annual subscribers and persons making benefactions in lieu of annual subscriptions are entitled to recommend patients according to the following scale:—

Benefactors of	or	Subscribers of	In-Patients in the Year.	Out-patien always on th Books.
15 guineas	. .	1 guinea	. . 0	. 1
30 . .	. .	2	. . 1	. 1
45 . .	. .	3	. . 1	. 2
60 . .	. .	4	. . 2	. 2
75 . .	. .	5	. . 2	. 3

At the same time no benefactor or subscriber to the amount of less than ten guineas per annum can have more than one in-patient at one time upon the books; and no benefactor or subscriber to any amount can have more than two in-patients at one time upon the books.

No person is eligible to the office of President or Vice-President who is not a benefactor of at least seventy-five guineas, or a subscriber of five guineas annually.

Only such persons who may appear to the Weekly Board to be real objects of charity are admitted as in-patients, except in cases of accidents or of pressing emergencies, when the House-Surgeon or matron is to receive patients without delay at any hour of the day or night.

Subscribers or benefactors may authorise any person to recommend patients in general for them in their right.

At every Weekly Board at least two beds are reserved for the accidents of the following week.

All in-patients are discharged at the end of eight weeks from the time of admission, unless the Physicians or Surgeons, after consultation, certify that there is a probability of a speedy cure or considerable relief, in which case such consultation and certificate has to be repeated every four weeks, as long as the patient remains in the Hospital.

A rule peculiar to this Hospital applies to the out-patients. These, on entry, have to pay one shilling, which is returned to them when they are discharged. This ensures an application for dismissal, and the history of the case is not lost.

Cases inadmissible.—No persons are relieved at the Hospital whose circumstances enable them to pay for their cure (unless upon some accident or pressing emergency, in which case it is expected that the patient so admitted shall reimburse the Hospital for the expense incurred).

No person is admitted or suffered to remain as an in-patient who is capable of receiving equal benefit as an out-patient.

No person labouring under confirmed consumption, primary venereal symptoms, or confirmed epilepsy, suspected to have the small-pox, itch, scarlet fever, measles, or whooping-cough, or apprehended to be in a dying state, or judged incurable, or disordered in the intellects, no children under seven years o

age, except in cases of severe accident, or requiring Surgical operation; and no woman in an advanced state of pregnancy may be admitted as in-patients, or, if inadvertently received, may be suffered to remain; neither, without the unanimous consent of the Board, is any case of club-foot admitted; all cases of secondary syphilis are specially reported by the Medical officers to the Board before admission.

No person is admitted a second time as an in-patient of the Hospital, unless for accident, until six months have elapsed from the day of the discharge of such patient, without a previous consultation of two Medical officers of the Institution.

No domestic servant while in place is admitted as an in- or out-patient unless the Board, from the peculiar circumstances of any case brought before them, thinks it proper to relax this rule in favour of servants receiving very small or no wages. Domestic servants of Governors, nevertheless, may be admitted as in-patients, on any day in the week, on their employers agreeing to pay for them at the rate of 12s. per week.

The income of the Hospital is derived from subscriptions, donations, congregational collections, lectures, and legacies. The subscriptions amount to about £1750 per annum. The total ordinary receipts amounted, in 1863, to £3389 16s. 5d., and the total ordinary disbursements for the same year came to £3246 4s. 6d.

The average annual cost of each patient per head may be taken at 12s., including all expenses. The average duration of a patient in Hospital is six weeks.

The Medical Staff.

The Medical staff of the Hospital consists of the following officers:—*Physicians*—Charles Cowan, M.D., Richard Woodhouse, M.D., and Edward Wells, M.D. *Consulting-Surgeons*—George May, Esq., and T. B. Maurice, Esq. *Surgeons*—F. A. Bulley, Esq., G. May, jun., Esq., and W. W. Moxhay, Esq. *House-Surgeon*—G. H. Davis, Esq.

It is gratifying to state that of the original Medical staff appointed in 1839, every member still lives, and is as yet connected with the Institution.

Sanitary Condition of the Hospital.

The Wards.

There are ten principal wards, with two large convalescent dining-rooms. In addition, there are seven small wards, which are intended to receive eye cases and special cases. Erysipelatous cases and burns are usually separated, and after the patients suffering from erysipelas have left the ward the walls are limewashed afresh. The number of patients admissible is one hundred, and attempts are not made to admit more.

Cubic Space, Ventilation, and Warming.

The cubic space allowed to each bed is fifteen hundred feet. The ventilation is now mainly effected by Mr. Peter Hinckes Bird's plan—"costless ventilation." There are also openings from the ceiling to communicate with brick shafts running alongside the chimneys, and there are zinc gratings on the floor, which communicate with the outer air. In the accident male ward a current of warm air is admitted through an opening over the mantelshelf by a separate shaft, which, coming from the open air, passes behind the fire-grate, and so gets heated.

The warming is by the open fire-grate. The grates are not constructed either to economise fuel or to give out heat; there is one grate in each ward.

Water Supply—Baths—Drainage—Lavatories.

The water supply is from the Reading Water Company, which has a continuous supply from the river Kennet. The water is raised into a reservoir at the upper part of the building. The supply is constant and pure.

There are four bath-rooms in the Hospital—two for males, and two for females. The baths are supplied with hot and cold water, and are convenient and good.

The drainage is considered very effective, the flushing being abundant. The sewage pours into a large cesspool at the back of the Hospital, and the fluid part is conveyed away by a barrel drain into the river Kennet. Ventilating shafts extending above the level of the Hospital building are about to be erected, to allow the escape of the cesspool air. The water-closets and sinks open from the wards; there are no lavatories proper, the patients, who are able, washing themselves at the sinks. This arrangement, so common in country Hospitals generally, is exceedingly objectionable. It is dirty and unwholesome, and not conducive to the discipline of the ward.

Lighting—Floors—Decorations.

The wards are lighted from both sides by windows which, in the old wards, reach to within four feet six of the ground. There is abundant light, and in the new wards the windows are so low that the patients can see into the fields without difficulty.

The floors are all of deal, and in the centre part of the Hospital are cleaned by being washed and scoured. In the new wings the floors are stained a light mahogany colour, and are varnished: they are cleaned by dry rubbing. The effect of the colour in these wards is good, and the dry method of cleansing is considered very advantageous.

The walls of the wards are painted brown, shoulder high; above they are whitewashed. There is no decoration that can be called such, except a few very common plates in the day-rooms. The result is, that the wards, though well lighted, are cheerless and inanimate.

The Nursing System.

There is simply one nurse to each ward; the matron of the Hospital is the head of the staff. The night nurses are hired; two ordinarily, more if they are required. The nurses on an average stand as one to sixteen patients in the day. The staff is insufficient by comparison with what is demanded in other similar institutions.

Diet of the Hospital.

Extra Diet.

Breakfast and Tea—Half a pint of coffee (or tea if ordered), with sugar and milk; bread at discretion, not exceeding sixteen ounces; butter, half a pound per week.

Dinner—Four and a-half ounces of meat, dressed, without bone, roast and boiled on alternate days, and half a pound of potatoes.

Supper—Half a pint of broth.—One pint of beer daily.

Milk Diet.

Breakfast—Half a pint of milk.

Dinner—One pound of rice pudding.

Supper—Half a pint of milk; bread the same as per Extra Diet.

Ordinary Diet.

Breakfast and Tea—The same as per Extra Diet.

Dinner—Three ounces of meat as per Extra Diet, and half a pound of potatoes.

Supper—The same as per Extra Diet.—Half a pint of beer daily.

Fever Diet.

Half a pint of tea morning and evening, with sugar and milk; seven ounces of bread daily; barley water *ad libitum*, arrowroot, etc., to be especially directed.

Alcoholics.

The amount of beer allowed per day is given in the diet table. Wine is taken to the extent of rather more than half an ounce per patient per day on the average; in addition there are consumed of spirits, in the form of gin or brandy, about the sixth of an ounce per patient daily, on the average.

PRACTICE OF THE HOSPITAL.

The Medical and Surgical practice present few specialities. There is no particular disease that more than another comes under treatment. Rheumatism is very common, and judging from the tables of cases admitted as in-patients, I should judge that malignant diseases were unusually rare. An inquiry into the prevalence of cancer in particular districts of the country, if conducted with great care, would, in my estimate, derived from what I have seen, be of immense public service. For example, in the Hospital at Norwich there are not less than from sixty-five to seventy cases of malignant disease treated annually; in Reading the number would not be one-fourth of this, allowance being made for the difference as to the numbers of cases treated altogether. Of course there must be some definite reason for this wide difference, and as we find that out of 154 cases of cancer treated at Norwich eight only could be proved as hereditary, and 100 could be proved as *not* hereditary, it seems to me that there must be some local and social causes at work for the production of the disorder that as yet have not been suspected.

Although the well-water of Reading and around is very hard, calculus is rarely met with, and lithotomy is not performed more than once or twice a year. I saw in the wards a curious case in which Mr. May, jun., had removed, by Allarton's operation, a piece of leather shoe-string six inches long from the bladder. The string was thickly encrusted with deposit, and it came out leaving the incrustation behind it; the deposit was removed by the scoop and by injection. The

median operation proved best in consequence of the greater facility with which the fragments could be removed.

Excision of the knee-joint has been performed altogether five times; the result has afforded a fair average; amputation had to be performed after one excision, necrosis and death followed another, and three recovered.

In cases of serious wounds, crushed and lacerated wounds, irrigation is employed. A bottle filled with cold water is suspended over the injured part, and the water is allowed to drop on the wound steadily for two or three days. The results obtained are considered exceedingly good.

The number of operations is about forty-five annually.

Mortality from Operations.

Immediately after the Hospital was opened, Mr. May, then Surgeon, and now Consulting-Surgeon, commenced a careful inquiry as to the results of operations. He continued this labour until 1845, and recorded his experience in a very concise and able treatise. In summing up the results of amputations, Mr. May showed that during the time stated, 1839-40 to 1845, the proportionate number of deaths from accidents was 1 in $5\frac{1}{4}$; from primary operations, 1 in $5\frac{3}{4}$; and from secondary operations, 1 in 3. Since 1845 no such accurate records have been kept; but Mr. Davis, the House-Surgeon at the present time, has been so good as to tabulate for me three years' operative practice, with the results of each operation. The facts are herewith subjoined:—

Operations for the Years 1861-3, *with Results.*

Amputations.

	1861.	1862.	1863.	Total.	Cured.	Died.
Of thigh	5	6	5	16	13	3
„ leg	4	5	2	11	10	1
„ arm	1	0	0	1	1	0
„ forearm	5	1	2	8	8	0
„ toes	1	0	1	2	2	0
„ fingers	7	6	11	24	24	0
„ shoulder-joint	1	0	0	1	0	1
„ knee-joint	0	0	2	2	2	0
	24	18	23	65	60	5

Mortality, 7·69 per cent.

Of these amputations, some were for old standing disease, others for accident. The two classes are divided as follows:—

Cases of Disease.		Cured.	Died.	Cases from Accident.		Cured.	Died.
Thigh	11	10	1	Thigh	5	2	2
Leg	7	7	0	Leg	4	3	1
Arm	0	0	0	Arm	1	1	0
Forearm	3	3	0	Forearm	5	5	0
Toes	1	1	0	Toes	1	1	0
Fingers	9	9	0	Fingers	15	15	0
Shoulder	0	0	0	Shoulder	1	1	0
Knee	1	1	0	Knee	1	1	0
	32	31	1		33	30	3

Other Operations, 1861-3.

	Cases.	Cured.	Died.
Lithotomy(a)	2	2	0
Hernia	4	2	2
Cataract(b)	7	7	0
Tumours	11	11	0
Excision of knee	4	3	1
Cancer of lips	8	8	0
Removal of eyeball	5	5	0
Tracheotomy	1	0	1
Removal of testicle	1	1	0
Excision of lower jaw	1	1	0
„ hip-joint	2	0	2
Total	46	40	6

Mortality, 13·04 per cent.

Chloroform.

Chloroform has been administered in the Hospital at least 800 times since its introduction into practice. The rule is, that the Physician colleague of the Operating Surgeon shall be the administrator, except in cases of emergency, when the House-Surgeon performs the duty. At one time Snow's inhaler was employed, but was at last thrown aside as cumbersome; and since then the simple inhaler of Dr. Murphy with Sibson's mouthpiece has been almost invariably employed. There has been no death from chloroform in the Hospital.

(a) One median, one lateral.

(b) Six excision, one needle.

General Mortality.

Dr. Farr places the mortality of the Reading Hospital at 43·06 per cent., or 9 per cent. above that at Norwich, but still moderately low. The returns of the Hospital, in which the deaths are calculated from the admissions, yield a mortality not exceeding 3·60 per cent. Whatever may be said for or against Dr. Farr's method, it is certain that it fluctuates in every Hospital in nearly the same line as do the statistics obtained by the more common method of counting deaths by admission. As a standard, Farr's method has many advantages.

Library and Museum.

A Library belonging to the Medical and Chirurgical Society is in the Hospital. There is also a museum containing several good specimens. One in particular claims notice. It is a mass, or, as the old men would call it, a tumour, of human hair, taken from the stomach of a young woman who had acquired the habit of chewing and eating her own hair. The mass, which is nearly seven inches long and five or six inches in circumference, is modelled to the shape of the stomach, and weighs nine ounces.

THE READING DISPENSARY.

The Reading Dispensary was founded about fifty years ago. It is a convenient building, and the labours of the Medical staff are many. Since its commencement nearly sixty-five thousand persons have received Medical relief from it. The numbers of patients now admitted annually reach nearly fourteen hundred. The income amounts to about £500 a-year: part of it being derived from subscriptions and donations, and part (£243) from dividends. The resident Surgeon devotes his whole time to the patients, and sees them at their own homes when from illness they are unable to appear at the Dispensary. The governors are entitled to have two patients constantly on the books for every guinea subscribed. Life governors have the same privilege in proportion to every ten guineas contributed.

Subscribers of half-a-guinea annually are entitled to have one patient constantly on the books; but have no voice in the management of the charity.

MEDICAL STAFF.

Consulting Physician.—Dr. Cowan. *Consulting Surgeon.*—T. B. Maurice, Esq. *Physicians.*—Dr. Wells, Dr. Woodhouse. *Resident Surgeon.*—H. Cooper, Esq.

PAROCHIAL MEDICAL PRACTICE.

The parochial Medical practice is divided into three districts. The districts and officers are given in the following table:—

Parish.	Population.	Acreage.	Medical officer.	Salary.
				£ s. d.
1. St. Giles's Parish ..	10,200	2,640	F. Workman, Esq.	97 10 0
2. St. Lawrence, with a workhouse	4,737	340	T. L. Walford, Esq.	72 0 0
3. St. Mary's, with a workhouse	10,941	1,890	W. B. Young, Esq.	105 0 0

There are two workhouses in Reading—St. Lawrence and St. Mary's. The total number of persons receiving in-door relief amounts to more than 160, composed mainly of the aged and infirm. The average cost per head is 3s. 6d. weekly. At Wargrave, near Reading, there is a district school for boys and girls, in which at the present time there are thirty-eight boys and forty girls—seventy-eight in all.

For some time past the question has been a prominent one in Reading—Whether it were not time to build a new union workhouse? The question, on its own merits, is not difficult to answer; for I should imagine that in the kingdom there is not another such a house as the St. Lawrence Workhouse. It is a continuation of the old workhouse of the town, the workhouse that did duty under the pure Elizabethan Act, but a part of a row of small houses has been engrafted into it, and the rooms are of the ordinary old dwelling-house, or, rather, almshouse type. It is unnecessary to say anything against the building, or to add that it would be lost time to attempt to introduce into it any of our modern sanitary improvements. I believe its faults are admitted universally, and that the remedy to be applied, when the time comes, is a new house spick and span.

CLUB PRACTICE.

Club practice in Reading is better than in most other towns. There is only one club at four shillings per head per annum, the usual sum being five shillings. Clubs are very numerous

in the district, and are extending immensely, the artisan classes who avail themselves so largely of the advantages of the club system being rapidly on the increase. They set a good example to clubs of other districts in their appreciation of the value of sound and faithful Medical services.

MEDICAL SOCIETIES.

There are three Medical societies in Reading—viz., the *Medical and Chirurgical* (Aston Key), the *Pathological*, and the *Aston Key Club*.

The Medical and Chirurgical Society.

The Medical and Chirurgical Society is a book society. An ordinary member pays two guineas a-year if he reside in the town and one guinea and a-half if he reside in the country. The subscriptions keep up a permanent library, which is housed in the Hospital, and is a good working collection of books and periodicals. The number of standard volumes amounts to between four and five hundred, and each member is allowed to have out two volumes at a time.

The Pathological Society.

The Pathological Society of Reading has for many years past taken a very distinguished position in Medical science. The meetings are held in the library at the Hospital every month, on the Wednesday nearest the full moon, at 7 o'clock. At the meetings morbid specimens are presented, and a paper is then read and discussed. The discussions, one of which I had the privilege of attending, are conducted with great good feeling and spirit, and the proceedings of the society, which are irregularly published in the Medical journals, deserve a better fate than they obtain. They should properly be published in full in a biennial volume.

The Aston Key Club.

The Aston Key Club is a private body, restricted to ten members. The members must all be resident in or near Reading. They meet alternately at each other's houses, and dine together, the dinner being of the plainest reasonable kind. The object of the club is to promote social intercourse, to encourage friendly sentiments, to sustain Professional respectability, and to guard the interests of the Profession. These objects have been most faithfully carried out, and with advantages little imagined by Practitioners in towns where no such element of accord prevails. Indeed, by the working of this society, the Profession of Reading is so united that no outside attack on its interests or independence could be long or successfully carried out.

Altogether, there is, perhaps, no town in England in which the Medical men are more heartily of one mind or firmly bound together by the ties of mutual respect, confidence, and, I may say, warm and sincere friendship.

SANITARY CONDITION OF READING.

Population.

The area of Reading extends over 4609 acres, and the population has been increasing for the past twenty years with remarkable rapidity. In 1841, the people numbered 19,521; in 1851 they reached 22,175; and in 1861 they reached 25,045. This increase is due to the encouragement that has been given to the industrial arts, and to the traffic resulting from railroad communication which the town now possesses, and which brings it readily into communication with all parts of the island.

Value of Life.

The following return from Dr. Farr's tables shows the

Average Annual Rate of Mortality in Reading from all Causes, at Different Ages, to 100 *Living, during the Ten Years* 1851-60.

	Males.	Females.
All ages	2·344	2·017
Under five years	6·166	5·599
Five to ten	·814	·835
Ten to fifteen	·371	·502
Fifteen to twenty	·681	·772
Twenty to twenty-five	1·035	·712
Twenty-five to thirty-five	1·124	·958
Thirty-five to forty-five	1·505	1·115
Forty-five to fifty-five	2·381	1·484
Fifty-five to sixty-five	3·463	2·998
Sixty-five to seventy-five	7·656	6·321
Seventy-five to eighty-five	18·468	13·750
Eighty-five and upwards	35·000	27·241

Mortality from Different Causes.

The average rate of mortality in the town from different causes is also subjoined from the same source of information:—

Average Annual Mortality in Reading from Different Causes, to 100 *Living, from* 1851 *to* 1860.

	Males.	Females.
All causes	2·344	2·017
Typhus	·064	·061
Cholera, diarrhœa, and dysentery	·107	·095
Other zymotic diseases	·290	·262
Cancer	·038	·087
Phthisis	·334	·310
Scrofula, tabes mesenterica, and hydrocephalus	·107	·080
Disease of brain	·247	·229
Disease of heart and dropsy	·183	·145
Disease of lungs	·354	·257
Diseases of stomach and liver	·143	·113
Diseases of kidneys	·075	·026
Violent deaths	·125	·046
Other causes	·277	·306

Water Supply.

The town is supplied with water from two sources:—1. From deep wells, which are sunken in the chalk, and are derived from the Thames; this water is very hard, but clear; 2. From a water company, which draws its supply direct from the river Kennet. This supply is constant, and at high pressure; the water is clear, but moderately hard and pure.

Drainage.—Soil.

There is no systematic drainage in Reading. A few houses on the banks of the Kennet possess drains which run into that river, but the sewage generally flows into cesspools. The sewage is collected from the cesspools by the night-carts, and, mixed with ashes, is manufactured into manure. Surface drainage is general. The soil varies: the town is placed just on the edge of the London basin; in the cuttings clays of various colours are met with; but, in fact, the town rests in main part on a basis of chalk. The site, consequently, is dry. The centre of the town is on alluvial soil, with the river Kennet passing through.

Streets and Dwellings.—Diet of the Poor.

The streets are wide, except in a few instances; and the houses are open and exposed to free currents of air. Some of the houses are very old, and of the true pointed style. The house in which Queen Elizabeth was wont to stay in her visits still remains. Taking it all in all, the poorest people are housed in moderate comfort. The diet of the poor also is good, and has improved wonderfully in the past few years, since industrial art began to combine with mere agricultural drudgery and toil.

Epidemics and Endemics.

Reading has for ages past been reckoned a healthy town. It was indeed, as we have seen, so healthy in the middle ages that it became a sort of royal hiding-place from the great plagues of London. I cannot learn that any specific epidemic was common to it, or that it ever owned a disorder of an endemic and abiding character. In the epidemic of cholera in 1848 the disease appeared and extended somewhat severely. The first case occurred in Sun-street, in the parish of St. Mary, on September 1. The wife and child of a dyer were the victims. Then the disorder traversed Coley-street, Coley-terrace, and Gun-street, destroying three more lives. There were twenty deaths in this parish, also, from diarrhœa. In the parish of St. Lawrence, during the same year, two persons, adult women, died of cholera, one at Blake's Wharf, on June 15, and another in Oxford-street, on July 15. There were nine deaths in the same parish from diarrhœa. In the parish of St. Giles there were ten fatal cases of cholera and fifteen of diarrhæa. The attacks of cholera and diarrhœa in this district did not appear until December, 1848, but continued until the middle of January, 1849, and destroyed, as I have stated, twenty-five persons. In one case, in a house in Silver-street, five members of the same family succumbed. From January, 1849, until July 25, the disease did not recur, when on the latter date a man died of the malady in Thames-street, and thereupon the disease spread for three weeks and destroyed four more patients. In 1854 cholera again invaded the place, and seven persons died of it, thirty-three also sinking from diarrhœa.

The history of the outbreaks of cholera in Reading is very instructive. It is obvious from the distance between the

outbreaks that the disorder each time was imported and wore itself out in a locality not convenient for its propagation. Supplied with water in great part from the river, which is not a common sewer, the great channel by which the disease is conveyed remained uncontaminated.

VACCINATION.

Vaccination is carried out very indifferently. Some time since, in 1861, an epidemic of small-pox having prevailed in the town, the guardians issued a notice to the parents of all children that had not been vaccinated, stating that the legal fine would be enforced if the operation were not performed. At first this proceeding was perfectly successful, but it was soon found that the Act could be evaded by getting a certificate of unfitness from a Medical man, and that, too, even after a summons had been taken out. It was also discovered that no provision had been made for the payment of expenses if in any case a prosecution failed. The attempt to enforce vaccination, therefore, was soon abandoned, and now if small-pox were to enter the town a brisk epidemic might be expected, that would not fail to last some time and to levy severe contributions on life.

SOCIAL NOTES.—CONCLUSION.

In concluding this history of Reading, I may remark that the Gaol, built after the model of the Pentonville, and the second of that construction, is a model in a sanitary point of view. The deaths occurring in it have for years past not exceeded one per annum, and epidemics are unknown.

The number of public-houses in Reading where spirit is sold is 100, and of beer-houses 130.

Prostitution largely prevails. There are 7 known brothels, 116 recognised prostitutes over sixteen years of age, and 4 under sixteen.

In the way of crime, 37 males and 8 females were charged with indictable offences, and 349 males and 57 females with summary offences during the past year.

REVIEWS.

Clinical Observations on Diseases of the Heart and Thoracic Aorta. By PEYTON BLAKISTON, M.D., F.R.S., Fellow of the Royal College of Physicians; late Physician to the Birmingham General Hospital; formerly Fellow of Emmanuel College, Cambridge. Longman, Green, Longman, and Co. 1865. Pp. 316.

DR. BLAKISTON is so well known as an accomplished Physician, an acute and accurate observer, and close thinker, that anything from his pen will be gladly received by the Profession. He published a valuable work on "Diseases of the Chest" in 1848, but since then, with the exception of a few papers in the Medical journals, has not contributed anything to Medical literature. Now he gives us a small but weighty volume of clinical observations on diseases concerning which he is an acknowledged authority, and we are sure that the appearance of this child of his life experience and judgment will be hailed with no slight interest and satisfaction. We have called the volume weighty though not large, for it is rich in illustrative cases; it gives the observations and experience of some thirty years of extensive practice, and Dr. Blakiston appears to us to possess in an eminent degree the art of clothing what he has to say in simple, clear, and forcible language, without any superfluity of phraseology, or "darkening of counsel with words."

In the introduction our author gives a very brief but clear *resumé* of some of the chief changes and advances which have been made of late years in our knowledge of the pathology, diagnosis, and treatment of many diseases. With regard to the latter he notices especially the "gradual but decided change which has taken place in the treatment of acute diseases," consisting "not merely in the discontinuance of copious venesection and violent purging, but in the employment of stimulants, sometimes to a great extent." This change, he considers, "has resulted not so much from an increased knowledge of the nature of disease, and of the chemical changes that take place within the body, or from the researches of any one person, as from the careful study of the progress and termination of various diseases by many clinical observers," and he makes no attempt to solve the vexed question of change of the type of disease or of the constitution of man. He appears himself to have been led to begin the use of stimulants by his observations of the influenza of 1837, and to have slowly and cautiously felt his way to their free and extensive employment. He gives the following conclusions as the results of his nearly thirty years' experience:—

"1. The administration of stimulants was found advantageous in the great majority of acute diseases.

"2. The earlier they were given, the less was the amount required in the course of the illness.

"3. When given in an early stage of the disease they seemed to shorten its duration in some cases, and in all to induce a speedy convalescence.

"4. On the contrary, when the administration of stimulants was deferred, the course of the disease and the convalescence were more protracted, and much larger doses were required.

"5. When the slightest sign of intoxication appeared, it was taken to point to the necessity of an immediate and considerable reduction in the amount.

"6. No other symptoms appeared to call for their discontinuance.

"7. When suddenly and totally discontinued during the course of the illness, serious, and in some cases fatal, effects ensued.

"8. In no case was a habit of drinking known to be induced, and very rarely was any chronic disease seen to arise out of the acute attack."

These conclusions, like all others given in the work, are supported by cases. We will add that Dr. Blakiston states he has administered alcohol, "not as a nutriment or food," but "as a medicine."

In the body of the work, Dr. Blakiston treats first of the pathology of diseases of the thoracic aorta, of the pericardium, and of the heart; then of the diagnosis in the same order; and lastly, of treatment; and we think the fact that, while he devotes some 260 pages to pathology and diagnosis, about 40 pages suffice for what he has to say on treatment, may be taken as a proof that he writes from a ripe and clear knowledge of his subject. By his work on "Diseases of the Chest," Dr. Blakiston helped largely to clear up and increase our knowledge of diseases of the heart; in his present one, he gives the following conclusions derived from the study of a large number of cases of these affections:—

"1. Except in conjunction with regurgitation through the auriculo-ventricular orifices; hypertrophy of the ventricles rather assists the circulation than promotes arterial congestion; and consequently *hypertrophy of the left ventricle is not a frequent cause of cerebral or general congestion.*

"2. A considerable amount of disease producing obstruction and regurgitation at the aorta, and obstruction at the mitral orifice, may exist without seriously affecting the general health in consequence of prolonged systolic action of the heart.

"3. Mitral regurgitation is one of the most direct and frequent causes of pulmonary venous congestion.

"4. Disease of the tricuspid valves, mostly of inflammatory origin, and impairing their efficiency, is found nearly as frequently as similar disease of the mitral valves in *fatal* cases of heart disease.

"5. Tricuspid regurgitation is the most direct and most *constant* cause of that engorgement of the vessels of the brain and of the general circulation, with their consequences, which originate with the heart."

Of course, we do not present these conclusions as being in all points indisputable, but as well worth consideration as the conclusions arrived at by a Physician of such eminence as our author.

In like manner, we commend to the notice of our readers the "conclusions" as to the signs of thoracic aneurism, and the "general conclusions" as to the diagnosis of diseases of the heart. Dr. Blakiston's treatment appears sound, rational, and judicious, but we have not observed anything new in it; such, indeed, was not to be expected.

We are happy to observe, that where the advance of Medical science requires alteration in what the author has formerly written, he does not hesitate to acknowledge it—as in the explanation of the cause of the first sound of the heart, and in the action of digitalis. Dr. Blakiston is a great admirer of pepsina porci; he considers that it "is, certainly, one of the most valuable medicines that has ever been discovered," and he supports his opinion by the relation of some certainly very striking cases.

We have not room to say more, but hope that we have said enough to induce men to read Dr. Blakiston's work; we believe that they will acknowledge it to be a valuable addition to our works on Practical Medicine.

It is handsomely printed, and supplied with a good table of contents and a copious index.

Letts's Medical Diary for the Year 1865, *Especially Providing for all Matters Connected with Daily Visits, etc.* Letts, Son, and Co., London, E.C.

This diary is so well known in the Profession that it requires no lengthened description. If a Medical man will really conduct his business by its help, using its pages exactly as the book prescribes, we are sure that by the end of the year his habits of precision and exactness will have had good and useful exercise. We cordially recommend it for general use in the Profession. It is well arranged, inexpensive, portable, and neat. If it is required, the diary may be fitted with an instrument-wallet, containing a set of pocket instruments.

GENERAL CORRESPONDENCE.

MANAGEMENT OF THE THIRD STAGE OF LABOUR.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have observed with much pleasure a paper read by Dr. Eastlake, at the meeting of the Obstetrical Society, November 2, upon "the Management of the Third Stage of Labour," and I find that the views he advocates so exactly coincide with my own that I trust he will forgive me in laying a prior claim to pointing out the importance of making firm pressure on the fundus uteri at the moment the child is being expelled, and of an earlier interference in the removal of the placenta than is usually advised in our manuals of obstetrics. If Dr. Eastlake will kindly turn to the *Medical Times and Gazette* of August 27, 1864, he will see that the only difference between us is, that I direct the nurse to make the pressure whilst I am engaged in removing the child, and that as quickly as possible I proceed to extract the placenta; whereas he, I presume, presses with his own hand, and removes the placenta within a quarter of an hour. From the discussion which followed upon Dr. Eastlake's paper, it seems that our best accoucheurs are fully alive to the value of pressure over the uterus; but why is it not alluded to in our text-books? I feel quite convinced that the majority of Practitioners engaged in midwifery cases, after the child is born, allow themselves and the uterus a rest—in fact, "wait for a pain," the placenta all the time lying in the vagina, or half in the vagina and half in the uterus, the number of clots and the reddened sheets showing too plainly how much blood has been wasted for want of a little attention.

I find that when patients have delayed sending for me until the last moment, and the child is born before my arrival, and the placenta still remains, that the hæmorrhage is invariably considerable, and the hand placed on the abdomen feels the uterus flabby instead of being hard and firm as a ball, and I believe this to be exactly the condition of matters where the stimulation and support of pressure are omitted. I always find when I grasp the uterus that it immediately becomes reduced in size, and I can feel the placenta leaving the womb as easily as one can a thick substance passing from an india-rubber bottle when squeezed. My practice is, if the nurse has not already pressed the placenta away, to make pressure with the left hand, and to hold the cord lightly to ascertain where the placenta is and how it is moving (as Dr. G. Hewitt says), but I make traction if the placenta is large and does not readily come away. I have adopted this method since I have been in practice (five years), and although I have attended several hundred cases, I have never met with one of retention from irregular contraction and only one of adherent placenta, and I think these would be rare occurrences if more care and attention were bestowed upon the third stage of labour.

I am, &c.

December 6. Celer et Audax.

The Alleged Murder by Poison at Manchester.—A woman, named Ann Carrigan, was brought before the magistrates at Manchester last Saturday week, and remanded, on suspicion of poisoning a woman, named Ann Conway. The remains of some medicine given to the deceased had been examined, and were believed to show traces of arsenic. A subsequent analysis by Professor Roscoe has removed that impression. Mr. Roscoe says he has failed to trace either arsenic or any mineral poison in the medicine. The error was caused by using sulphide of ammonium in place of sulphuretted hydrogen gas, the addition of an acid causing a precipitate of yellow sulphur, which was erroneously taken to be sulphide of arsenic. The woman was discharged by the magistrates on Saturday, after being in prison a week.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, December 13.

Richard Partridge, Esq., F.R.S., President.

Dr. Isaac Pidduck read a paper on

THE CAUSES AND PREVENTION OF INFANT MORTALITY.

The design of this paper is to designate the causes of excessive infant mortality with a view to its prevention. These causes may be regarded in a twofold aspect—the hygienic and the Medical. Under the former are comprised all that relates to the health of infants; under the latter, everything that pertains to the health of the parents. It was to the last two points that the attention of the Society was more especially invited, since it has not hitherto received that anxious consideration which its infinite importance demands. This is the standpoint upon which the whole question rests. Statistics reveal the appalling fact that more than one-half of the children born die within five years of their birth. But this only comprises children born at the full term; it does not include miscarriages, still-born infants, and those who die immediately after birth; not to mention numerous cases of infanticide, whose deaths are not registered; if these were added, it is obvious that the death-rate would be very much higher. The preventable causes which produce this alarming result are comprised under the following heads:—1. Sexual excesses. 2. Syphilitic diseases. 3. Excessive indulgence in tobacco-smoking, snuff-taking, and chewing, and of spirit-drinking. 4. Unhealthy occupations, such as mining and metallurgic operations. These principally pertain to the fathers; those which more especially belong to mothers are:—1. Indulgence in idle, luxurious habits. 2. Sedentary occupations, factory and agricultural labour. 3. Deficient nutriment, the want of which is too often supplied by excessive tea-drinking, if not by stimulants of a more pernicious kind. Mental distress arising from domestic troubles and from the loss of children. And lastly, as a consequence, debility occasioned by hæmorrhage and leucorrhæal uterine and vaginal discharges, especially during utero-gestation. It is by the combined operation of these causes that the health and vigour of the parents is undermined, which tends to the production of a puny, non-viable offspring. These are *fons et origo malorum*. The proximate causes of infant mortality are as various as the diseases to which they are liable, and as such they are registered; but the remote, which are the true causes, are the enfeebled constitution of the parents. A brief statement of a few out of the many cases presented at the Bloomsbury Dispensary follows, in which one child after another, in some as many as five out of six, in others all the children, have died in infancy. In all these cases the cause is clearly traceable to the habits and health of the parents, and for the most part is preventible. The question arises—To what state of infantile constitution does the action of the remote causes give rise? It may be answered in one word—*tuberculosis*. The symptoms of tuberculosis, being a *blood* disease, may be manifested in all the tissues of which the body is composed; in short, there is scarcely a disease which is fatal in infancy and childhood that may not be referred to some form of tuberculosis, and that this is in the great majority of instances congenital, post-mortem investigations of infants clearly demonstrate. In the temperance movement it was long before people could be made to believe that intemperance is destructive of health and the real enjoyment of life; but by reiterated statements of facts and reasoning upon them a deep impression has been made, and habits of intemperance amongst respectable classes have been considerably diminished. So in this case, by a repetition of the causes producing such excessive infantile mortality, an impression may be made upon the minds of parents favourable to the health and longevity of their offspring. To this end would be conducive early marriages, the marriage of our sailors and soldiers, extending to children the motives for temperance in parents and newly-married couples; the duty of capitalists to promote the health of their labourers by every means in their power; and lastly, subjecting mothers who are suffering under exhausting discharges during utero-gestation to a course of treatment directed to their cure.

Dr. Webster said that he agreed with the author in attaching importance to the condition of parents before the birth of

the children, but he thought the author had not paid enough attention to the circumstances of the children after birth. The practice of feeding children artificially he felt certain was one great cause of infant mortality. Nearly 50 per cent. of children under 5 years of age die from want of breast-milk in London. He thought also that improper clothing tended greatly to increase the mortality, and related an instance in which a child was much exposed to cold in a perambulator, being dressed in crinoline, his legs being bare and blue. Dr. Webster said that fortunately there were no Foundling Hospitals in this country. Children left at Foundling Hospitals often died in a few hours. In the Foundling Hospital at Oporto nearly 70 per cent. died in one year. The largest Foundling Hospital in the world was at Moscow. Since that Hospital was founded there had been half-a-million entries, and lately twelve thousand annually. The mortality in this institution was, Dr. Webster said, dreadful. He then remarked that, contrary to what was generally supposed, the mortality of infants in London was less than in the provinces. It was 40 per cent., but in the whole of England 45 per cent. In manufacturing towns it was 50. On the Continent it was worse, and in New York worst of all—viz., 59 per cent. In Russia, on account of the severity of the climate, it was very large. During the winter in Russia children are not allowed to go out at all, and this long confinement no doubt tended to increase the mortality. Dr. Webster thought the influence of tobacco-smoking in the parents ought to be taken into account, but he believed its pernicious influence was chiefly manifested in preventing procreation. He thought with the author that the use of spirits by the parents was very pernicious, but spirits were often also given to children, as they frequently were, Dr. Webster said, in Scotland. Again, it was often remarked in that country that the first-born was deficient in mind and body, and this was ascribed to the circumstance that the bridegroom was generally drunk on his wedding-night.

Dr. Greenhow said he could not help thinking that the author had gone rather wide of the mark. All would allow that unhealthy parents would have unhealthy offspring, and all would admit the bad influence of unhealthy habits on the offspring. Yet there are other causes of far greater moment in manufacturing towns. He (Dr. Greenhow) thought that Dr. Webster had hit on the chief thing when he spoke of infant feeding. Then as to occupation. No doubt it had an influence, but not in the way the author imagined. The author had instanced mining as an occupation likely to increase mortality in children. Now, having been one of a Royal Commission to inquire into the health of miners, he (Dr. Greenhow) could say with confidence that the wives and children of miners were remarkably healthy. He believed the real and great cause of excessive infantile mortality in manufacturing towns was the employment of women in factories. They kept at work nearly up to the time of their confinement, and went to it again soon after. Thus, their children were improperly fed, and besides were drugged. One druggist in a manufacturing town stated that he sold four hundred gallons of laudanum yearly, and that most of it was given to children. The sale of Godfrey's cordial also was immense. There were the same results in those agricultural districts where women were employed in out-door work.

Dr. Thomas Ballard said that he was much interested in the question of infantile mortality, and thought the author had not rightly estimated its causes. He thought the author was in error in saying that one-half the children under five years old die; it was only one in four. He thought, too, that the author attributed too much to causes operating before births. He (Dr. Ballard) believed the chief source of danger to life in infancy was the traditional error in the nursery that the child's bowels should be kept in a state of looseness. Everything in the way of treatment seemed to resolve itself into mercurial purgatives, under such names as teething and cooling powders. He held that if a child was brought up without any abdominal disorder it was likely to thrive.

Dr. Merriman said that no one had spoken on the way in which food ought to be given. It was generally given too thick, and if a child had food too thick purges must be administered. If, on the contrary, the child were allowed to suck, purgatives would not be required.

Dr. Graily Hewett added his testimony to that of other observers as to the relative importance of what occurred after birth. He attached the greatest importance to breast milk during the first few weeks, but less afterwards. The importance of breast milk was well illustrated by a case he had recently seen. A woman brought to him her fourteenth child—puny, jaundiced. All the others had died in infancy, She had never been able to suckle one of them. He thought also that the author took too hopeless a view of the curability of tuberculosis. He (Dr. Hewett) had seen cases get well.

The Author said that his attention was directed to the subject of his paper forty-eight years ago. He was then told that the children of mothers who had had leucorrhœa and other vaginal discharges were subject to hydrocephalus, and he still believed this had a great influence. He agreed that great attention should be paid to the circumstances of the children after birth, but he thought we ought to begin with the parents. If children were born with a low vital capacity they would be more liable to suffer from unfavourable circumstances after birth.

Mr. John Morgan read a

CASE OF ULCER OF THE LOWER PORTION OF THE ILEUM, COMMUNICATING WITH THE BLADDER.

A gentleman, aged sixty, having been much in tropical climates, but without having had severe dysentery, in March, 1862, first complained of a fulness in the left groin, which, though undefined for some weeks, increased in the following six months to a considerable size. It was attached posteriorly, painful on handling, and seemed to interfere with the functions of the bowels, which from having been generally relaxed, became unusually torpid. In April, 1863, he began to pass fæces by the urethra, at first slight in quantity, but soon the whole intestinal contents were discharged through this channel. Under the pain and irritation thereby produced, the health soon gave way, and he died six months after the first appearance of fæces in the urine. A post-mortem examination showed that the tumour had quite disappeared. On opening the abdomen the ileum was found dilated into a large pouch, for an extent of five or six inches, when within a short distance of its junction with the colon. The coats of the intestine were attached firmly to the inner wall of the abdomen and also to the bladder, and an ulcer, the size of a sixpence, was found opening directly into the bladder, at the fundus of this organ. No other spot of ulceration was observed in any other portion of the intestine.

Mr. Moore had seen one case somewhat like that related by the author, but the excreta took the opposite course. The bladder was hypertrophied, and very little fæces passed by the urethra, but were returned into the bowel. In this case, too, life was more prolonged, and the patient ultimately died of red softening of the hemispheres of the brain. There was greater suffering than occurred in any form of disease except cancer.

Dr. John Clarke said that the reading of the paper reminded him of two cases, in one of which there were adhesions of the descending colon and bladder, but no opening in the bladder. Death took place from peritonitis, and at the autopsy the walls betwixt the colon and bladder were found to be as thin as tissue paper.

Mr. Curling said the case related by Dr. Clarke differed from the one related by the Author, as in such a case had perforations actually occurred relief might have been afforded by opening the colon in the loin.

OBITUARY.

William Senhouse Kirkes was born in the year 1823, at Holker, near Cartmel, Lancashire. His education was commenced at the grammar-school at Cartmel, but at an early age he was placed under the care of Messrs. Smith and Harrison, and of Mr. Langshaw, Surgeons in Lancaster, with whom he remained five years.

In 1841 he entered the Medical school of St. Bartholomew's, and the memory is not yet lost of his industry, talent, and blameless life. In the school examinations, he was in 1842 first in Chemistry, in 1843 first in Surgery, in 1844 first in Medicine, Midwifery, Medical Jurisprudence, and Clinical Medicine, and obtained also the collegiate prize. In 1846 he took the degree of M.D. at Berlin; in 1850 he became Licentiate, and in 1855 Fellow of the Royal College of Physicians. In 1856 he was Gulstonian lecturer. In 1848 he was appointed Medical Registrar and Demonstrator of Morbid Anatomy to the Hospital, and in 1854, after a close contest, Assistant-Physician, becoming full Physician in 1864 on the retirement of Dr. Burrows. He was also successively lecturer in the Medical school on botany and joint lecturer on Medicine.

The well-known handbook on Physiology was first published by him in 1848 in conjunction with Mr. Paget, the last three

editions—viz., the third, fourth, and fifth—appearing in his own name only. He was also the author of numerous papers in the Medical journals, some of them of no small value, and of an essay on embolism in the Medico-Chirurgical *Transactions* for 1852. This, the first English essay on the subject, was founded on researches of his own, the originality of which was in nowise impaired by the publication but a short time before of some papers by Virchow containing similar views. He was an active member of both the Pathological and the Medico-Chirurgical Societies, and at the time of his death was on the committee recently appointed by Government to investigate the subject of syphilis. He had also been for some years indefatigable in collecting materials for a work on diseases of the heart. He died on December 8, 1864, of double pleuro-pneumonia with pericarditis, after an illness of only five days.

Such is the brief outline of a life whose work might well have been spread over twice the number of years allotted to him. His success, the full fruits of which he was not allowed to reap, was owing to himself alone. His own merits, the good work he had done, the capacity he had shown, placed him on the staff of St. Bartholomew's Hospital in spite of powerful interest and of all but unbroken custom. Accurate in diagnosis, skilful in treatment, a worthy successor of the great men whose names adorn the roll of St. Bartholomew's Hospital, kind to his patients, ever ready to teach, a prudent and faithful adviser, gentle in act and word, he was yet himself unconscious of the varied excellence of his own character. His loss will be felt widely beyond the circle of his own Medical school, though most deeply there, for his finished work is but the earnest of what was with just confidence expected from him in the future; and though that work may be continued by others, his friends have sustained a loss which time can never perfectly repair.

MEDICAL NEWS.

UNIVERSITY OF CAMBRIDGE. — NATURAL SCIENCES TRIPOS.—DECEMBER, 1864:—

Examiners.—Peter Wallwork Latham, M.D., Downing College; Churchill Babington, B.D., St. John's College; Samuel George Phear, B.D., Emmanuel College; William Henry Brown, M.A., Caius College.

First Class.—Ds. Danby, Down; Bradbury, Down; Rankin, Trin.; Cooper, Caius, and Strutt, Hon. A., Trin., equal.

Second Class.—Ds. Layton, Queen's; Hodgson, Trin.; Darroch, Trin.; Callis, Cath.; Barclay, Trin.

Third Class.—Ds. Chambers, Trin.; Wilson, Caius; Jones, Queen's; Berens, Trin. Hall.

APOTHECARIES' HALL. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, December 15, 1864:—

William Clement Daniel, Heath House, Commercial-road; Warren Edger, Kirkby Stephen, Westmoreland; Charles William Dawson, York; George Jackson, Plymouth; Edward Cresswell Haden, Dudley.

The following gentlemen, also on the same day, passed their First Examination:—

John Raby, St. Thomas's Hospital; Robert Gear Roper, St. Bartholomew's Hospital; Frederic Henry Ward, St. Thomas's Hospital; Benjamin Chaston Gowing, Guy's Hospital; Joseph William Smith, King's College Hospital; Henry William Alexander Mackinnon, King's College Hospital.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.—Names of Candidates who passed the Major Examamination, December 21, as Pharmaceutical Chemists:—

Henry Barton, Newark; William L. Dobinson, Bishopwearmouth; William King, Huddersfield; Robert J. Rastrick, Southsea: Robert J. Sells, Canterbury; Benjamin Shaw, Wakefield; George Shepperley, Nottingham; James Tait, Glasgow; Joseph Walker, Bootle.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BAKER, WILLIAM M., M.R.C.S. Eng., has been appointed Assistant Demonstrator of Anatomy at St. Bartholomew's Hospital.

BEVERLEY, M., M.D., has been elected House-Surgeon to the Norfolk and Norwich Hospital, Norwich.

CALLENDER, WILLIAM, M.R C.S. Eng., has been appointed Medical Officer for the Felton District of the Alnwick Union.

CHAMBERS, T. KING, M.D. Oxon, has been elected Consulting Physician to St. Mary's Hospital.

DAY, EDWIN E., M.B. Lond., has been elected Accoucheur to St. George's and St. James's Dispensary, King-street, Golden-square.

ELLIS, EDWARD, M.D. St. And., has been elected one of the Hon. Medical Officers of the Royal Pimlico Dispensary and Lying-in Institution, Upper Belgrave-place.

FAIRBANK, FRANCIS C., M.R.C.S. Eng., has been appointed Officer of Health by the Doncaster Corporation.

FORSHAW, Mr. T. G., has been appointed Dispenser to the Infirmary and Dispensary, Bradford, Yorks.

HAIGH, THOMAS N., M.R.C.S. Eng., has been elected Assistant-Resident Medical Officer to the Leeds Public Dispensary.

KNOWLES, HENRY, L.R.C.P. Edin., has been elected House-Surgeon to the Birmingham and Midland Free Hospital for Sick Children.

M'LEOD, N. F., M.D., has been elected House-Surgeon to the Paisley Infirmary.

QUIN, J. N., M.R.C.S. Eng., has been elected an Assistant Resident Medical Officer to the Leeds Public Dispensary.

STEWART, Mr. J., has been appointed House-Apothecary to the Bridgewater Infirmary.

TURNER, A. N., M.R.C.S. Eng., has been appointed Assistant Demonstrator of Anatomy at St. Bartholomew's Hospital.

VERNON, J. B., F.R.C.S. Eng., has been appointed Assistant Demonstrator of Anatomy at St. Bartholomew's Hospital.

WILLETT, ALFRED, F.R.C.S. Eng., has been appointed Assistant Demonstrator of Anatomy at St. Bartholomew's Hospital.

DEATHS.

BENNETT, H. P., M.R.C.S. Eng., at Saltash, on November 19, aged 33, late of Dominica, West Indies.

BULL, CHARLES, Surgeon, at Catton-grove, Norwich, on December 5, formerly of Diss, Norfolk.

DAVENPORT, CHARLES T., at High-street, Tunstall, Staffordshire, on December 16.

FAIRBAIRN, WILLIAM C., L.R.C.S. Edin., Assistant-Surgeon R.N., on board H.M.S. *Steady*, on the North American Station, on November 13.

HYDE, CHARLES H., L.R.C.S.I., at Longford, Ireland, on November 29, aged 37.

HOLMES, THOMAS, Surgeon, at Cannock, Staffordshire, on December 1, aged 55.

GODFREY, JOSEPH JAMES, M.R.C.S. Eng., at Belvidere House, Princes-park, Liverpool, on December 14, aged 76.

JORDEN, WILLIAM P., M.R.C.S. Eng., at 14, Lower Belgrave-street, Belgravia, S.W., on December 11, aged 56.

LOGAN, WILLIAM, L.R.C.S. Edin., at Milngavie, Stirlingshire, on December 5, aged 35.

MURPHY, ROBERT F., L.K.Q.C.P.I., at Pearemount, Rathgar, Ireland, on December 11, aged 57.

PATERSON, ALEXANDER, L.R.C.S. Edin., of the African mail s. s. *Retriever*, at the Mission House, Old Town, Old Calabar, on November 1.

SELBY, JAMES, Surgeon, at Hepburne, Victoria, Australia, on September 24, aged 47.

SHAW, JOHN, M.R.C.S. Eng., at Attercliffe, Sheffield, on December 4.

SIMPSON, GEORGE, Jun., M.R.C.S. Eng., at Gower-street, Bedford-square, on December 19, aged 35.

TIPPETTS, EDWARD, M.R.C.S. Eng., at Elm-terrace, Brompton, S.W., on December 19.

WELLS, WILLIAM, M.D., at Sea, on his way to China to open a Medical Mission at Hang Chow, on October 15.

WALKER, ROBERT, M.D. St. And., at Mosley-street, Manchester, on December 11, aged 48.

ROYAL COLLEGE OF SURGEONS.—The Christmas Preliminary General Examination for the diploma of membership of this College, and conducted by the College of Preceptors, terminated on the 22nd inst. Nearly ninety candidates offered themselves, being a slight increase over the corresponding session in 1863. The following summary of the subjects in which the candidates were examined may be interesting:—Tuesday, December 20: Writing from Dictation, English Grammar and Composition, Geography, Arithmetic, and English History. On Wednesday: Latin, Geometry, French, and Algebra; and on Thursday: Greek, Chemistry, Mechanics, Botany, and Zoology. The time devoted to the examination was from 10 until 6 o'clock each day. The list of the successful candidates cannot be published until the meeting of the Court of Examiners, about the 15th proximo, when the report from the College of Preceptors will be received. It may save some inconvenience to our readers to let them know that the Hunterian Museum and Library of the College will be closed to visitors on Monday, the 26th inst.

MEMORIAL TO THE LATE DR. KIRKES.—On Saturday afternoon last a meeting was held in the College Hall of St. Bartholomew's Hospital. It was unanimously resolved that a public subscription be raised among the friends and former pupils of the late Dr. Kirkes to provide some fitting memorial of his excellence. It was agreed that this memorial be a medal, to be given yearly to the student who shall pass the best examination in the diagnosis and treatment of Medical cases in the wards of the Hospital. Dr. Andrew kindly consented to act as treasurer and to receive subscriptions, which may be sent to him at the College, St. Bartholomew's Hospital, or to Mr. Callender or Mr. Maberly, also at St. Bartholomew's Hospital.

SEASONABLE BENEVOLENCE.—The funds of the Royal Orthopædic Hospital have just been augmented by the receipt of another munificent donation of £200 from the Marquis of Westminster. Mrs. Penn has most opportunely presented £150 to University College Hospital through Mr. W. O. Lucas. The late Colonel Onslow Baker has bequeathed £100 to the Consumption Hospital, Brompton. The Birmingham Hospital will profit to the extent of nearly £5500 by the splendid musical festival of 1864.

UNIVERSITY EDUCATION IN WALES.—A meeting of the Welsh residents in London was held on Monday evening at the Literary Institute, Aldersgate-street, to promote the establishment of a University in the Principality. Mr. Propert occupied the chair; and with him were Mr. Hugh Owen (of the Poor-law Board) and several ministers of Welsh churches. Mr. Morgan Lloyd, of the Temple, stated that the movement to establish a University in Wales had been commenced now about a twelvemonth, and its importance had been so well recognised by the friends of high-class education that a few gentlemen had given in their names for sums which amounted to many thousands of pounds in the aggregate, and that without making any appeal to the people of Wales. It was desired to obtain subscriptions to the amount of £50,000.

UNIVERSITY OF DUBLIN.—At the winter commencements held on Wednesday, the 14th inst., in the Examination-hall of Trinity College, the following degrees and license in Medicine were conferred by the Right Hon. the Earl of Rosse, LL.D., Chancellor of the University:—*Baccalaurei in Medicina.*—Joshua Gulielmus Evans, Leonardus Archibaldus Manning, Henricus Josephus O'Brien, Gulielmus Henricus Witherby, Thomas Agmondesham Vesey, Georgius F. Harden, Jacobus Robertus White, Johannes Gul. York Fishbourne. *Doctores in Medicina.*—Gulielmus Henricus Witherby, Maxwell Simpson (*honoris causa*). *Licentiatus in Medicina.*—Walter G. Smith.

AT a meeting of the Reading Pathological Society, held in the Library of the Royal Berkshire Hospital, December 13, it was proposed by Mr. May—"That the members of the Society desire to express their sympathy with Mr. Davies in the late trial of Wright *v.* Davies, and their satisfaction with the verdict; and they regret that members of the members of the Medical Profession should be exposed to harrassing and vexatious prosecutions."—Seconded by Mr. Vines, and carried unanimously.

THE GAS EXPLOSION AT MANCHESTER.—VERDICT OF MANSLAUGHTER AGAINST A CHEMIST.—The inquest on Mr. Samuel Crowther, photographer, and his son, who were killed by an explosion while the former was manufacturing gas from manganese and chlorate of potass, on Saturday evening, took place on Tuesday. The evidence was to the effect that he was making the gas for Mr. Morgan, optician, when the explosion took place, the manganese he was using being obtained from Mr. Hughes, a chemist. Professor Roscoe had examined this manganese, and according to his evidence it contained 25 per cent. of pulverised coal or soot, which he said would render the mixture of the manganese with chlorate of potass as dangerous as gunpowder. The jury found a verdict of manslaughter against Mr. Hughes, and Mr. Herford, the Coroner, committed him for trial, but afterwards admitted him to bail.

DUST OF LEAD.—On Thursday week an inquest was held by Mr. Herford, city coroner, on the body of a young woman, 25 years old, named Bridget Connor. The deceased lived in Garratt-street, Oldham-road, and worked as a winder at the mill of Messrs. Armitage and Rigbys, bedtick manufacturers, Rodney-street. She had lately complained of pains in the stomach and head, and had lost her appetite. On the 29th ult., the deceased having been away from her employment a week, Medical assistance was obtained. Dr. Royle said that he observed a blue mark round the deceased woman's gums and teeth, indicating that lead in some form had been absorbed. He had made a post-mortem examination, and had found the brain slightly congested, and the windpipe, bronchial tubes, the inner lining of the stomach, and the first part of the small and large intestines in a state of irritation. The large intestines, which ought to have been three times the size of the small one, had been contracted to a much less size than it. All these appearances indicated poisoning by lead, which might have been taken in through the skin, or inhaled in the form of dust. Mr. William Armitage (of Messrs. Armitage and Rigbys) said that some time since the firm was working hanks of an orange-coloured dye, which could not be made fast unless it contained sugar of lead. As soon as they discovered its deleterious nature, they worked off all the hanks of that dye that they had, and discontinued the use of it. The winders often objected to having the windows open. Messrs. Armitage and Co.'s foreman corroborated the evidence of the last witness, and said there had been two or three other girls ill. The jury returned a verdict that the deceased died from lead poison.—*Manchester Guardian.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. J. Brown.—Our notices of deaths are strictly confined to those of members of the Medical Profession.

M.B. and M.R.C.S.E.—1. Passage allowance does not include outfit. 2. A man may marry as soon as he pleases after he is gazetted.

A. K., Aberdeen.—Mr. T. Watkin Williams, 13, Newhall-street, Birmingham.

J. C. T.—We know of no cases of intestinal concretions consequent on the frequent use of the effervescing citrate of magnesia.

An Old Member, Exeter.—Of the twenty-four members of the Council of the College of Surgeons who flourished in the year mentioned—viz., 1834, all are dead with the exception of Messrs. Lawrence and Swan.

A Constant Reader.—The removal by railway of a patient suffering from small-pox on the third day of the eruption, without any precaution for the protection of his fellow-passengers, is an outrage which should be punishable by law. The whole story, as told by our correspondent, shows either the crassest ignorance or the most reprehensible indifference to the safety of others on the part of the perpetrators.

The following advertisement, extracted from the *Stamford Mercury* of December 16, 1864, has been sent us. We have often had to remark on the fact that quacks constantly assume the titles of qualified Practitioners; the present case, however, of a qualified Practitioner taking and advertising himself by a title which has been always recognised as the special property of quacks is, we are happy to confess, a novelty:—

(A CARD.)

Mr. Fred. J. Mason, Surgeon, and Bone-setter, 123, High-street, Lincoln, will attend at the Rutland Arms Inn, Newark, every Market Day (Wednesday).

Travers v. Wilde.—Genius has its penalties as well as its privileges; and its necessarily more erratic and irregular walk must subject it to collisions unknown in the humdrum existence of commonplace mortals. Persons whose imagination is of great development, are, as is well known, liable to form friendships of a most enthusiastic and exaggerated cast; and if the parties be of opposite sex, it is perfectly possible that either of them may put too warm an interpretation on what really are outpourings of genuine, though indiscreet and unconventional friendship. To any one who knows the hysteric temperament, there is not only no evidence for, but plenty of it against, the probability of the plaintiff's story. We suppose that the legal profession in Dublin is able to answer for itself, and no one can more highly estimate its rhetorical ability than we do. But where is its discretion? How could any lawyers be induced to bring such a case into court? What could the plaintiff hope to get by it, save the gratification of injuring the defendant a little, and herself irrevocably? Instead of bringing him into court, she should have had change of air and soothing Medical treatment.

Cheap Champagne.—If it be thus brought home to the whole bibulous community—to the little gent (of poor Leech), the height of whose ambition is to stand on the roof of a "'bus" at the Derby, with a doll in his hat, a false nose on his face, and a sparkling tumbler in his hand—to the genuine "swell," on his well-appointed drag, who imagines he is sipping his Sillery at Goodwood—to the peer in his baronial hall—to the Amphitryon, even, of a *partie carree*, at the Trois Frères, that it is about a thousand to one that not one of them, no matter what price he is paying for it, is obtaining the wine he has ordered, is it not a wonder that it so long remains a standing delusion in society that champagne is to be held an indispensable element on any occasion of extra jollification or splendour? We do not tolerate such shams in eating. If where haunches of venison were to be considered "correct," haunches of mutton were placed on the table and called by their name, the substitute would be derided on all sides. Yet nine people out of ten are contented to drink a washy, frothy, flavourless liquid, and calling it by a high-sounding name, to which they are morally convinced it has no claim, delude themselves into the idea that it is all very "grand." If there should be as much honesty in what goes into our mouths as in what comes out of them, a glass of sparkling ale would in general be a more appropriate and a more genuine, as it would undoubtedly be a more wholesome beverage. No delusion, indeed, can be more absolute than that of "cheap champagne." The price alone must always be one test of that wine, for the genuine article cannot be produced except at considerable cost. The district producing it is comparatively very small for the demand. The vineyards are consequently most expensive, and they require very high cultivation. Moreover, great care is requisite to transform the crop into first-rate wine. Even

on the spot, it cannot be sold for less than double the amount of the average price for it here. Hence the extensive frauds in its imitation. But the most curious part of the delusion entertained with regard to is is, that those who usually insist upon champagne, out of ostentation or sensuality, are utterly ignorant of its real and respective value. The briskest and most sparkling of these wines, the supreme favourites, are well known to chemists to be "the most defective in vinous quality, and the small portion of alcohol which they contain escapes from the froth as it rises to the surface, carrying with it the aroma, and leaving the liquid that remains in the glass nearly vapid." The description is most true, and, but for the disguising powers of ice, the bubble might have burst long ago. The real thing is unimpeachable. A glass of still or creaming champagne from the vineyards of Verzenay or Mailli, in the Sillery district, or of the scarcer and still more precious "red" champagne of Clos St. Thierry, is the nectar of the gods, and the most delicious as well as the most wholesome of wines. But the acetous trash that is usually palmed off as its substitute must be as noxious as it is nasty. It is merely "swagger" that prolongs its existence. But if little Tom Tomkins, when at some *bal masque* he orders champagne at a guinea a bottle, were aware that it was purveyed by Mr. Abrahams for precisely one shilling, perhaps he might feel somewhat ashamed of his bargain.—*Saunders's Dublin News Letter*, Dec. 16.

MRS. WALKER AND FAMILY, OF CRICK, NEAR RUGBY.

The following subscriptions have been received at the office of the *Medical Times and Gazette* on behalf of the above:—H. F. I., 10s.; Dr. Henderson, Ramsgate, 10s.

DIPHTHERIA MANIFESTING ITSELF BY DISORDERED INNERVATION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you kindly permit me to inquire, through the medium of your journal, whether any of your readers have met with an instance in which the poison of diphtheria has manifested itself by disordered innervation unpreceded and unaccompanied by the characteristic exudative inflammation of the throat or nostrils? I may state briefly the grounds on which I have been led to surmise (for I cannot employ a stronger term) that such a variety of the disease occurs in exceptional cases.

About two months ago I was asked to see a boy aged 8, affected with partial paralysis of both extremities, amaurosis, and dysphagia. Progression was very difficult, and he required to be supported when attempting it. He could grasp but feebly with either hand; could read but imperfectly even large print; and a portion of the fluids he took was frequently ejected through the nostrils. The voice was snuffling. On examining the throat I found the velum preternaturally dependent, especially at the left side, but failed, on very careful scrutiny, to detect enlargement, inflammation, or membranous deposit anywhere. By the internal use of iron and nux vomica with wine and a generous diet he is now completely restored to health. About a fortnight before I first saw him he had returned home from visiting a family at a distance, two of the members of which had been attacked with diphtheria, then prevalent in that neighbourhood, during his stay. My patient, I was informed, had made some complaint at the same time of soreness of the throat, but, with the exception of a little redness, demanding and receiving no attention, nothing was discovered amiss with it.

More recently I was consulted by an advanced Medical student about his sister, a girl of ten, whose symptoms resembled pretty closely those in the case just detailed, except that there was no affection of vision, and the dysphagia appears to have been less severe. Two or three of the inmates of the house in which the girl resides suffered from diphtheria in its common form just before her illness, but in her the throat has never been in the slightest degree affected. The same plan of treatment was adopted as that employed in the boy's case, and with an equally successful result.

It is unnecessary to point out that the fact of which I have thus got an inkling, if confirmed by more extended observation, will possess very considerable diagnostic value. I am, &c.

Keith, December 14. R. TURNER, M.D.

CONSANGUINEOUS MARRIAGES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I believe some time back a commission was appointed by the French Academy to consider the effects of consanguineous marriages, and that circulars were sent to the Prefects in order to obtain statistics on the subject. Might I ask, through the medium of your "Notes and Queries," how such marriages are to be regarded, and whether the researches of the Academy confirm the common opinion that they are prejudicial, or the reverse? I am, &c.

December 18. X.

P.S.—I enclose my card.

SO-CALLED CRIMINAL ASSAULTS UNDER CHLOROFORM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—A troublesome old lady presented herself the other day at the Lariboisière, in Paris, with an affection of her eyes, which she expected to have cured. "I cannot read without glasses," was her complaint, "and I ought to be able to do so." "And your age?" inquired the Surgeon. "Well, only 95 and 2 days," at which there was some tittering amongst the *externes*. "Ye may laugh, but I knew a better Surgeon than any of ye, ye (Carabins) jackanapes—one I often kissed, and who loved me. I wish he was here, and he would cure me." "Oh, oh! et qui est celui la?" "Eh! bien," said the old lady, "M. Dupuytren! Well, he loved me, and we lived and were happy and lovely in one another's arms." The rest of the story is to this import, that the charm of the word Dupuytren made the students give the heteronomous old lady a grand banquet and a gold ring! The story is given this month in a French newspaper, and I think has some bearing at long range on an unhappy trial in Dublin and another in London—that of Stone *v.* Appleton. But more notably will it answer as a peg on which to hang a few thoughts as to the mischief which has of late arisen from the facility, in popular books, which chloroform affords doubtful ladies and half-informed barristers to get up fancies of probably perfectly innocent Medical men, happy and lovely in their embraces—so long, at least, as damages can be recovered; and all from a total ignorance of the peculiarities of chloroform, for chloroform was the main point in these two trials.

There are three well-attested cases of dentists in America who were tried for rape, and two found guilty, all in the early days of chloroform: the allegation having been that the lady in each case believed and swore she had been assaulted in a criminal way while under chloroform for tooth extraction. One dentist escaped, for a Surgeon swore he knew of a similar case of a lady equally positive, but her husband was all the time in the next room, and the assault was impossible. The curious thing about all the cases was this: that in each instance the lady was menstruating at the time, and suffering from dysmenorrhœa. I believe we shall have a great many of these cases if the idea is encouraged as it is in "Sensation novels" and some Medical journals.

Sackville-street, December 19. I am, &c. CHARLES KIDD, M.D.

COMMUNICATIONS have been received from—

THE DUBLIN INTERNATIONAL EXHIBITION; Mr. JAMES BRUCE; APOTHECARIES' HALL; Dr. R. TURNER; Mr. STEDMAN; X.; Dr. P. W. LATHAM; Dr. CLAPTON; AN OBSERVER; Dr. M. CLAUDIUS; Dr. R. PATON; M.D.; WESTERN MEDICAL AND SURGICAL SOCIETY; M. A. B.; Dr. J. ANDREW; M.B. AND M.R.C.S.; ROYAL INSTITUTION; Dr. F. J. BROWN; Dr. MERRIMAN; HARVEIAN SOCIETY OF LONDON; ETHNOLOGICAL SOCIETY OF LONDON; Dr. T. DOWNIE; Dr. J. G. MACVICAR; Mr. F. WORKMAN; Dr. J. J. PHILLIPS; J. C. T.; CONSTANT READER; Dr. A. KEITH; PHARMACEUTICAL SOCIETY OF GREAT BRITAIN; NE VILE FANO; Dr. H. OSBORN.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 17, 1864.

BIRTHS.

Births of Boys, 951; Girls, 1001; Total, 1952.
Average of 10 corresponding weeks, 1854-63, 1806·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	736	713	1449
Average of the ten years 1854-63	666·7	636·8	1303·5
Average corrected to increased population..	..	..	1434
Deaths of people above 90	..	1	1

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	..	10	11	2	8	8	5
North ..	618,210	4	11	11	3	10	28	..
Central ..	378,058	1	4	15	1	6	7	2
East ..	571,158	1	6	17	3	16	18	3
South ..	773,175	2	16	29	2	10	15	3
Total ..	2,803,989	8	47	83	11	50	76	13

APPOINTMENTS FOR THE WEEK.

December 24. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

26. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

27. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. Mr. John Evans, F.R.S., "On Flint Implements from Salisbury-hill, near Bath." M. Khanikof, "Contributions to the Natural History of the Iranians." Mr. W. Martin Wood, "The Hairy Man of Jesso."

ROYAL INSTITUTION, 3 p.m. Prof. Frankland, "On the Chemistry of a Coal"—(Juvenile Lectures).

28. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

29. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Prof. Frankland, "On the Chemistry of a Coal"—(Juvenile Lectures).

30. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

49, LEICESTER-SQUARE, LONDON, W.C.

Mr. C. G. GUMPEL,

ANATOMICAL AND ORTHOPÆDIC MECHANIST,

FOR THREE YEARS PRINCIPAL ASSISTANT AT THE ORTHOPÆDIC INSTITUTE OF
Dr. OTTO LANGGAARD,
FOR EIGHT AND A-HALF YEARS MANAGING ASSISTANT AND DESIGNER TO
Mr. HEATHER BIGG,
Inventor and Designer of some of the most conspicuous ANATOMICAL and ORTHOPÆDIC APPLIANCES,
Is enabled, through his long experience in the above capacity, as well as a thorough
PRACTICAL AND THEORETICAL EDUCATION IN APPLIED MECHANICS,
to carry out the wishes of Medical Men who may favour him with their orders.

Exhibition Prize for Ingenuity and Adaptation.

49, LEICESTER-SQUARE, LONDON, W.C.

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WATER BEDS AND CUSHIONS,
(obtained the only Prize Medal, 1862).

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In sending an order the width of the Bedstead should be stated.

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JOSEPH F. PRATT,

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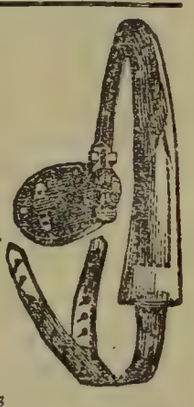
BY APPOINTMENT, TO THE ARMY MEDICAL BOARD,
420, OXFORD-STREET, W.
PRIZE MEDAL, 1862.
" For excellence of Manufacture of Surgical Instruments and Mechanical Appliances."



Including—Case of Instruments for a Surgeon in H.M. Army—Instruments used by Baker Brown, Esq., in his Operations of Ovariotomy, Vesico-Vaginal Fistula, etc.—Doctor Coghlan's Uterine Knife and Dilator, with Lead for the Tubes—Spinal Supports of exceeding light weight, and Crutches or the Paralysed, recommended by Dr. Brown-Séquard—New Army Truss—Improved Truss for Scrotal Hernia, with Water Pad—Patent Auricle for Deafness—Artificial Feet to make a Woman taller—Elastic Stockings—Abdominal Belt—and Artificial Leg of extreme lightness and durability.

AGENT TO M. A. P. BOISSONNEAU FOR ARTIFICIAL EYES.

ORIGINAL LECTURES.

COURSE OF
LECTURES
ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D., F.R.C.P.,
Professor in University College, and Assistant-Physician to University College Hospital.

Lecture IX.

ON THE CLINICAL SIGNIFICANCE AND PATHOLOGICAL IMPORTANCE OF THE PRESENCE IN THE URINE OF INOSITE—CREATIN AND CREATININ—CHOLESTERIN—CYSTIN, (CALCULI)—XANTHIN, (CALCULI)—LEUCIN—AND TYROSIN.

(Continued from page 670.)

Tyrosin—Its Clinical Significance.

Chemistry.

Tyrosin belongs to the same class of substances as leucin, and like it may be artificially obtained from almost any protein matter. Its composition is,—

Carbon	59·67
Oxygen	26·52
Nitrogen	7·73
Hydrogen	6·08
	100·00

Tyrosin differs from leucin in being crystallisable. When pure it crystallises in fine white glistening stellate groups of small prisms, as represented in Fig. 22.

Fig. 22.

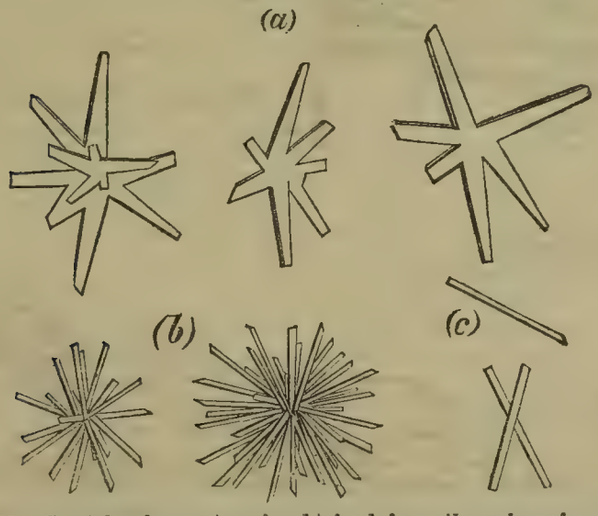


Fig. 22.—Crystals of pure tyrosin obtained from the urine of a case of chronic atrophy of the liver. (*a*) Large crystals; (*b*) the common form of stellate groups of needle-shaped crystals; (*c*) a few separate prisms (600 diam).

Tyrosin is odourless and tasteless, but when burned gives off a disagreeable smelling vapour. It is soluble in acids, alkalies, and boiling water; insoluble in cold water, ether, and alcohol.

The easiest applied chemical test for it is that proposed by Scherer—namely, to moisten a few crystals with strong nitric acid on a spatula, and slowly evaporate to dryness. The residue, which is of a fine rich yellow colour, when moistened with hydrochloric acid becomes red. If the mixture be again evaporated to dryness, it yields a blackish residue. Reactions which are thought to be quite characteristic of tyrosin.

As met with in urine, it is usually so mixed with leucin and other matters, that before applying the test it is necessary to purify it. This may be done in the following manner:—

Precipitate all the colouring matter by means of a solution of basic acetate of lead; filter, and then free the liquid from the excess of lead by means of a current of sulphuretted hydrogen; again filter, and evaporate the clear liquid to nearly dryness, when the tyrosin will crystallise in the white stellate groups already described.

In testing for impure tyrosin, add to the suspected solution a little nitrate of the protoxide of mercury (nearly neutral), which will throw down a red precipitate, and turn the supernatant liquid rose coloured if tyrosin be present (Hofmann).

Another means by which tyrosin may be recognised is that proposed by Frerichs. The suspected substance is put into a watch-glass along with sulphuric acid, and after standing half an hour the mixture is diluted with water. It is next boiled and neutralised with carbonate of soda, filtered, and to the clear filtrate a few drops of perchloride of iron devoid of acid is added, when the presence of tyrosin is recognised by the formation of a dark purple colour.

It seldom happens that the tyrosin is present in human urine in sufficient quantity to admit of the proper application of these tests, so that we are forced, in the majority of cases, to confine ourselves to its microscopic appearances, which, fortunately for us, are amply sufficient for our purpose. In doubtful cases it is well to concentrate the urine, as recommended in the case of leucin.

Physiology.

Tyrosin is met with in, or rather may be obtained from, almost all the organs in which leucin is to be found. It can scarcely, however, be said to be a normal constituent of the human frame, but rather appears to be one of the artificial products of the decomposition of highly nitrogenised matters. It may be artificially obtained in considerable quantities by acting upon horn, hair, or feathers, with sulphuric acid.

Pathology.

As a pathological product tyrosin is occasionally met with in the kidneys, in the urine, and in the liver in a free state. In acute yellow atrophy it may be almost said to be constantly present in all of these situations, for Staedeler, Frerichs, Neukomm, Scherer, myself, and several others have met with well-formed crystals of tyrosin in the tissue of the atrophied liver, of the kidneys, and in the urine, without subjecting either the one or the other to any chemical manipulation, but merely examining them with the microscope.

The crystals in these cases do not always assume the shape represented at Fig. 22, but occasionally form very thickly-set stellate groups of fine needles, or spiculated balls, not unlike a rolled-up hedgehog with the bristles sticking out in all directions, as represented in the accompanying woodcut.

Fig. 23.

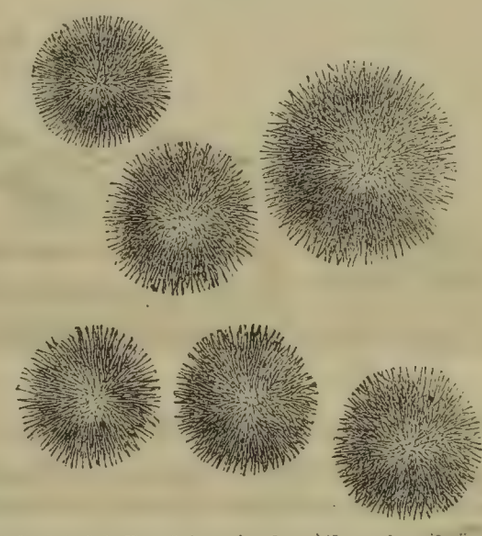


Fig. 23.—Spiculated balls of tyrosin, from the urine of a case of acute atrophy of the liver. When these were re-dissolved, purified, and re-crystallised, they assumed the form of those in Fig. 22 (mag. 600 diam).

The crystals found in the urine are usually of a deep yellow colour, in consequence of their having taken up a quantity of the bile pigment. Tyrosin has also been detected in the urine in cases of typhus complicated with jaundice, and in severe cases of small-pox, as well as in at least one example of chronic hepatic atrophy supervening on obstructed gall-duct. Very recently Murchison and myself found free crystals of tyrosin in the tissue of the kidneys of a private soldier, who died comatose, and whose liver was found to be much below the ordinary weight.

The last question to be considered is: "Where does the tyrosin met with in disease come from?" The results of my experiments on animals, to which jaundice had been artificially given, and which have been elsewhere published, led me to the belief that tyrosin and leucin stand in the same

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—Ed. *Med. Times and Gaz.*

relation to each other in disease as the two bile acids, glycocholic and taurocholic, do in health. Glycocholic acid is crystallisable, taurocholic is not.

The urine of some of the dogs to which I gave artificial jaundice by the subcutaneous injection of bile contained both leucin and tyrosin, and even in one of these cases crystals of tyrosin spontaneously formed in the bile taken from the animal's gall-bladder immediately after death, and merely allowed slowly to evaporate. In another case, again, free crystals of tyrosin were encountered in the tissue of the liver itself, all of which facts led me to the conclusion that tyrosin and leucin are the products either of the arrested or of the retrograde metamorphosis of glycocholic and taurocholic acids.

Be the theory, however, what it may, the important fact for us clinical Physicians to bear in mind is, that the presence of tyrosin in the urine of any of our patients is an almost certain sign of a rapidly approaching fatal termination.

ORIGINAL COMMUNICATIONS.

CASES OF SOFTENING OF THE BRAIN AND SPINAL CORD.

By JOHN W. OGLE, M.D., F.R.C.P.,
Assistant-Physician to, and Lecturer on Medical Pathology at, St. George's Hospital.

(Continued from page 675.)

Case 52.—James M., aged 19, admitted May 22, 1837, into Fort Pitt with symptoms of phthisis. He had been previously healthy, but a few months before admission became affected by severe cough and dyspnœa; had had hæmoptysis. Fluid accumulated in his abdomen, and much dyspnœa was occasioned, and eight pints were let out from the chest by tapping. Later on the secretion of the urine was considerably arrested. Remaining quite sensible to the last (no delirium, etc.), he died August 22.

Post-mortem Examination.—Thorax: Three pints of serum existed in one pleural cavity. Vomicæ found in the lungs and pleural adhesions. Bronchial glands enlarged, and of cheesy consistence. Some of them were softening, and one of them contained a *cavity communicating by an ulcerated opening with a bronchial tube.* Abdomen: Cavity contained seven pints of serum. Recent and old deposits of lymph in the peritoneal cavity and between the viscera. Kidneys large, dense, and inflamed. Scrofulous deposit in lumbar glands. Cranium: Calvaria very thin. Inner surface of each parietal bone of a very dark hue, and the corresponding outer surface very vascular. Pia mater pale. Substance of brain much softer than natural. Fornix of pultaceous consistency, and septum lucidum broken down, part of its substance floating in the fluid of the ventricles, which was very considerable in quantity. Pineal gland very softened. Blood vessels at the base of the brain very large.

P.S.—Also one of Dr. Davy's cases.

Case 53.—William S., aged 35, admitted into Fort Clarence May 21, 1837. His health had been generally good, and about one year before admission his memory had begun to fail, and his manner to become singular. Soon after that he had an attack of influenza followed by much debility. When admitted he looked very ill, his feet were œdematous, pulse feeble and quick, and he had unmistakeable physical signs of phthisis. His mind was quite fatuous. He remained in the same state until July 2, when he had a series of convulsive fits, which continued throughout the day with intervals of half an hour, during which he was unconscious of passing wants. On the 3rd the fits had ceased, but he remained very exhausted, occasionally speaking very feebly, and lingered until the 12th, when he died.

Post-mortem Examination.—The limbs were flexible, and it appeared from the accounts of others that they had never been rigid. Thorax: Increased fluid in pericardium. Heart natural. Many scrofulous deposits in lungs, which were much condensed in parts; ulceration of the lining of the larynx existed near the vocal cords. Abdomen: Organs natural. Cranium: Dura mater in many places cribriform. Arachnoïd membrane generally opaque, and at the upper part of the cerebrum thickened; pia mater tough and strong, with much fluid beneath it. About one and a-half ounces of fluid existed in the lateral ventricles. There was much softening of the fornix and septum lucidum and of the surfaces of the corpora striata and optic thalami; also of the corpora quadrugemina, which were in places quite pultaceous. The left vertebral artery was larger than the right one (of about the size of the basilar); the latter, the right, was rather contracted at its commencement.

P.S.—Also one of Dr. Davy's cases.

Case 54.—John M'D., aged 31, admitted June 7, 1838, having been in India and nine times in Hospital with fever, and having had bubo, rheumatism, acute, followed by chronic hepatitis, and again acute hepatitis on his way home. When admitted the abdomen was enlarged, legs swelled, urine scanty. He was tapped three times, each time about six pints of fluid being drawn from the abdomen. No albumen in the urine. Diarrhœa came on, and an ulcer of the leg. He sank and died October 7.

Post-mortem Examination.—Thorax: Increased fluid in pericardium, and about twelve ounces in one pleural sac. Pleural adhesions large and œdematous. Heart natural; lining blood-stained. Abdomen: In addition to much serum in the abdomen, there were flakes of lymph and evidences of old peritonitis. Spleen large and firm. Liver congested. Cranium: Considerable fluid beneath arachnoïd, but little in the ventricles. Brain generally softened. Fornix and septum diffluent and pultaceous, and in one part quite disorganised and shreddy. Walls of all ventricles softened. Left one larger than the right.

P.S.—Also one of Dr. Davy's cases.

Case 55.—Alexander U., aged 32, admitted into Fort Pitt March 9, 1839, (sent from the Mediterranean for hæmoptysis,) with mania, chiefly wandering on religious subjects, suddenly commencing after that a comrade had suddenly died. The impulse of the heart was unduly diffused, and hæmoptysis again recurred after he had been praying in great excitement. His general state improved for a time, but his mind became fatuous, and he was constantly shouting and excited; his nights were also sleepless, and his habits filthy, his appetite being at the same time very great.

On the 20th convulsions came on, and he passed into a state of unconsciousness, with stertorous breathing, and died the same day.

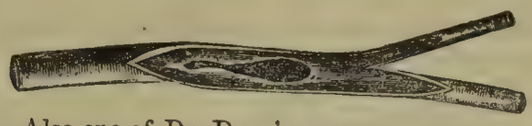
Post-mortem Examination.—Cranium: Bones of skull very vascular; arachnoïd along the superior longitudinal sinuses opaque, with some recent fibrine beneath it. Much fluid in the sub-arachnoïd tissues generally. Brain generally softened, and especially the fornix, which was ruptured, as also the walls of the ventricles, the optic thalami and Pineal gland. Blood vessels of brain natural. Thorax: Scrofulous deposits and vomicæ in the lungs; ulceration of epiglottis. Heart natural. Abdomen: Ulceration of ileum found.

Case 56.—William M., aged 26, admitted into Fort Pitt Hospital June 12, 1835, with sea scurvy, having been sent home from the Cape of Good Hope for chronic rheumatism; said to have been connected with syphilis. Constitution much impaired; left elbow-joint stiffened. Had dysentery during the voyage. He rapidly improved; was discharged, and re-admitted July 7 with cough, hoarseness, prostration of strength, and physical symptoms of catarrh, also with "weakness" of the *left* arm and leg, and a sensation of pricking down the whole of the left side of the body. The paralytic symptoms increased, and pain in the right side of the head came on, which was for a time only relieved by venæsection. Headache and paralysis became more confirmed, and bilious vomiting came on. The tongue was protruded to the *left* side, and great "dulness of sensation" of the *left* side of the body was experienced.

On the 14th he was very inclined to coma, but could answer questions. *The retinæ were very sensitive to light.* The pulse became irregular (68 per minute), and the pupils sluggish, and the fæces passed involuntarily. Then strabismus came on, and afterwards the pupils became contracted and fixed. For a time he was more sensible, but soon became quite comatose, and so died July 17.

Post-mortem Examination.—Thorax: Pleural adhesions. Vomicæ in lungs. Slight ulceration of larynx. Abdomen: Ulceration of ileum, cæcum, and colon. Appendix cæci closed by a putty-like substance. Cranium: Granular, rounded tubercles, white and firm, found attached to the inner surface of dura mater and in the pia mater, thickening the membranes corresponding to the middle of the right parietal bone; these tubercles more numerous between the convolutions. Beneath these parts the surface of the brain, and the superficial layers of the medullary parts, were disorganised by softening; and in one part was a minute extravasation of blood into the brain-

tissue. But a slight amount of fluid existed in the ventricles or beneath the arachnoïd. The blood vessels were natural, except that a small fibrinous mass was attached by a delicate peduncle to the inner surface of the basilar artery, as may be seen in the accompanying woodcut :—



P.S.—Also one of Dr. Davy's cases.

Case 57.—John L., aged 44, admitted into Fort Pitt April 23, 1840, having been thirteen years in India, in a very exhausted state of body and mind. In July previous had had ague, followed by swelling of the legs and general pain. After admission he had attacks of raving, chiefly at night. Pulse was quick, 108, soft, and tremulous. Countenance vacant. Could only obtain sleep by means of opiates. Bowels at first constipated, afterwards relaxed and passed unconsciously. Low muttering delirium preceded death, which occurred May 1.

Post-mortem Examination.—One testicle occupied by deposit of lymph. Cartilages of both patellæ partially softened, shreddy, and absorbed. Thorax: Lungs and bronchial glands contained some scrofulous deposit. Heart small. Ductus arteriosus pervious as far as the pulmonary artery, where it was blocked up by the inner membrane of that vessel. Abdomen: Mesenteric glands occupied by scrofulous deposit. Cranium: Calvaria thick and very heavy; inner surfaces very irregular and strongly marked by vessels; new bony deposit on the inner surface of the frontal bone. Much fluid beneath arachnoïd and in lateral ventricles. Cortical substance of brain unusually light in colour, and substance of brain generally softened.

P.S.—Also one of Dr. Davy's cases.

Case 58.—Patrick H., aged 33, admitted into Fort Pitt, 1840. He was intemperate, and having previously had good health, suddenly, when at dinner on February 19, fell down and lost the use of the *left* side. Two days afterwards he had great pain in the right thigh. When admitted he had partially recovered the use of the left leg, but the arm remained quite powerless. He had occasional headache, and on July 18 he lost power of speech, and his swallowing became difficult. The latter improved afterwards until the 22nd, when spasm of the affected side and stertorous breathing came on, the pulse being 50 per minute. He continued insensible until July 23, when he died.

Post-mortem Examination.—Much fluid beneath arachnoïd and in ventricles. The anterior lobe and part of the middle lobe of the *left* cerebral hemisphere was much softened superficially, portions peeling off with the removal of the pia mater; this state was not entirely confined to the grey matter. The greater part of the *right* corpus striatum was converted into an irregular cavity with ragged walls, containing an opaque reddish fluid; the adjoining brain substance not being softened. The left internal carotid, immediately after entering the cranium, was dilated, and its inner surface roughened. The *anterior branches, just before they communicated with the others, were plugged up with fibrine.* The fifth ventricle was unusually large, and the septum lucidum very easily divided into two laminæ. Substance of brain generally firm. Thorax: Lower part of lungs hepatised.

P.S.—Also one of Dr. Davy's cases.

Case 59.—Thomas M., aged 32, admitted into Fort Pitt June 21, 1840, (having been invalided with sore eyes from India), with symptoms of phthisis. He had been operated on for fistula. He became delirious shortly before death, which occurred August 14.

Post-mortem Examination.—Cranium: Bones very thickened; increased fluid in sub-arachnoïd tissues, and very much in ventricles; substance of brain generally soft, especially the fornix, which was almost pultaceous, as also the walls of the ventricles; oval soft masses (size of orange pips), and also some calcareous matter in choroïd plexuses. Thorax: Vomicæ and scrofulous masses in lungs. Abdomen: Ulceration of ileum and colon; liver large, soft, and friable.

Case 60.—John K., aged 20, who had been subject to catarrh and fever, was admitted into Fort Pitt July 27, 1840, with violent headache and general weakness. He daily became worse, and on August 1 the pupils were dilated, and he was semi-comatose, with much jactitation and perpetual moaning; the evacuations also passed involuntarily. On the 7th the limbs on the right side were manifestly paralysed, and subsequently the *left* eye became almost closed, owing to dropping of the upper lid, its pupil being much more dilated than that of its fellow (being twice its natural size). The respiration became hurried, the lungs being full of mucous *râles*. Though the heat of the surface varied, it was never very great. He was blistered freely. He died August 9.

Post-mortem Examination.—Cranium: Arachnoïd surface less moist than usual. Lateral ventricles distended, containing one ounce and a-half of fluid, and much fluid at the base of the brain. Much recent fibrine beneath arachnoïd at base of brain. The fornix very softened, and anterior part of *left* corpus striatum quite pultaceous and injected. Thorax: Pleural adhesions, and a quantity of curd-like material between diaphragm and one lung, which was partly hepatised. Bronchial membrane very vascular. Other organs natural.

P.S.—Also one of Dr. Davy's cases.

SPHACELATED FEMORAL HERNIA FOLLOWED BY ARTIFICIAL ANUS —NATURAL CURE.

By S. J. STRATFORD, M.R.C.S. Eng.

Mr. William M., born at Morton Pound, Cornwall, England, aged 63 years, has been afflicted with inguinal hernia of the right side for upwards of ten years. It even descends into the scrotum, but is always easily reduced. Seven years since he observed a little lump appear on the right groin, in the situation of femoral hernia. It came suddenly, and was attended with a feeling of faintness and sickness; this by degrees subsided, but the swelling never entirely disappeared. After remaining quiet for a time, the part would suddenly increase in size, grow painful, at which time it was attended with constipation, pain in the bowels, and vomiting. This condition generally lasted for a few days, when the bowels would again operate, and the swelling diminish in size, and cease to be painful. He always believed that the constipated condition of the bowels was caused by the state of the tumour. The irritable state of the tumour generally happened several times during the course of the year, at which times it was generally preceded by a frequent desire to go to stool, tenesmus, and irritation of the lower bowel; then would follow the pain, sickness, and constipation. The inguinal hernia was never strangulated, would always return with facility, and never gave pain. For the last few years the patient had resided in the back woods of New Zealand, enjoying good health, but working very hard with heavy lifts and great exertion. Was obliged to leave his farm from the fear of Maorie marauders, who had killed in cold blood several of his unoffending neighbours. He came to Auckland in the month of July, 1863. In February last (1864) he was attacked with vomiting and purging, cases of which were very prevalent at this time. This complaint continued for several days; for it he took some composing pills, which had the effect of stopping the bowel complaint. The vomiting still continued with great pain in the bowels. After the purging stopped, pain commenced in the groin, the small tumour was enlarged, and his wife says became red and inflammed.

I was sent for on the third day, and immediately recognised the symptoms of strangulated hernia. The inguinal hernia was down; this I easily reduced, still the symptoms continued. The swelling, pain, and redness of the tumour in the femoral region pointed to the seat of the disease, which, however, at first sight, appeared more like an inflamed gland than a strangulated hernia. I now felt convinced that the man had a double hernia of the right side, and at the present time was labouring under strangulated femoral hernia. The swelling, redness, and feeling of fluctuation in the little tumour, which was about the size of a marble, made me believe that changes of vital importance had already taken place in the hernial sac, so that I feared it was hopeless to expect to reduce the incarcerated intestine. An attempt was made, but it gave such pain that it was necessary immediately to desist, particularly as the history showed it had been irreducible for a very long period, the old man distinctly saying that it "never entirely went away."

From the urgent nature of the symptoms, I called a consultation, when it was determined to lay open the tumour and relieve the strangulation, if the hernia could not be reduced. With the assistance of Dr. McKinnon, 57th Regiment, and Dr. Wright, the tumour was laid open. The integuments and fascia having been cut through, the hernial sac was exposed, showing a dark plum-coloured substance within. On the division of the hernial sac, a thin bloody serum escaped, and it was plainly shown that a piece of small intestine was adhe-

rent—vastly congested, amounting almost to a state of sphacelation. A cut was made into the neck of the hernial sac, so large that the finger could be introduced into the abdomen. All stricture was now removed from the intestine, the parts were brought together, and we hoped that the passage of the bowel might be established—not so—for notwithstanding the use of enemata, calomel and opium, and castor-oil, the bowels continued obstinate, although the vomiting and pain had ceased soon after the operation. About four days after the operation the intestine gave way at the groin, and a free discharge of feculent matter occurred, which greatly relieved the patient. This discharge, often thin and watery, continued for months; but the wound during this time gradually diminished in size, and became so small that it could be covered by the finger; indeed, at the present time you may see the feculent matter pressed through it, looking like the evacuation of an infant.

To-day (August 27, 1864) the patient said that he had eaten an apple, swallowed the pips, which after a time presented itself at the opening, and appeared arrested in the part, until an effort from behind forced it out with some violence.

A few days since the man informed me he had an inclination to go to stool by the natural passage. I advised him to use the enema. He did do so, and found considerable stool to pass, and now he declares that he has two stools daily without the use of the glyster. The wound in the groin is getting less daily, and I have no doubt will completely heal up, and the natural passage of the bowels be re-established. The man is in good health, takes long walks, and is very anxious to go to work.

The unexpected result of this case calls to my mind circumstances which happened to me when in the backwoods of Canada some twenty-five years since. An old man, of some 50 years of age, vaulted upon a horse to ride a short distance. In the act of mounting he felt a pain in the right groin, and observed a small tumour; was seized with pain in the bowels and vomiting; was put to bed; had some warm drink given him, and hot fomentations applied to the bowels. These means did not relieve him; he grew worse, and I was sent for during the night. When I arrived I found that he was labouring under the symptoms of acute strangulated hernia. The tumour in the groin was about the size of a marble; was very painful to the touch, and he declared it came suddenly. He had observed it occasionally some long time ago, but recently it had not troubled him. The taxis was tried, but the tumour was almost too small to handle. Bleeding and the hot bath were tried. (Chloroform was not known in those parts at that time.) The symptoms speedily became so urgent that I resolved to operate. I laid open the integuments, divided the fascia, and opened the hernial sac. I found a portion of small intestine caught in the hernial embrace, and evidently strangulated, by its dark colour. It was plainly only a section of the intestine, one side of it incarcerated in the hernial sac. I now divided the stricture, and placing my finger upon the bowel I easily pushed it into the abdomen, when the poor man expressed a desire to evacuate the bowels, which acted freely. The wound soon healed, and the man got rapidly well.

Upon reflection, I am led to believe that this very remarkable case of sphacelated femoral hernia above mentioned was of a similar character to the one just recorded. A section of the bowel only had come down into the sac and become adherent, and that the stools passed through the intestine, while this section was adherent to the hernial sac. Whenever irritation of the bowels happened, which seemed frequently to occur, more or less inflammation of the part resulted, but quickly subsided again. The last attack was far more violent than any of the preceding, hence the inflammation of the intestine was more intense, and caused all the symptoms of strangulation, and made it necessary to relieve the stricture. This being accomplished, the symptoms of incarceration subsided, but the vitality of the intestine was too far gone to permit it to regain its tone; hence mortification ensued, and an artificial anus was formed. As the irritation and swelling of the parts subsided the old man began to regain tone. His health was considerably re-established, the wound commenced healing, and the feculent matter began to find its way into the lower portion of the bowel past the wound, by the section of intestine not included in the hernia.

The more the wound healed the more free was the passage by the bowel, until now scarcely any matter passes by the wound, and the artificial anus is almost closed, and without doubt will be perfectly cured.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK.

CASE OF ANEURISM.—ANEURISM OF ASCENDING AORTA—PRESSURE AND ENCROACHMENT UPON LARYNX—HOARSENESS—PAROXYSMAL COUGH AND DYSPNŒA—DYSPHAGIA—DEATH FROM SUFFOCATION.

(Under the care of Dr. WARD.)

Dr. Ward made the following remarks on this case. There was, he said, no difficulty about the diagnosis of aneurism. Physical signs, as dulness on percussion above the base of the heart and towards the right side of the chest, prominence of the right upper costal cartilages, undue impulse and bruit, pointed unmistakably to the affection. Functional signs also, as hoarseness, paroxysmal cough, stridulous inspiration, occasional dyspnœa were not less striking, and in the absence of confirmatory physical signs and of indications of special laryngeal or chest affection, would unquestionably have ensured the correct diagnosis. Indeed, when the man presented himself for the first time, his peculiar cough and breathing attracted attention, and led to the anticipation of his malady. To the above symptoms were added difference in the pulses of opposite sides, contraction, although not constant, of the left pupil, and ultimately dysphagia. In the majority of cases of thoracic aneurism there is no direct pressure upon the air-tube, and the affection of voice and breathing is due entirely to irritation of one or other recurrent laryngeal nerve. In the case before us, however, the hoarseness, stridulous inspiration, and dyspnœa were caused principally by direct and progressively increasing pressure and encroachment upon the trachea. But from the fact that the symptoms in question were paroxysmally intensified, Dr. Ward inclined to think that they were partly dependent upon irritation of the recurrent laryngeal. The dilatation, affecting as it did especially the lower side of the arch, must have caused some pressure of the left nerve. The position in which the patient was most comfortable—namely, sitting up with the head bent somewhat forward—is characteristic; it is that in which there would be the least amount of pressure from the tumour, and the recurrent nerve would be relaxed. Pain was a marked symptom in the above case—constant, localised over the site of tumour, and due to pressure upon, and ulceration of, cartilages, and irritation of contiguous nerves; paroxysmal pain in the more advanced stage of the case, of the nature of angina pectoris, and due to irritation of the branches of the anterior cardiac plexus. One can scarcely account for the smallness of the left pulse, seeing that the post-mortem examination did not reveal any pressure of the sac upon the left carotid and subclavian arteries. The pouches of the sac may have had some influence in modifying the force and course of the blood-stream.

The contraction of one pupil was due, as Dr. Gairdner has insisted upon, to pressure on the sympathetic nerve, and not to pressure on the large vessels of the corresponding side. In a case reported in this journal, September 27, 1862, there was occlusion of the arteria innominata and left carotid artery, but no affection of the pupil was noticed. The difficulty of swallowing did not occur until towards the close of the case, and was evidently due to direct pressure. Death must inevitably have occurred soon from rupture of sac either externally or into the larynx, and consequent fatal hæmorrhage. Such result was anticipated by the increasing pressure of the tumour upon the trachea, causing an earlier fatal termination from suffocation.

E. S., aged 48, came as an out-patient under the care of Dr. Ward, on June 23rd, 1863, gives the following *history*:—Is a married man; the father of nineteen children, of whom ten are alive; and is by occupation a tailor. Was fond of drink, especially beer, in early life, but not a drunkard. Never had syphilis. Had been subject to chronic rheumatism in the shoulders and arms. A twelvemonth ago he was seized somewhat suddenly with cough, palpitations, a sense of tightness and oppression at the chest. Is not aware of having strained himself, but attributes his illness to exposure to cold.

Had been in the habit of working in a close, low-roofed room, heated by gas.

Present Condition.—Suffers from hoarseness, said to be not constant; has paroxysmal, harsh, dry cough; marked dyspnœa, with stridulous inspiration; no dysphagia; right pulse of good volume; left smaller, and occasionally irregular; sleeps badly; orthopnœa, with head inclined somewhat forwards. A little frothy expectoration with the cough, but has never had any hæmoptysis; no œdema or other noticeable pressure signs; left pupil more contracted than right. Physical Signs.—Prominence over centre of the sternum, most marked at its right border; impulses felt over this at the third interspace. Dulness on percussion from right nipple up to upper border of sternum, and over upper half of this bone. A double murmur at both base and apex; loudest to left of right nipple; but loudly audible over entire chest. There is a single marked bruit over carotids and subclavians; but over pulmonary artery and second left interspace this is harsher and nearer to the surface. The lungs expand fairly, and air enters both everywhere freely. He was ordered a large belladonna plaster over the front of chest, the quinine and iron mixture, with fifteen drops of chloric ether, three times a-day, and ten grains of pil. ipec. c. scill. every night. To keep principally to meat diet, with a little weak brandy-and-water occasionally.

Progress of Case.—The patient attended every week at the Hospital through the months of July and August. He appeared to derive relief from the remedies used, and did not present any material change in his symptoms up to August 25, when the following report was made of him:—Complains much of perspirations at night, and of soreness over the right side of chest and sternum, increased on coughing, and then extending to the back of the right shoulder. His voice is weaker, his aspect paler, and there is more general debility. He expectorates frothy, watery fluid, but no blood. The prominence to the right of sternum is most marked, with visible pulsation over third interspace, and a sense of fluctuation with tenderness to touch at this point. On September 1 there was much less pain over the right side of the chest, but his general condition was worse. From this date his symptoms, general and physical, became aggravated, and he was visited from time to time at his own house until his death on September 30. For four days previously to his decease he had marked dysphagia, and could swallow scarcely any food; his breathing became much more embarrassed, and he died suffocated.

Post-mortem made October 2, about Forty-Eight Hours after Death.—A stout built man, fairly nourished, face puffy, and some œdema of chest and abdominal wall, but barely any of either extremities. Rigidity not completely gone off in lower extremities. Body generally pale, and no discoloration of depending parts. No traces of any old syphilis on penis or about inguinal region. On gently raising one side of the sternum the edge of the left lung was seen *in situ*, but on attempting to lift up the other side it was found adherent in all its length, and these adhesions extended as far to the right as the line of the outer border of the costal cartilages. The sternum was now carefully detached by dissecting away the adhesions, which were seen to proceed from an aneurismal sac occupying the right side of the anterior mediastinum; but the coat of the sac itself was so closely united to the bone and surrounding parts opposite the third rib and intercostal space that it was cut into at that part. The contents of the thorax were next removed *en masse*; there were no pleuritic or further adhesions. Pericardium normal. The heart was large, its weight being probably from 12 to 13 oz. There was a good deal of fat on its external surface. The right cavities contained some firmish clot; valves healthy. The left were both dilated, the ventricle forming much more than its share of the apex; the walls considerably hypertrophied. Muscular substance pale fawn colour. Mitral valves somewhat rough and thickened, but probably competent; aortic valves considerably thickened and roughened, and must necessarily have caused obstruction as well as allowed of regurgitation; the aortic orifice of normal width. Immediately beyond, the vessel was much thickened, etc., and almost at once, by its uniform dilatation, formed the aneurismal sac seen on opening the thorax. This contained some loosish decolorised clot, but no laminated coagula. The walls of the vessel were thickened, especially the outer. The sac was of considerable size, and involved the whole of the ascending aorta beyond the pericardium and part of the transverse portion. The innominate and left carotid and subclavian were unaffected, and the left innominate vein was pervious. Besides the general body of the sac, there were three or four glove-like pouches of its walls: one of these was cut across, as already stated, opposite the third intercostal space; and two others had extended towards the trachea. The larger of them having become adherent to this, had laid bare two of the cartilaginous rings, and formed a pouch into the trachea at the intervening part. The smaller was situated just above the bifurcation of the trachea, and the larger about a couple of rings higher up. The descending aorta had extensive atheromatous deposit beneath its internal coat; but the elasticity of the vessel was not materially impaired. The condition of the vagi and recurrent laryngeal was not noticed. The œsophagus: Mucous membrane white and softened; the canal of equal and normal dimensions; bronchial glands healthy. The lungs were somewhat congested, but otherwise healthy; no pulse or any apoplexy. In the interior and front of the trachea towards the lower part, as already mentioned, were seen the two projections of the aneurism, the larger forming a swelling the size of half a walnut. The mucous membrane over it was entire. Both bronchi were pervious, and appeared to have escaped pressure. Abdomen: Liver healthy; gall bladder contained some olive green bile. Spleen somewhat firm, healthy (weight about 7 oz.). Kidneys: Capsule stripping easily; on section somewhat congested; bases of pyramids frayed out; and cortical substance having granular look.

For the above report we are indebted to Dr. Lanchester, late Resident Physician.

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Medical Times and Gazette.

SATURDAY, DECEMBER 31.

"THE MEDICAL TIMES AND GAZETTE" FOR 1865.

We are so embarrassed by the Index, which absorbs a large share of this number, and by several pressing matters of interest, that we reserve for the first number of the new volume our account of the *Annus Medicus* 1864. Here, therefore, we do not pause to thank the Contributors and Correspondents who have filled our pages during the present year; but proceed to say that we shall begin the new year with a Course of Lectures by Dr. Bence Jones, the programme of which we insert at the end of this article, and which will be looked for with intense curiosity by all who desire to know the relation of the most advanced general science to the daily practice of our Profession. There are some Series of Lectures and Papers which are in course of publication, and which we shall complete as early as possible;—amongst them Dr. Harley's very valuable Lectures for Practitioners on the Urine; the Papers on Modern Syphilography which are appearing in our Editorial Columns, and which, as we know, are highly commended by the Commission on Syphilis now sitting at the Royal College of Physicians; and the Reports on Cheap Wine, which are received with a great deal of attention, and appear to be opening men's eyes to facts about wine which were not heeded, even if known. We have made arrangements for a fuller and more methodical representation of Surgical Practice in our Hospital Reports, and besides have authorised a "Special Commissioner" to

inquire into and report upon the exact extent to which "Hospital Diseases," such as Pyæmia, have prevailed during the year 1864. So much for the present. Other matters are in preparation, of which we will say that they will be worthy of the past pages of this journal, and that they will furnish our readers with the newest and fullest details of some most important departments of practice.

LECTURES ON THE RELATION OF CHEMICAL TO MECHANICAL DISEASES.

By H. BENCE JONES, A.M., M.D., F.R.S.

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INDIAN MEDICAL SERVICE.—II.

IN our last issue we dwelt at considerable length on the advantages and disadvantages of the Indian Medical service as constituted by the new Medical Warrant, and it remains now to give a brief sketch of the duties of the Medical officers in that service and of the incidental expenses which attend life in India.

First, as to duties. These must be considered under two headings—(1) those connected with military service, and (2) those connected with the civil department, the latter comprising civil or Zillah Surgeoncies, etc. The pay, it should be premised, assimilates nearly in both cases; but the civil appointments are most sought after by married men, not only for the sake of the more settled and quiet style of life, but also for the comparative cheapness of living and the increased chances of fees derivable from private practice, though these last, except in the large Presidency towns, are seldom of such an amount or character as to call for special consideration.

The duties of a Medical officer in the military department in charge of a native corps are simple, and not onerous under ordinary circumstances, the whole of his charge consisting of about a dozen European officers and their families, on an average from 700 to 800 Sepoys, including native officers, and in addition the camp followers; but the last named rarely come under European Medical treatment, trusting to their own native Doctors, excepting in cases of any alarming or dangerous illness. The Medical officer has once daily, or twice in cases of serious illness, to visit the regimental Hospital, and to keep records of all such cases as possess any special interest. The Regimental Apothecary or Dresser is always present at Hospital on these occasions to carry out instructions, make up medicines, etc. He has likewise to attend at their own quarters any of the officers or their families who may happen to be sick; and it may be remarked, *en passant*, that a large family of sickly children, with over-anxious and physic-dabbling parents, often gives more trouble to the Medical officer than a whole regiment of Sepoys. According to general orders, the Medical officer has always to be present when the regiment goes out to ball practice, to be ready in case of accidents. He has also, on the 1st of each month, to attend a general parade, or "muster," as it is termed, to show that he is "present for duty." He has likewise to act as a member of all Invaliding and Recruiting Committees, and to take part at mess meetings, etc. Once or twice a week he has to attend at the commanding officer's quarters, or at the orderly room, to report on the health of the regiment, and to offer such suggestions as he may deem needful, either on individual cases or on regimental hygiene, etc. When the corps marches he has to accompany it; but as we have already touched on this point in our former article, it is needless to allude to it again in this place. These form the main duties of a Medical officer in charge of a native corps. Under ordinary circumstances, a few hours each day is amply sufficient for their performance, without entailing much exposure to the sun by day or disturbed rest at nights. As a matter of course, the duties are more arduous when cholera or other epidemic prevails.

The duties of a Medical officer in the civil department consist mainly of attendance on the official civil authorities of the Station or Zillah, viz., the judge, collector, deputy-collector, magistrate, and staff of clerks, writers, etc.; in addition to which he has charge of the Gaol Hospital and Civil Dispensary, the latter being now established in almost every civil station throughout India. At the Gaol Hospital only convicts or gaol attendants are treated, whilst at the civil Dispensaries the poor of the neighbourhood receive advice and medicine gratis. An immensity of good may thus be accomplished. Some of the large central gaols, as at Agra, etc., have a Medical officer specially appointed to them, but in most cases the ordinary gaols fall under the charge of the Medical officer of the station. As in the case of the military Medical officer, the duties are not arduous, a few hours daily sufficing for their performance. The higher class of civil authorities generally fee (sometimes handsomely) the Medical officer in cases of serious illness in their families, accouchement of their wives, etc., but it is as well not to insist too strongly on this point. The richer class of natives, also, especially after operations, will now and then pay fees; but, as a general rule, these are few and far between. In Calcutta and Bombay the natives pay better than in Madras, the latter being comparatively poor. It would be beyond the scope of the present article to enter into the particular duties of special civil appointments, as the Professorships at the Presidency Colleges, Medical Storekeepers, Superintendents of the Eye Infirmaries, Lying-in Hospitals, etc.; suffice it that in none of them are the duties of a very arduous nature.

With regard to expenses, it is difficult to speak with precision, as men's habits, tastes, and requirements differ so materially. An element which disturbs all calculations on this point is the existence of debt either on or prior to entering the service. A man who arrives in India in debt will often find himself embarrassed; whilst another who arrives free of

debt, or still better, with a few surplus pounds in his pocket, will generally find his way clear enough. An Assistant-Surgeon, especially if he be a married man, will find that during the period he is on "unemployed pay" he will have to exercise a careful economy to make both ends meet; but after obtaining charge of a native corps at £540 a year and upwards, there can be no doubt that he may secure, with ordinary care, all the necessaries and comforts of life; and further, that he may at the end of the year find a balance of £120 or £150 in his agent's hands. After the first five years, when the income rises to £720 a year, the savings will proportionally increase. At the Presidency and other large towns, where there is much society, the expenses are of course increased; but it is certain that at an up-country station, with ordinary economy, £400 will support a married man in comfort and even luxury. We will, in conclusion, enumerate a few of the principal items of expenditure:—

Of these the largest item generally is house rent, and it is an unwise economy to endeavour to reduce this to any extent, for in a country like India it is of the greatest importance, no less to comfort than to health, to secure a large commodious house in a good open locality. Economise anywhere but in house rent. In most up-country stations £70 to £80 a-year will secure all that can be desired in the way of house accommodation.

Horseflesh is another necessary and great expense. A bachelor may manage well with one good horse, which will cost originally from £20 to £30, and cost in keep, attendants, etc., about £25 a-year extra. A married man without family may manage well with a good single pony carriage, but if with a family a larger carriage with two ponies, or an additional bullock coach, becomes necessary, and this of course increases the expense.

Servants are another great expense, and this arises not so much from the height of wages to individual servants as from the number of attendants rendered necessary by custom, the rules of caste, etc. Their pay varies from five shillings a month (for the sweeper woman) to twenty-four shillings (for the butler, khitmagar), but as none of the servants are found in food the wages generally comprise the whole of their expense: hence a dozen servants in India will not cost more (nor on the whole do more work) than two good English women servants will do at home.

Food, which was formerly so cheap in India, has since the mutiny of 1857 greatly increased in price, and now forms no small item in house expenditure. All European articles, ale, wine, spirits, are dear, and if used largely make a great inroad on income. Washing fortunately is very cheap.

The one great expense that a man should never lose sight of is, having either to go himself or to send his wife or family to England. Few men escape this expense at one time or another of their service, and he must save up in order to do it with comfort and without running into debt, which latter contingency in India, as well as in other countries, should be religiously avoided.

THE WEEK.

THE BIRKENHEAD CASE.—PRYCE *v.* BOWEN.—THE BEST POSITION FOR A BROKEN ARM.

We print in another column a report of a meeting of the Medical Practitioners of Birkenhead to sympathise with Dr. Bowen, who has been subject to an action for malpractice, to denounce the conduct of one or two Medical men who came forward as experts to condemn Dr. Bowen's treatment, and to raise a subscription for defraying the expenses of the defence. Let us begin by describing the defendant from his own deposition:—

"Dr. Bowen deposed that he was a fellow of the Royal College of Surgeons, having passed his examination in the last month, and he was also a doctor of medicine of St. Andrew's, Scotland. He commenced his practice in 1857, under Mr. Mackmurdo, one of the senior Surgeons at St. Thomas's Hospital, where witness was "dresser" for the unusually long period of three years, having the care of all cases in the absence of the Surgeon. Had considerable experience of fractures during that time. Afterwards became Assistant-Surgeon to the Royal Artillery, and served throughout the whole of the war in the Crimea. Was serving in the battle of Inkerman, and throughout nearly the whole of the siege of Sebastopol. Received a medal and two clasps, and also a Sardinian medal for the same service in the trenches. Twelve months afterwards left the army, and became Honorary Surgeon at the Chester Infirmary, where he continued for two years. Then succeeded Dr. Dickson in his practice at Birkenhead, where he had been nearly three years, and since his residence there he had been appointed Surgeon to the Birkenhead Hospital."

Such being the status of the defendant, he was called in on December 16, 1863, to a Mrs. Pryce, who had broken both bones of the forearm. He found her sitting with her right arm in her lap, in an attitude which showed to the eye of the experienced Surgeon at a glance that it was broken. Accordingly he got ready splints at once, and, as he swears, put up the arm in the usual semi-prone position with the thumb uppermost. The cure did not go on well; the arm swelled and inflamed; vesications or blisters showed themselves, as is very common in cases of severe contusion with fracture; then came sloughing of skin and tendons; and at the expiration of six weeks the patient passed into the hands of a bone-setter, and then into those of Mr. Thomas, a Surgeon. At the present time it is sworn that the arm is crippled, and the bones glued together, which is not much to be wondered at, if true, though it is denied by Mr. South, who went down as a witness for the defendant.

An action for alleged improper treatment was brought against Dr. Bowen, and it is worth our while just to glance at the evidence raked together against him. First, there is a very little thing, a mere trifle in itself, but one which says volumes for the experience of Dr. Bowen, and for the ignorant spite of the plaintiff: she swore that he did not examine the arm before he got the splints ready. Of course not; his surgical eye saw the fracture, and he did not put the patient to the torture of two manipulations. The only point of consequence was the plaintiff's reiterated assertion that the arm was placed in the *prone* position with the palm downwards, to which alleged fact the plaintiff, the bonesetter, and the Surgical witnesses for the prosecution ascribed all the subsequent mischief.

Now, this is positively denied by Mr. Bowen, who swears that he put the arm with the thumb uppermost; and even if it were true, it is difficult to conceive how it could have done the mischief, for the bandages were loosened and re-adjusted the next day; and it was admitted on all sides that the defendant had paid the greatest attention, and that none of the mischief arose from pressure of tight bandages. Mr. South, Mr. Hakes, Mr. Long, and Mr. Bickersteth deposed to the correctness of Dr. Bowen's treatment, Mr. Justice Blackburn summed up strongly in his favour, and the jury returned a verdict accordingly. There is no doubt but that the sympathy of his brother Practitioners will alleviate the smart of this vexatious incident, and that their purses will lighten the load of costs. If there be any one who may be expected to contribute with romantic generosity, it will be Mr. Lund, described as "Surgeon of the Manchester Royal Infirmary," who came forward to swear that "*if* Mrs. Pryce's description was true," she had been improperly treated, and that the arm ought to have been placed *supine*; certainly, a *good* position, and sanctioned by Abernethy, but not so good, nor so easy, as the semi-prone.

We claim for the *Medical Times and Gazette* the credit of making known to our Professional brethren the fact that no one need attend as an *expert* unless he choose. All such attendance is voluntary. Mr. Lund need not have listened to Mrs. Pryce; he might at least have heard Dr. Bowen before believing her (knowing the colour that patients put upon their

stories), and he might have reflected that if some case of his own had gone wrong, he would not have liked, when his whole character and fortune and prospects depended on the issue of a trial, to have seen one of his Professional brethren coming forward and giving adverse speculative evidence, founded on a woman's necessarily imperfect and distorted view of the facts.

THE LATE INQUEST AT ST. BARTHOLOMEW'S HOSPITAL.

On October 30, 1864, a man named Timothy Daly, aged 28, was brought into the Holborn Union Workhouse, suffering from acute rheumatism. He was 5 feet 9½ inches in height, and he was put into a bed 6 feet long and 2 feet 7 inches wide, in which he was obliged to lie with his legs constantly in a semi-flexed position. Some time after his admission bed-sores formed. After remaining in the Workhouse Infirmary for six weeks, he was taken home by his friends, and a week afterwards was admitted at St. Bartholomew's. He died the next day. Dr. Andrew, Assistant-Physician to St. Bartholomew's, deposed at the inquest that on his admission he was suffering from extreme exhaustion and prostration, and that he had large bed-sores. The post-mortem showed advanced pericarditis, and recent inflammation of the right lung and pleura. His death was by Dr. Andrew attributed to exhaustion arising from the bed-sores. On his removal from the Workhouse he was attended at his own home, 2, Union-court, by Mr. Lowne, the resident Medical officer of the Farringdon Dispensary. Mr. Lowne gave evidence "that he was much emaciated, and his knees were drawn up and contracted. He would have been permanently crippled if he had lived. He was suffering from rheumatism affecting the great joints of the body. There were two large sores denuding the hip-bones of flesh for three inches. He complained that he had been put in a bed only fit for a lad to lie on. He said that his poultices had not been changed, and that no charcoal had been used. The sores were very much inflamed, and the stench was dreadful. He was a strong, powerful man, of muscular frame. His death arose from bed-sores. He would have had no bed-sores if he had been under witness's care."

"In reply to Mr. James, who represented the guardians, the witness said it was not only prudent, it was necessary to remove the man from the Holborn Infirmary when he was so treated in it. The witness had got rid in forty-eight hours of the horrible smell by proper antiseptic appliances. The witness had 2000 cases a year, and they never had a bed sore. In rheumatic fever a man could be kept in bed twelve years without sores.

"Mr. James said that perhaps the witness sent all his bad cases to the Hospitals, to which the witness replied, 'Thank God, I never had such a case in my life.'

"Mr. John Norton, Surgeon to the Holborn Union Workhouse, said that he first saw the deceased on October 30, when he came into the house. He was emaciated and dirty, and had not been properly attended to. He was suffering from acute rheumatism. He got bed sores when he was four weeks in the house. Poultices of linseed meal and beer grounds were applied three times a day. His bed was six feet long and two feet seven inches wide. He was very low, and sometimes delirious. His hands, knees, and joints suffered from rheumatism. He never complained about his bed. Disinfecting fluid was used. Milk, wine, beef-tea, and porter were given to him. He expressed no wish to leave the workhouse. He was forty-five days in the house, and in that time he got ten pints of wine and forty of porter, two pints of milk every day, arrowroot whenever he could eat it, and mutton for dinner. The deceased died from exhaustion from rheumatic fever while in a typhoid state. There was a complication of bad diseases. It was highly dangerous to remove him from the house.

"William Lewis, wardsman, gave similar evidence, as did also the Deputy-Assistant-Surgeon of the Workhouse.

"Mrs. Daly, a domestic servant, said she visited deceased in the workhouse. He complained of want of attention. Witness spoke to the master, who said he had all the attention possible. The young man Lewis appeared to be attentive. When the deceased was removed he said, 'All the kindness I have got is from the master. The poultice has never been changed. The Doctor has passed by, but never looked at me.' Witness had thanked the master for the kindness which deceased had received in the house.

"Two nurses deposed that they had seen the Doctor examine the deceased's sores at least three times a week, and also that deceased was inattentive to cleanliness, etc.

"Mr. W. Francis, master of the workhouse, gave evidence similar to that of Mr. Norton. He said that deceased's linen was changed whenever required, and that he and the chaplain had requested the wife not to remove the deceased.

"The Coroner said that, in his opinion, a case of manslaughter had not been made out against the workhouse Surgeon. It was in evidence that the widow of the deceased had expressed her thanks for the treatment he had received.

"The jury, after three-quarters of an hour's deliberation, returned the following special verdict:—'We find that deceased died from exhaustion from bed-sores, and from rheumatic fever; and we find that while he was in the Infirmary of the Holborn Union he did not receive sufficient care and attention from the Medical officer.'"

It is no part of our duty as Medical journalists to defend members of the Profession when they are guilty of neglect either in public or private practice; but before we join with Mr. Lowne in his indiscriminate denunciation of the treatment this man had received, we should be glad to learn the means and appliances allowed in the Holborn Workhouse for the treatment of such cases. Were water beds at the command of the Medical officer, and was it his fault that the man was placed in a bed manifestly too short for him? Then, again, what was the state of Daly when he was admitted into the workhouse? Was he the strong man which his friends represented, or the emaciated invalid which Mr. Norton described? These points should be cleared up before we entirely condemn Mr. Norton. We should be sorry to believe that any member of our Profession could be guilty of neglect which amounted to the crime of cruelty, and we cannot endorse Mr. Lowne's statement that bed sores ought never to occur in cases of rheumatic fever of however long standing, because unfortunately we know that they do occasionally form, even in patients who are anxiously watched and skilfully treated. A cachectic, badly-nourished labourer, in the fifth or sixth week of rheumatic fever, with a heart disabled by pericarditis, was just a subject in which the powers of nutrition would be at zero; and whilst we do not undertake to be the champions of Mr. Norton if it be shown that he was guilty of neglect, we feel bound to say that we should have been glad to have seen on the part of the gentleman who first saw Daly after his discharge from the workhouse a greater disposition to give due weight to possible circumstances of an exculpatory character. We trust, for the sake of public justice, as well as for that of the poor of the Holborn Union, that a full inquiry will be made into the whole circumstances of the case by the Board of Guardians and the Poor-law Commissioners.

THE SWISS POISONING CASE.

No trial for poisoning with criminal intent has, since Dr. Smethurst's case, excited so much general and Professional interest as that of Dr. Demme, of Berne, for the murder of his patient, M. Trümpy; and we feel the more impelled to give our readers an outline of the more salient points of the case as the accused man was no stranger either to us or them. Dr. Demme was, in fact, for several years an active contributor to this journal, being the special correspondent of the *Medical Times and Gazette* for Switzerland. Amongst the papers we published from his pen, we will only mention a capital report on the fatal accident which happened in 1861 in the bear-pit at Berne, to a Norwegian gentleman of the name of Lorck (vol. i. of this journal for 1861, pp. 453-5); and a very complete and able account of the annual congress of German naturalists and Physicians in 1861 (vol. ii. of this journal for 1861, pp. 587-590).

Dr. Hermann Demme was the eldest son of Professor Demme, who has for years held the chair of Clinical Surgery

at the University of Berne, and has the reputation of being an excellent Practitioner. The son studied Medicine at the Universities of Berne, Berlin, and Paris, and distinguished himself by his natural parts and his close application to the study of Medicine. In 1859 he entered the Medical service of the French army during the war in Italy, and made good use of the plentiful opportunities for observation of Surgical cases afforded him in the military Hospitals of Milan. He collected quite a museum of specimens of injuries from gun-shot and bayonet wounds, most of which he exhibited at the annual meeting of German naturalists and Physicians held at Speyer in 1862. He also wrote a work on military Surgery, founded principally on his own observations during the Italian campaign, and containing a great amount of valuable original matter. This work at once gave him an honourable place amongst the scientific Surgeons of the day, and we reviewed it with terms of praise in this journal for November 15, 1862. He was also enrolled amongst the contributors to the great German "Cyclopædia of Surgery" now in course of publication, under the editorship of Professor Pitha, of Vienna, and Professor Billroth, of Zurich—a work for which only the most eminent of German Surgeons have been chosen. Demme's friends believed ambition to be the chief feature of his character, and for one so young—he had scarcely completed his thirtieth year when his career was cut short—he certainly had done more and attained more than most men of his age. His name was favourably known to the scientific world; he was one of the most popular and successful Practitioners at Berne; he was also attached as private teacher of Surgery to the University of Berne, and there was very little doubt that if Demme, senior, should have retired from the Professorial chair, to seek his well-earned repose, his talented son would have been his successor.

In the summer of 1862, Dr. Demme was called in to see a lady of the name of Trümpy, whose left eye had just been knocked out by her husband with a bottle. He brought the patient into a *maison de santè*, and visited her daily there for about two months. The marital quarrel was made up, and Demme became a friend both of husband and wife. M. Trümpy, a mercantile agent, of somewhat low extraction, had by dint of industry and perseverance raised himself in the social scale. His business was brisk, he had an elegant cottage near Berne, kept a carriage and horses, lived in a somewhat luxurious fashion, and was very fond of the sex. He had married his wife in 1846, and had had a small fortune with her. Madame Trümpy, although no longer young (she is now 39 years), was considered pretty, but not very intellectual; for the last few years she had been highly excitable and hysterical, and during her imprisonment previous to the trial she was subject to hallucinations. Both M. and Madame Trümpy were fond of their wine.

In summer 1863, they made a pleasure trip to Constantinople, whither they were accompanied by Dr. Demme. Trümpy often had words with Demme, but always repented of it afterwards, and often threatened to shoot himself. He gave a great many presents both to his wife and the Doctor during the journey, and was sometimes very kind and attentive; but at other times he would fall in a hypochondriacal mood, and absent himself without any motive. After their return from Constantinople, Madame and Miss Flora Trümpy, the only offspring of the marriage, went to the waters of Weissenburg, in the canton of Berne, where they were visited both by M. Trümpy and Demme; the latter staying longer than the former. According to Demme's statements, he was then engaged to be married to Miss Trümpy, and he at this time made her a present of a large diamond ring, which was afterwards proved to have been stolen from the Brazilian ambassador to the Prussian Court, who had been ill in Berne, and had been under Demme's care.

In the meantime, Trümpy had entered into large business transactions of an unsound character, and the failure of a spirit merchant in Berne involved him to such an extent that he became unable to meet his liabilities. His credit was quite shaken, and although he did not become a bankrupt, there was every probability of such an event being about to occur. About a month before his death, Trümpy was treated by Demme for a syphilitic affection; on February 14 last an operation had to be performed. Trümpy was in despair, and said he was sick of life. Demme watched, at the request of Trümpy, at his bedside during the night of the 14th, and administered chloroform to him. When Demme left his patient, Trümpy thanked him in the most fervent manner, saying that he should have died unless Demme had been present. In the evening of February 15 Demme returned, and remained the whole night in Trümpy's house. On the morning of the 16th it was said in Berne that Trümpy had died the night before by his own hand; some said by poison, others said he had hung, and the rest, he had shot himself. No suspicion of Demme or any other man having had a hand in it crossed the minds of the people. It was only after some time, and to a great extent by Demme's own doings, that suspicion was aroused against him.

Shortly after Trümpy's death, which occurred about 3 a.m., in his cottage, Demme drove into the town, awoke an undertaker, ordered a coffin, and said there was great haste, as the body was fast undergoing decomposition. That such was the case was afterwards contradicted by witnesses. Some time after having ordered the coffin, Demme went twice to Trümpy's office, and ordered the clerks to draw up the accounts and search for a life policy; Trümpy having several times mentioned that he was insured for £3000 in a London insurance company. On the same day Demme made, without the presence of another Medical man, a private post-mortem examination of Trümpy, and sent a report in to the Government, in which he said Trümpy had drunk much water during the night, and had taken some soothing medicines. He had slept quietly until 2 o'clock, and at 2·45 he had suddenly exclaimed he felt great anxiety; Demme had then placed a pillow under his head; a moment afterwards Trümpy had whispered that he had lost the use of his right side, his face had then become livid, and soon after ghastly pale, the extremities were slightly convulsed, the expression had become fixed, and death taken place. Demme had then first opened a vein, and afterwards acupunctured the heart, but without any result. He therefore concluded that Trümpy had died of extravasation of blood into the brain and medulla oblongata; and this supposition was confirmed by the post-mortem appearances; for he had indeed found an effusion of blood of seven to eight ounces in the cerebellum, medulla oblongata, and spinal cord, and small apoplectic infarctio in the nervous matter.

In consequence of this report and the rumours which soon afterwards were afloat in the city, an official post-mortem examination of the body was on February 18 undertaken by Drs. Emmert and Küyfer. They did this in the presence of Demme and a few Government officials, and put the stomach and intestines in vessels which were sealed. On February 25, Demme heard that ten grains of strychnia had been found in the stomach and duodenum, and he thereupon, on the 28th, sent in another report to the Government, in which he gave it as his opinion that Trümpy had poisoned himself, and related the circumstances of his death differently from what he had written before. The Medical jurists concluded from their examination that Trümpy's death was not due to accident or suicide, but to a criminal action on the part of some person or persons; and that, as Demme had watched at Trümpy's bedside on the night of his death, and an illicit connexion was believed to exist between him and Madame Trümpy, he and she ought to be put on their trial for murder.

The trial commenced on October 25 last, and was only concluded on November 6. The first two days were taken up with the reading of the indictment and the interrogation of Demme. His answers were quick and apparently straightforward. He said that as far back as 1862 Trümpy had mentioned his intention of committing suicide; he denied that

any improper familiarity had existed between him and Madame Trümpy, and said that he had only, as a friend, occasionally taken her part against the rudeness and cruelty of her husband; that it was at the instance of Trümpy himself that he had watched at his bedside, and that the discrepancy between his two reports might be easily explained. He had at first believed that Trümpy had died of apoplexy, but having afterwards heard that poison had been found in the body, he had endeavoured to show how the symptoms might be reconciled with that circumstance. He also mentioned that a few days before his death Trümpy had taken a great deal of sherry contrary to Demme's ordination; that in the evening preceding his death Trümpy had had on his table a half-emptied wine glass, and had said that the fluid in it was bad sherry. Trümpy had drunk this fluid at about 2·30, and had then said that he should now be able to sleep, and that soon afterwards his death took place in the manner described above.

The aspect of the case became very complicated by several anonymous letters which were enclosed in the indictment. In one of these an old maid-servant of Trümpy's was exhorted not to allow that Miss Trümpy should be married to a man who had seduced her mother and poisoned her father. The servant showed this letter to Demme, who, in his turn, sent it to the Government, as he said, for the purpose of showing how much he was persecuted by his enemies. Demme himself then wrote an anonymous letter to the same maid-servant, requesting her to denounce him as the murderer, and enclosing a twenty franc piece! He then wrote another anonymous letter to himself, in which he rejoiced that the "great unknown" had so quickly succeeded in ruining his (Demme's) position in Berne! On being asked why he had written these letters, he said, in order to counteract the intrigues of his enemies.

The statements of Madame Trümpy, on the whole, coincided with those of Demme. She said that Trümpy had often threatened to kill himself, and that he had been in the possession of poison since his journey to the East. She also mentioned that a short time before Trümpy's death a dog and a swan in their garden had suddenly died, most likely by poison given them for experiment's sake by the would-be suicide. Before the trial came on, she had written a letter, in which she accused herself of being the murderess of her husband, and had ascribed everything to her propensity to drink; but she afterwards denied the allegations contained in that letter, saying that when she wrote it she had lost all control over herself. One of her servants during the trial utterly denied that Madame Trümpy had been so fond of drinking as she had said herself. On the whole, the witnesses, as well as the "superior scientific experts," made it likely that suicide and no murder had been committed. The latter gave the following as the result of their inquiries:—

1. M. Trümpy died of poisoning by a large dose of strychnia.
2. Death took place by apoplexy and suffocation, most probably in a tetanic spasm.
3. Trümpy's state of mind during the days preceding his death was very much depressed, partly owing to the disease from which he suffered, and partly from anxiety as to his financial position.
4. Demme's statements regarding the history of the poisoning are in several particulars contradictory and improbable.
5. Demme's Professional proceedings deserve serious censure.
6. There is no reason to believe in accidental poisoning.
7. There are motives for suicide by Trümpy.
8. There are no Medico-legal facts tending to prove that others should have been concerned in his death.

One of the superior scientific witness, Dr. Scharer, strongly insisted upon the probability of suicide, and remarked that the discrepancy between the two reports furnished by Demme was not so great as to give reason for believing them to be untrue.

Dr. Husemann regretted that the liver had not been examined, for the poisoning could only be considered strictly proved if strychnia had been found in that organ. If ten grains of strychnia were found in the stomach of a dead man people would suppose that he had been poisoned, but this was no certain scientific proof.

On the whole, the statements of the witnesses were decidedly in favour of Trümpy having committed suicide, and it was, therefore, generally expected that the verdict would be one of "not guilty" for both prisoners. Such was indeed the case, but the jury coupled it with a strong censure of Demme for having sent in or two false reports to the Government. They found, however, that there were extenuating circumstances. The public prosecutor thereupon proposed that the licence to practise should be withdrawn from Demme for a period of five years. The judges, however, gave the following sentence: Madame Trümpy to have a compensation of 1540 francs; Demme to have no compensation, but to bear half the costs of the trial.

The sequel of the story is only too well known. In consequence of the great publicity given to these proceedings, the Brazilian Ambassador to the Prussian Court and another person recollected that two valuable diamond rings had been stolen from them while at Berne, under Demme's care; and believing him to be guilty of the theft, proceedings were taken against him. Demme then sought to escape disgrace by suicide, and he accomplished his purpose at Nervi, near Genoa.

FROM ABROAD.—AN EDICT OF LOUIS XIV.—M. ROUDANOWSKI ON THE ACTION OF POISONS ON NERVOUS STRUCTURE.

In his recent report upon the position and relations of the Medical Profession, made by M. Amédeé Latour to the French Medical Association, while adverting to the project of demanding additional Medical legislation at the hands of the ruling powers, he noticed incidentally a remarkable and atrocious *ordonnance* promulgated by Louis XIV. towards the end of his reign, in which he menaced with deprivation any Physician who, called to a patient suffering from a dangerous disease, neglected to apprise him of his danger, and to see that he was duly confessed by a priest. Such an attack upon the dignity and independence of the Profession seems to have been entirely forgotten in France, and its present announcement has been received with some incredulity. However, there can be no doubt as to the reality of the promulgation of the edict, although the immediate cause of this, and whether it was ever practically put into execution, do not seem so plain. There can, indeed, be nothing surprising in such a document being issued by Louis XIV. at this period of his career, enveloped as he was by the darkest bigotry and priestly influence, when long prior to this, in 1666, he issued an edict no less shameful—commanding, under pain of a fine, Surgeons to denounce to the authorities those of the wounded during the civil conflicts who sought their assistance. The *ordonnance* as to confession was issued at the instigation of Cardinal Noailles, Archibishop of Paris, and bears date Versailles, March 8, 1712. The following are extracts:—

"We hereby declare and ordain as our royal will and pleasure that all Physicians of our kingdom shall hold themselves bound upon the second day of their visiting patients attacked by fevers or other diseases which by their nature may lead to death, to exhort them to confess, or to cause their family to give them this advice. And in the case that neither the patients nor their friends seem disposed to follow this advice the Physicians shall hold themselves obliged to advertise the curate or vicar of the parish in which such patients dwell, and obtain a certificate from them to the effect that such advertisement has been given. Physicians are prohibited visiting these patients on the third day, unless the confessor has duly certified to them that these such patients have confessed, or at all events that the confessor has seen them and prepared them for the reception of the sacramento. Physicians who have thus apprised the confessors of the residences of such patients, and are provided with certificates from them of their having done so, are at liberty to continue their attendance without incurring the subjoined penalties. We will that those Physicians who may contravene this our present declaration shall be condemned for the first offence to a fine of

300 *livres;* that for the second they shall be interdicted from all functions or practice during at least three months; and that for the third offence they shall be deprived of their degrees, their names erased from the lists of the faculties, and prohibited for ever from practising in any part of our kingdom."

In addition, it is stated that when the urgency of the case demands it, the patients must be urged to confess even before the second day. In the absence of Physicians, Surgeons and Apothecaries are enjoined to perform this duty under similar penalties. Well may M. Latour exclaim "From the remotest periods the device of the Physician has been 'Hope and Pity;' Louis XIV. tried to substitute another, 'Treason and Despair.'"

M. Roudanowski has recently read, at the Academie des Sciences, a memoir of some importance on the structure of the nervous system, and a new mode which he has devised of investigating it. This last consists in slicing the nervous tissue previously frozen at a temperature of from 10 to 15 Reaumur. These slices are coloured by means of an aqueous decoction of cochineal, and then covered with Canada balsam or with a mixture composed of six or seven parts of *ichthyocoll* and eight of glycerine. Having described the minute structure of the spinal nerves and of the nervous centres, he gives an account of his observations upon the action of poisons on the nervous tissue. 1. Having poisoned cats, dogs, and rabbits by strychnine, nicotine, opium, and chloroform, he has fouud that all these substances induce changes in the nervous tissue. 2. The more energetic of these, as strychnine and nicotine, induce alterations in the nervous cells and their branches, while chloroform, opium, and perhaps alcohol, induce changes in the myeline. 3. The changes consequent upon nicotine are indicated by the strong pigmentation and destruction of nervous cells, with their prolongations only in the spinal cord at the point of commencement of the hypoglossal and vagi nerves. 4. Under the influence of these poisons he has remarked that, together with the congestion of the vessels of the roots of the nerves of the spinal cord, the reservoirs also increase in size. 5. A drop of an energetic poison, such as nicotine, kills a large animal, not because it chemically alters the metamorphic processes of the entire economy, but because it destroys small organs like these nerve cells, which are the origin of the nerves of the principal vital organs. 6. Opium and chloroform act on the myeline, which, in place of assuming the form of amorphous granules, takes on that of brilliant shining bodies.

PRYCE *v.* BOWEN — MEETING OF MEDICAL PROFESSION AT BIRKENHEAD.

At a meeting held at Dr. Scholfield's house, 14, Hamilton-square, on the evening of December 27, 1864, of the Medical Practitioners of Birkenhead—present, Dr. Walker, Dr. Scholfield, Dr. Stevenson, Dr. Ricketts, Dr. Spratley, Dr. Lambert, Mr. Jacob, Mr. Daniels, Mr. Lamb, Mr. Godden, Dr. Downing; Dr. Scholfield in the chair—notes were read from Dr. Vale and Mr. Jennette, expressive of sympathy on behalf of Dr. Bowen after the recent persecuting and annoying trial, Pryce *v.* Bowen.

Dr. Walker moved the first resolution, which was seconded by Mr. Godden, and carried unanimously:—

"That this meeting desires to express its deep sympathy with Dr. Bowen on the vexatious trial to which he has been subjected in the case of Pryce *v.* Bowen, and begs to offer its sincere congratulations on the very satisfactory manner in which his Professional skill has been vindicated by its result."

Proposed by Dr. Spratley, seconded by Dr. Ricketts:—

"That this meeting strongly deprecates the conduct of Medical men appearing in court as experts to give evidence against their Professional brethren."

Proposed by Dr. Downing, seconded by Mr. E. L. Jacob:—

"That a subscription list be opened to assist in defraying the legal expenses incurred by Dr. Bowen in the late trial."

Proposed by Mr. Daniel, seconded by Mr. Lamb:—

"That Dr. Scholfield be requested to act as treasurer, and Mr. Godden as honorary secretary, to communicate with the Profession at large with a view to obtain subscriptions."

THE DISMISSAL OF SURGEON-GENERAL HAMMOND.(a)

(From a Correspondent.)

The Americans constantly complain that we do not understand them. How should we, when they continue to bewilder us by their actions? Here is a case which, in this rotten old country, would have raised such an outcry that a failure of justice could scarcely have occurred; and yet Dr. Hammond has been snuffed out with as little difficulty as a farthing rushlight, and nothing comes of it. The sittings of the court-martial which tried him commenced on January 17, 1864, and the sentence was not finally confirmed by the President until August 18; it is not easy to understand, therefore, why the accused and his counsel were not able to bring forward during the trial the arguments which Dr. Hammond urges with so much cogency in the pamphlet before us; or if they did so, why the Court dared to find him guilty in spite of them. We shall best serve Dr. Hammond's interests by stating briefly the charges brought against him, and his answers to them.

1. That he ordered Dr. Cox, Medical purveyor at Baltimore, to receive 5000 blankets of W. A. Stephens, of New York, on July 17, 1862. To which the accused replies that Dr. Cox himself ordered the blankets on July 3 for an emergency, and afterwards countermanded them, but was ordered to complete his bargain, as the blankets were of good quality and fair price, and were always needed. These facts were abundantly proved.

2. That he forbade Dr. Cox, May 1, 1863, to purchase Medical supplies in Baltimore, the order being intended to favour dealers at Philadelphia. The answer to this is that at Baltimore, where very few supplies were manufactured, everything was dearer than at Philadelphia or New York, at the former of which places a government manufactory had been by that time established.

3, 4, and 5. That he ordered Dr. Cooper, Medical purveyor at Philadelphia, to buy inferior blankets of W. A. Stephens, of New York, in May and June, 1862. To which it is replied that the blankets were of excellent quality, and that Dr. Cooper was perfectly free to order them or not, as he pleased. Moreover, that Dr. Cooper had a personal enmity against the accused, and not only swore falsely, but produced a copy of a letter which he said he had written to Dr. Hammond, but which he never had written. This forged copy was handed about Washington before the trial by a Jew corn doctor named Zacharie (said by the *New York World* to be a bosom friend of the President), who also had a grudge against Dr. Hammond for refusing to give him a post in the army.

6. That he ordered Dr. Cooper, on July 31, 1862, to purchase stores for six months, in order to give a large order to Wyeth and Brother, of Philadelphia. Dr. Hammond replies that he did order large quantities of stores to be provided at Philadelphia and elsewhere, to the great advantage of the service; but that Dr. Cooper himself suggested Wyeth and Brother as proper persons to supply some of them, and that the articles furnished by them were good in quality and quantity, and moderate in price, and not bad and dear, as the prosecution asserts.

7. That he corruptly ordered Wyeth and Brother to furnish 40,000 cans of extract of beef to the various Hospitals, etc., about October 8, 1862, which extract was unfit for use. The evidence was overwhelming in favour of the accused on this charge. The extract was proved to be both good and useful. Dr. Hammond also proves that both before and since his term of office the Medical Department has dealt largely with the Wyeths, and has been perfectly satisfied with their supplies.

8. That he ordered (March 1, 1863) the Medical Inspectors to send their reports direct to himself, instead of to the Inspector-General. Dr. Hammond admits that he gave the order, and justifies it; but the Court found him "not guilty" of giving it. The reason of the order was the incompetence and disgraceful bad faith of the person—a friend of Mr. Stanton—who then held the office of Inspector-General. We can confirm Dr. Hammond's statement from personal knowledge by saying that this was notorious in Washington some time before the order was given.

9. That he wrote a falsehood in a letter to Dr. Cooper. In this letter he stated that General Halleck had asked him to

(a) "A Statement of the Causes which led to the Dismissal of Surgeon-General William A. Hammond from the Army; with a Review of the Evidence adduced before the Court." New York. 1864.

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order a Dr. Murray, then on duty in the West, to Philadelphia; and that Dr. Cooper, of whose behaviour great complaints had been made, and whose office was "a lounging place, scarcely above a grog-shop in status," was the only person there who could be removed with advantage to the service; therefore, that Dr. Cooper must make way for Dr. Murray. General Halleck, in evidence, admits having written a note (produced) asking Dr. Hammond to order Dr. Murray to Eastern duty, *i.e.*, to a post in one of the large Eastern cities; but he does not remember having mentioned Philadelphia in conversation on the same subject, nor does he remember that Dr. Murray specified to him any place to which he wished to be ordered. Dr. Murray's original letter, however, is produced, in which he distinctly asks General Halleck to get him ordered to Philadelphia. After this proof of the fallibility of General Halleck's memory, one would think that Dr. Hammond might be believed when he says that General Halleck did tell him in conversation that Murray wished to go to Philadelphia; for how, he very pertinently asks, could he know that Murray wanted to go there, unless Halleck had told him? But no; on the strength of Halleck's not remembering to have said so, the Court find Dr. Hammond guilty of a deliberate falsehood.

10. That he ordered (Nov. 8, 1862,) the Medical storekeeper at Washington to purchase 3000 blankets of J. P. Fisher, which blankets were to be delivered to Dr. Cooper, Medical purveyor at Philadelphia. This is explained by the fact that 7000 blankets were required for an enormous new Hospital (Chesnut-hill Hospital), at Philadelphia, where, according to Dr. Cooper's own showing, none could be got for less than seven and a-half dollars a pair. Accordingly Dr. Hammond ordered 4000 to be forwarded from New York, and the 3000 in question, which were offered at less than six dollars a pair, to be bought in Washington. Dr. Cooper himself admitted that the blankets were good.

11. That he purchased Dec. 3, 1862, of J. C. McGuire and Co., large quantities of blankets and bedsteads not needed for the service. Of this charge the accused was acquitted.

And this is all. We have thought it best to lay the whole of the charges before our readers, that they may know what Federal court-martial justice is like; and that, if any of them should ever think of trying the service of the Stars and Stripes for a while, they may know what they have to expect. There are very few Englishmen in the service at present, and it seems likely that there will be still fewer in future. This is no doubt to be regretted, since the American continent now furnishes the best school of military Surgery that the world has seen for years, but it is inevitable.

Of course all the charges relating to purchases imply a fraudulent intent on Dr. Hammond's part, but when the prosecution failed in proving this it charged him with exceeding his authority. It appears to us that every one of the acts laid to his charge, when the element of fraud is disproved, comes within the ordinary duties of the head of an Army Medical Department. But Dr. Hammond was unlucky enough to fall out with Secretary Stanton two days after his appointment, and consequently was marked down by that Minister as a man to be brought to grief. Every request or suggestion of Dr. Hammond was met with opposition from the War Department, and every opportunity was taken of snubbing and insulting him. It is true that in this pamphlet we have only Dr. Hammond's side of the argument; but a special knowledge of the facts of the case enables us to say that it is the right side, and that treachery and injustice have been the real causes of Dr. Hammond's downfall.

Conversazione at Dr. Steevens' Hospital.—A conversazione was held last week at Dr. Steevens' Hospital. The proceedings, though rather of a scientific and philosophical character, were exceedingly interesting. There was a very numerous attendance of Professional gentlemen and students. Amongst those present were:—The Lord Chancellor, Dr. Croker, Dr. Colles, Professor Smith, Dr. E. Hamilton, Dr. Banks, Dr. Coates, Dr. Healy, Dr. Darby, Mr. White, city coroner, Dr. Spry, Dr. Sims, Dr. Freyke, Dr. Croly, Dr. Grimshaw, Professor Cameron, Dr. Wharton, Dr. John Barker, Dr. Carty, Dr. Wilmott, Dr. Fleming, Dr. Stoker, Dr. Tuffnell, Dr. Kidd, Dr. O'Grady, Dr. Cruise, Dr. Tait, Dr. Shannon, Dr. Robinson, Dr. Wright, Dr. Swan, Dr. Glover, Dr. Jacob, jun., Dr. Gordon, Dr. Osbery, Dr. Madden, Dr. Corrigan, Dr. Adams, Dr. Maurice Collis, Dr. Smyly, Dr. Francis Robinson, Dr. Mark Hamilton.

GENERAL CORRESPONDENCE.

THE GOSS TESTIMONIAL.

Letter from Dr. S. D. Goss.

[To the Editor of the Medical Times and Gazette.]

Sir,—May I beg to be allowed to thank you most gratefully for the great moral and kindly support afforded me by your valuable journal throughout the late vexatious and trying proceedings to which I was so cruelly and unjustly subjected? I can assure you, Sir, that without the assistance of the Medical press and the sympathy of, I may say, the whole of the Medical Profession, I should almost have succumbed to the great weight of anxiety that was heaped upon me.

Mr. Nowell Stowers has kindly handed over to me the sum collected for the costs incurred in my defence, and I must now tender to him and the other members of the committee, as well as those gentlemen who so kindly subscribed, my sincere acknowledgments and thanks, and to assure them that I shall ever vividly retain a lasting recollection of their extreme kindness and Professional brotherhood towards me.

I am, &c.

Samuel Day Goss, M.D.

Newington-place, December, 1864.

P.S.—A surplus remains, after paying the lawyer's bill; I shall hand it over as subscriptions to the Medical Benevolent College and the Widow and Orphans' Society. S. D. G.

THE BIRKENHEAD CASE—PRYCE *v.* BOWEN.

[To the Editor of the Medical Times and Gazette.]

Sir,—I sent you by this morning's post a copy of the *Liverpool Mercury* of Friday last, containing a very full report of a civil case tried by Mr. Justice Blackburn, at Liverpool, on the preceding day. The plaintiff in the action was a woman, who had become the subject of fracture of the forearm a little over twelve months ago, and the defendant was Mr. Essex Bowen, Surgeon, of Birkenhead.

You will observe that the plaintiff was supported by the notorious bone-setter Evan Thomas, at whose instigation it was said that the case was brought into court. The ignorance this man displayed in the witness-box was most amusing, if not pitiable. An important fact—if fact it be—also came out, and in the presence of a former President of the Royal College of Surgeons of England—that it is possible for a man to obtain the diploma of the above Corporation after *three* months at a Medical school. I do not know what explanation Mr. South or any of his colleagues can give of this fact. In my humble opinion, such a circumstance is a disgrace to any corporation.

But the fact to which I wish particularly to call your attention is this, that a Medical man occupying a not unimportant position as a Surgeon in Manchester was seen ranged on the side of quackery, giving evidence intended to damage a brother Practitioner. The groundlessness of the charge was soon apparent, and, of course, a verdict for the defendant was at once returned.

I have, therefore, to request you, as a public champion of our Profession, to deal with this case at your earliest convenience, in the way which, in your judgment, will be most productive of good.

Such a fellow (for he does not deserve the name of man or gentleman) should be scouted from the Profession, and I trust you will mete out to him his deserts. I am, &c.

Chester, December 28. G.

The Academie de Médicine.—For the ensuing year M. Malgaigne has been elected President; M. Bouchardat, Vice-President; and M. Béclard, Annual Secretary.

A Good Example.—M. Dolfus, the great and benevolent millowner at Mulhouse, struck with the frightful mortality of the young infants of women engaged in the cotton factories, conceived the happy idea of paying lying-in women their weekly wages for six weeks, in order to allow of their remaining at home during that period and bestowing the necessary cares upon their new-born infants. The result was that the mortality fell from a medium of 36 or 38 per cent. to below 25 per cent., the extra cost only amounting to 8000 francs for the year. Since then several other of the manufacturers of Mulhouse have followed M. Dolfus's example.

REPORTS OF SOCIETIES.

WESTERN MEDICAL AND SURGICAL SOCIETY.

FRIDAY, NOVEMBER 4.

Mr. GEORGE POLLOCK, President, in the Chair.

EXCISION OF THE HIP-JOINT.

MR. HOLMES exhibited to the Society two children—one a boy 7 years of age, the other a girl aged 10 years—in whom he had excised the hip-joint in the course of the present year, and a dissection from another successful case in which the child had died a few months after the operation of inflammation of the lung accidentally contracted. The latter preparation had been exhibited at the Pathological Society, and will be found more fully described in the 14th vol. of their *Transactions*. Mr. Holmes remarked that his object in this communication was rather to show what the results of successful excision of this joint are, than to discuss the general question of the propriety of the operation; he, therefore, merely dwelt so far on the latter subject as to insist that there are conditions for which excision holds out a prospect of cure where natural cure is hopeless, and in those cases the time required for recovery after operation is far less than that required for natural cure, while the joint which is left by it is more useful. In the case of the boy, there had been extensive abscess reaching nearly to the knee, and the child was rapidly sinking under the profuse suppuration at the time of the operation, which was performed in February last. At the operation the femur was divided through the trochanter, and the acetabulum, which was ulcerated, was scraped out. Recovery was comparatively speedy. The boy has been going about for some time, and has lately been walking on a high boot. All the wounds have long been soundly healed; there is motion in every direction; he can walk with a slight limp for a considerable distance, and his gait is daily improving as he becomes more accustomed to his boot; the shortening is about one inch and a-half. In the other case, that of the girl, there was great distortion at the time of the operation, much shortening, and very loud crepitation on rotating the limb. The head of the femur was lying loose in the joint, and the surface of the remaining part of the femur was ulcerated; consequently a natural cure was impossible. The acetabulum was healthy. The recovery was rapid, the operation having been performed in June, and the child having been about now for some weeks. It is only very lately, however, that she has been fitted with a high boot, so that she walks awkwardly as yet. The shortening also is greater than in the former case—about two inches,—but the range of motion is equally extensive. Most probably in both these cases the same state of things exists as in the dissected preparation, where the end of the femur is seen drawn up into the joint by the common tendon, and united to the acetabulum by numerous bands of adhesion, allowing free motion in all directions. A perfect capsule of fibrous tissue surrounded this new articulation.

In reply to a question, Mr. HOLMES said that he had never performed the operation except when there was abscess and loud crepitus on pressing the joint surfaces together.

Dr. WAY read a

CASE OF ANEURISM OF THE ARCH OF THE AORTA.

The subject of this disease, in the spring of 1861, received a severe blow upon the chest from a fall. In the summer of the following year he began to suffer severe pains in the chest, shoulders, and arms. In November of last year he first came under the author's observation, when a large, pulsating tumour was apparent; its centre was at the level of the third costal cartilage, and vertically in a line with the left sterno-clavicular articulation. The treatment pursued was the continuous application of ice to the swelling, and persisted in for upwards of six months. Absolute rest in the recumbent posture was also adopted. These means relieved the patient of the severe pains, and his general health improved. In June last an attack of cough came on, with expectorations of a pneumonic character, followed by symptoms of spasm of the glottis, and later by dyspnœa, and evidences of a mechanical closure of the wind-pipe. He died exhausted in July. A post-mortem examination showed an aneurismal sac on the left side, reaching from the third rib to the cricothyroid membrane—the circumference being thirteen inches—in front was the sternum and ribs much eroded and absorbed, and behind absorption of the three upper rings of the trachea had taken place from pressure. There was also a projection of mucous membrane narrowing the calibre of the tube, and forming the boundary between the trachea and the aneurismal sac. The aneurism commenced two inches above the origin of the aortic arch, with which it formed a slit-like communication, extending as far as the origin of the subclavian artery. The sac was filled with hard and decolorised coagula in front; posteriorly, they were semi-fluid. There was œdema about the glottis, and the vagus and laryngeal nerves were involved in the tumour.

METROPOLITAN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

SUGGESTIONS DRAWN UP BY DR. BARNES, WITH THE VIEW OF DIMINISHING THE DANGERS RESULTING FROM THE UNDUE RETENTION OF THE BODIES OF THE DEAD IN INHABITED HOUSES.

Submitted to the General Purposes Committee of the Association of Medical Officers of Health, December, 1864.

THERE appear to be five principal quarters to which appeal for aid in carrying out measures for diminishing the evil may usefully be addressed:—

A. The Medical Profession generally (through the Medical press).

B. The Vestries, District Boards, and Boards of Guardians (these to appeal to the public).

C. The Registrar-General.

D. The Cemetery Companies and Undertakers.

E. The Hospital authorities.

FOR THE VESTRIES.

B.—1. That a circular be prepared for submission to the vestries and district boards, setting forth the dangers arising from the existing practices relating to the dead previous to burial, and containing the following recommendations with a view to the diminution of such dangers.

The circular to be sent, in the first instance, to the Medical officer of health of each board, requesting him to submit it to his board.

2. That the extreme importance of providing some suitable place for the temporary deposit of dead bodies previous to interment be urged upon the vestries and district boards.

That the vestries and district boards be requested to use their influence with their boards of guardians to allow the use of the parochial dead-houses for this purpose.

3. That as a sanitary measure, the vestries and district boards issue a public notice to be permanently maintained, as by painting on boards, and by printed placards, directing attention to the public danger resulting from the undue retention of the dead amongst the living, and stating that in cases of urgency the bodies of the dead may be deposited in the parochial dead-house under the security of a responsible officer, until arrangements are completed for the burial.(a)

4. That undertakers be informed that dead bodies can be received in the parochial mortuary, and be encouraged to deposit them in this place, rather than to keep them on their own premises.

5. That the undertakers and the master of the poor-house be instructed in every case of a person dying in the poor-house of scarlatina, fever, or other infectious disease, especially to surround the corpse with charcoal.

6. That the undertakers employed by the boards of guardians be instructed when sent to bury a body from the dwellings of the poor, to surround it with charcoal.

7. That the vestries and district boards be invited to consider the propriety of applying to the Legislature for the enactment, in an amended Diseases Prevention and Nuisances Removal Bill, or otherwise, of clauses empowering them, as sanitary bodies, to provide mortuaries, and their Medical officers to order the removal of corpses to such mortuaries; similar clauses being contained in the City Sewers Act.

C.—1. That the Registrar-General be requested to append a note to the forms of certificates of the cause of death supplied to Medical men recommending the use of charcoal in the manner described.

(a) The construction of regulations for the reception and care of the dead in the parochial (avoid the word "workhouse") dead house or "mortuary" will require some consideration.

2. That the public be earnestly invited by placard (?) or by a notice, to be given in every case by the Registrar, when applied to by the friends of the deceased for a certificate of the cause of death, to see that the body is surrounded by charcoal as soon as placed in the shell or coffin.

D.—1. That a circular be sent to the cemetery companies, requesting them to establish depositories for the dead in convenient places for the reception of bodies waiting interment in their respective cemeteries.

2. That the funeral companies and leading undertakers be invited to establish convenient depositories, such as would, for decency and care, command the confidence of the public.

MEASURES FOR THE HOSPITALS.

E.—1. That a circular be issued (either by the Association or from the vestries) to each of the Metropolitan Hospitals, inviting the authorities to take measures that every dead body, before being allowed to leave their dead-houses, shall be duly surrounded with charcoal.(b)

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a general meeting of the Fellows, held on Thursday, December 22, 1864, the following gentlemen, having undergone the necessary Examination, were duly admitted Members of the College:—

George James Symes Saunders, M.B. Lond., Devon County Lunatic Asylum, Exminster; William Selby Church, M.B. Oxon, Christ Church, Oxford.

The following gentleman, previously an Extra-Licentiate of the College, was also admitted a Member:—

Peter Pincoffs, M.D., Leyden, Naples.

At the same meeting, the following gentlemen, having undergone the necessary Examination, and satisfied the College of their proficiency in the Science and Practice of Medicine, Surgery, and Midwifery, were duly admitted to practise Physic as Licentiates of the College:—

Alexander Bottle, M.D. Edin., Dover; James Collyer, Oak House, Enfield; Frederick Thomas Fagge, Hythe, Kent; Walter Frost, Brentford; John Edward Gowland, M.D. Columbia, Mount-pleasant, Gray's-inn-road; Hawkesley Roche Hayes, Basingstoke; Thomas Magor, Grantham; Milner Montgomery Moore, St. Mary's Hospital; Charles James Meller, Eden-bridge, Kent; Joseph Tarn Pattisson, Wharf-rise, Kingsland-road: William Spooner, Eling, Southampton; Robert Sidney Stone, Bath; Samuel Woodman, Ramsgate.

The following gentlemen were reported by the Examiners to have passed the Primary Professional Examination:—

Thomas S. Dowse, Charing-cross Hospital; Joseph Goodall, St. Bartholomew's Hospital; John Henry Simpson, St. Bartholomew's Hospital; Nathaniel T J. Haydon, St. Mary's Hospital; Napoleon B. Major, St. Mary's Hospital; James Jones, King's College; William Joseph Marsh, Guy's Hospital; George J. B. Stevens, Guy's Hospital; Henry S. Taylor, Guy's Hospital; John Raby, St. Thomas's Hospital; Joseph Thompson, University College Hospital.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, December 22, 1864:—

Charles Antonini, King's College Hospital; Alfred Ensor, King's College Hospital; Herman Boerhaave Holman, London Hospital; Jas. Shackleton, Manchester.

The following gentlemen, also on the same day, passed their First Examination:—

Hardwick Hubert Braye, Guy's Hospital; George Rolph Raine, Guy's Hospital; James David Rowlands, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

FENWICK, GEORGE E., M.B., has been appointed Physician to the Montreal General Hospital.

FREELAND, FREDERICK J., M.R.C.S. Eng., has been appointed Surgeon to the Chichester General Infirmary.

GOODALL, WILLIAM P., M.R.C.S. Eng., has been elected Hon. Surgeon to the Birmingham and Midland Free Hospital for Sick Children.

LOUGHNAN, EDMUND B., L.K.Q.C.P.I., has been appointed Assistant Dispensary Medical Officer to the General Hospital and Dispensary for Children, Manchester.

PRENDERGAST, JOHN, M.D. Edin., has been appointed a Justice of the Peace for the town of Galway.

SIMPSON, JOHN H., M.R.C.S. Eng., has been appointed Assistant Medical Officer at the Gloucester County Lunatic Asylum, Wotton, near Gloucester.

SKEGG, JOHN J., L.R.C.P. Edin., has been appointed Medical Officer for the Workhouse of St. Martin's-in-the-Fields.

STONE, ROBERT S., L.R.C.P., has been appointed Resident Surgeon to the Civil Hospital at Mauritius.

DEATHS.

HAMILTON, CHARLES, Surgeon, at the Mount, Malvern Wells, on December 9, aged 74.

HARRIS, SAMUEL, F.R.C.S., at 7, Albion-place, Reading, on December 24, aged 71, late of Forbury.

HARRISON, THOMAS S., M.D. Edin., J.P., at 3, Portland-place, Bath, on December 22, aged 64.

HORAN, THOMAS, M.R.C.S. Eng., at Cootehill, Co. Cavan, on December 18.

IRVINE, JAMES PEARSON, M.C. Univ. Glasg., L.R.C P. Edin., at Galgate, Lancaster, on December 12, aged 52 years.

NEILL, HUGH, L.R.C,P. Edin., at 2, Bedford-street South, Liverpool, on December 21, aged 58.

O'LOUGHLIN, JAMES, M.D., F.R.C.S.I., on December 19, at Bayswater, aged 60.

POTTS, THOMAS B. W., M.D. Edin., at Matlock Bank, Matlock-bridge, Derbyshire, on December 23, aged 41.

WILSON, Dr. ALEXANDER, Surgeon R.N., at Edinburgh, on December 12.

GRATIFYING TESTIMONIAL.—The Council of the Royal College of Surgeons has just presented to Mr. Frank Buckland a complete set of the Illustrated Catalogue of the Hunterian Museum, in elegant binding, and bearing the following inscription—viz.:—"Resolved—That Mr. Frank Buckland be presented, in the name of this Council, with a bound copy of the Catalogue of the Museum, in acknowledgment of the efficient services rendered by him in searching for, and identifying in the vaults of the church of St. Martin's-in-the-Fields, the coffin containing the remains of John Hunter."—Signed, JOSEPH HODGSON, President Royal College of Surgeons of England.

SEASONABLE CHARITY.—The friends of the under-mentioned Medical charities will be glad to see what munificent sums have lately been added to their respective institutions. The Marquis of Westminster has given the handsome sums of £1000 to the Home for Incurables, and £500 to the Hospital for Diseases of the Chest, Victoria-park. Mr. William Crawshay, of Caversham-park, Reading, has just sent a donation of 100 guineas to the Royal Free Hospital, and Mr. E. Crane, of Broome House, Kidderminster, has also sent £25 to the same Hospital. The late Mr. Hudson Gurney, who died worth upwards of a million, has, in addition to large sums to other charitable institutions, bequeathed £100 to the Norfolk and Norwich Hospital. The attention of treasurers of Medical charities should be directed to an advertisement which appeared in the *Times* of Tuesday last, offering large sums of money to certain charitable institutions therein specified under the will of a late officer in the Royal Navy, on makng the proper claim to the executors.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS IN IRELAND.—The first meeting of the above Society under its new title and new rules took place on Wednesday evening, the 21st inst., in the splendid hall recently erected in Kildare-street, Dublin, by the King and Queen's College of Physicians in Ireland. The chair was taken at half-past eight o'clock by Dr. Beatty, President of the College, who delivered the opening address, in the course of which he gave a brief sketch of the history of the Society under its former designation of the "Association of the Fellows and Licentiates" of the College, contrasting the favourable circumstances attending the present meeting witn those of the Association at its foundation in 1816, when for many years it met in a back room in a bookseller's house in College-green. Nevertheless, six goodly volumes of *Transactions*, published betwen the years 1817 and 1830, attest the value and importance of the communications made to the old Association. The appearance of the *Dublin Journal of Medical Science* in 1832 rendered the separate publication of the *Transactions* of the Association unnecessary. Dr. Beatty next alluded to the circumstances attending the erection of the splendid College in which the Society is now permitted to meet, and showed that it was owing to the foresight, liberality, and zeal of the late President, Dr. Corrigan, that the same had been brought to a successful issue. As a small mark of gratitude and respect, the College has ordered that a portrait of Dr. Corrigan, by the eminent artist, Mr. Catterson Smith, P.R.H.A., shall adorn its Hall, and a movement is at present on foot among the Profession at large to

(b) In support of this request, attention should be drawn to the frequent propagation of disease by the neglect of disinfection; to the fact that bodies are sometimes removed from Hospitals to the houses of friends or to the premises of undertakers before interment, and that the observance of this precaution would act as a great encouragement to the general adoption of similar means amongst the public.

place in the same a statue in marble by Mr. Foley, R.A., of the late President, as a companion to that of the late Sir Henry Marsh, Bart., which was erected by public contributions. On the conclusion of the President's address, the Rev. Professor Haughton read an important and highly practical paper "On the Use of the Specific Gravity of Urine as a Means of Ascertaining its Constituents."

A MEDICAL CANDIDATE FOR THE CORONERSHIP OF LEOMINSTER.—We have received a copy of the following address :—"To the Electors of the Leominster District of the County of Hereford.—Gentlemen,—A vacancy has occurred in the office of Coroner. Most of the cases which give anxiety to jurymen involve a knowledge of anatomy, physiology, the operation and tests of morbid poisons, the laws of life in its earlier stages of development, with a vast variety of other subjects which an advertisement cannot include. When this vacancy is officially announced, I trust you will give me a hearing at a public meeting at Leominster, in order that I may be able to explain my views and intentions more in detail. Your candidate (Mr. Moore) very properly says that, in addition to the requirements of the Act of Parliament as to residence within the district, a central locality should have a preference. I agree with him; and should you do me the honour of electing me, my *habitat* is always subservient to my duty.—I am, gentlemen, your obedient servant, George Kemp, M.D. Cantab., Fellow of Cambridge Philosophical Society. Hereford, December 22, 1864."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Beta.—2. Ruginal's, Belle Sauvage-yard, Ludgate-hill.

A Competitor.—It is stated that an unusual number of essays have been sent in for the Jacksonian prizes alluded to. The award will be made about April next.

The Condemned Man Butler.—The Worcester people are exerting themselves for a revision of the trial and sentence; and we hope they will succeed.

Medical Politics.—An attempt will be made by the Medical Council still further to differentiate the qualified from the unqualified Practitioner. Any idea of *putting down* unqualified practice *in toto* is out of the question; it may be discouraged, but cannot be extirpated. We shall return to this subject next week. Meanwhile, the more sagacious of our readers know that the interests of the Profession are subserved by a dignified attitude and by the skilful and humane conduct of its own members; not by any onslaught on the outsiders.

F.R.C.S., Sheffield.—The College lectures alluded to by our esteemed correspondent were founded by Arris and Gale. A portrait of Alderman Arris in his official gown, demonstrating the muscles of the human arm, with Sir Charles Scarborough presiding, and painted on panel, is in the possession of the Barbers' Company. The authorities of the College of Surgeons endeavoured to become possessors of this interesting picture some years since, but the negotiation failed.

The Birkenhead Case.—We are glad to see that the Profession is thoroughly in earnest in this case. We have received more than twenty newspapers and communications about it, and all in one tone. We do not think it necessary to hold the bone-setter up to opprobrium—rather the contrary, for he only acted according to his instincts, and confessed that he was an uneducated man. Here is part of his examination :—

"Which is the ulna and which is the radius? Ask me a plain question and I'll answer you.—Well, you don't know? I never learned any Latin. Ask me which is the large bone and which is the small bone, and I'll answer you. Did not know whether in a healthy arm it was the large bone or the small one which moved over the other.—Re-examined: Had never learned Latin, and had never been brought up as the Doctors were, but it was impossible to tell how many thousand bones he had set."

We would also speak with all tenderness of Mr. Thomas, jun., whose position probably is neither of his own making nor choosing, and whose Professional education may have been carried on under disadvantages, as shown by this portion of his evidence :—

"Was an assistant with his father. Was Professionally brought up with a Surgeon in Liverpool—in Cross-hall-street—with Dr. Roose. Was with him about three years; was 16 years of age when he went to him. After which he went to the University School of Medicine, where he remained about three months, and then he returned to Dr. Roose, with whom he had been about five years altogether. Got his diploma in London from the Royal College of Surgeons. Witness's father sometimes sent patients to Dr. Roose."

The Royal College of Surgeons, it is to be hoped, will explain under what regulations Mr. Thomas was admitted to examination. But to see a F.R.C.S. and Hospital Surgeon in such company! The article entitled "Lessons from a late Lawsuit," *Medical Times and Gazette*, April 26, 1862, contains all the law of expert witnesses, and might be usefully reprinted by every Medico-Ethical Association in the kingdom. We refer with pleasure to the letter of a correspondent, "G.," which we print, in order that there may be no mistake as to what is passing in the Professional mind.

*** The following *jeu d'esprit* on the management of a provincial Infirmary has been sent us by a correspondent :—

(*From the ——— Examiner and ——— Advertiser, Saturday, December* 22, 1864.)

TO HEDITER OF EGSAMINER.

drover's lonnen, dec. 19, 1864.

plese sir,—Libby jefferson ad a axydent at the Mangel & broke er leg, so thay got a paper and sent er to the infirmery, & bekos i was Away mi brother Aron went to be spokesman, wich kan nowther reed nor Rite, but is a oful gud Getter of & never forgets nothing. so U may put wat follos in the Paper, which it is as tru as tru.

wen thay got to the gate thay so boys karrying baskits of kurn loavs & barls of ale & porter & Sperits & lodes of meet, wich Libby thote she was goin to a gud Shop, & thare was kart lodes ov pig Saim or dripping, wich thay sells Dripping at the infirmary. the dore keeper made them stop in the waiting room, bekos the board was sitting.

Aron ses—"a *board* sitting! well i'm blowed if that dussent beet the Sirkus pownies—ist a deal Board or a Moggany plank?"

Door Keeper—"its nowther; its a bord ov gentelmen, with the Bishup at the top."

Aron—"well, i reely niver heerd of a bord being made ov human beins before."

Door Keeper—"wisht; that's them."

so then thay listened and heerd Voyses rangling, wich the Bishop was Kok ov the walk. Sumbody axed a Kwestin about the sirkus money wich was purified in the mare's At, & then thay toked abowt mister Upperwood, wich sold Gin & them other spirits, & left £200 to the infirmary in Is will. Sumbody axed if the gin seller's Leggasy ad been put throo anybody's At, & the bishup sayed, "i've made that ole rite—say no more—mums the word," wich made sum ov them Koff.

SUMBODY then axed—"ow many pashents is on the books?"

BOOK MAN—"above 800."

SUMBODY—"that's a big un—av U reely 50?"

BOOK MAN—"ye-es, we have mo-ore than 50."

SUMBODY—"Av U a 100?"

BOOK MAN—"About that."

SUMBODY—"Wat do U put 850 in the papers for, then—eh?"

BISHUP—"We av to be ole things to ole Men, & like the a Postel, be krafty and katch them with gile, or else we wuddent get subscripshuns, but we will put it rite in the papers this very week," wich u Kan see for yourself as follers :—

Dec. 8.—On the books last week	829	
Admitted this week	21	
		—850
Discharged this week	10	
Left on the books	113	

which is kweer kownting & wud av broke Paddy Dorn's art. then the bishop axed the Chapling to pik owt a short and sutable prare that they mite Mend thare waysis or leastways get no worse than thay was, & so the Board broke up & went off home. then the surjon Kame and lookd at her Paper.

SURJON—this issent plenty. U must get the lady or else the parish officer, wich is mister rowlands or somebody else, to berry U if U die.

ARON—nobody never dies ov broken Legs?

SURJON—don't thay tho! thats ole U Know. we rote a Book on the subject, & more nor that, the Rules ov the insty Tooshen issent to be broke, or els we wud be drove krazy with Ard jobs.

so then they ad to kum away and the man at the dore sayed it was a Ard case wen charytable peeple subscribed for peeple wich was 2 poor to fetch a doktor, and Aron sayed he wud tell me, & the man sayed it mite praps do sum gud, for if the board nowther feered Moses or the Profits, wativer wud bekum of them? mi opinion is the board is Verry proud and likes a eesy life, and wants peepel to think thay are doing 10 times as much as they reely are & to give them lots ov money—they dont care who gives it or ware it kums from; & puttin it in the mare's At is a Kunjoring trik to gammon peepel, speshally Ladies. thay never lets wit that nobody dies—he's onlis "releeved" wich is a *grave* joke over a Ded korps. so pleese sir tell the Gud peeple 2 give their mony 2 the Dispensery, wich mended Libby's leg and speeks the truth.

so no more at present,
but remanes,

———.

MEDICAL ASSISTANTS AND THEIR EMPLOYERS.

Mr. Drake presents his compliments to the Editor of the *Medical Times and Gazette*, and requests an answer to the following question :—

A. B., a registered Surgeon, lives as in-door assistant with C. and D., a wealthy firm in very large practice. He is called on three separate occasions to see persons who have died suddenly, and in each case makes a post-mortem examination by the Coroner's order, subsequently giving evidence before him. The fees, amounting to six guineas, are claimed by C. and D., but A. B. is of opinion that he is entitled to the fees, as he believes that House-Surgeons and others always retain the fees in similar cases. Perhaps the Editor will have the goodness to set him right in the matter?

*** If the master gave up the fees it would be purely a matter of good nature. It would not be customary.

UNIVERSITY OF ERLANGEN.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As many English Medical gentlemen recently have applied to our Faculty requesting to be admitted to the Examination for the Degree of M.D., I beg to state, in order to prevent disappointment, that no person can be examined whose name is not inscribed in the Medical Register of Great Britain and Ireland. I am, &c.

Dr. J. M. LEUPOLDT, Ex-Dean of the Medical Faculty.

Erlangen, December 21.

CONSANGUINEOUS MARRIAGES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—If your correspondent "X" will look in the *Medical Times and Gazette* of December 5, 1863, he will find the circular that has been issued to the French prefects on the subject of consanguineous marriages; and in the number for August 29, 1863, he will also find some remarks on the same subject. I am, &c. A. R.

Crockford's Patent Spirit Indicator for Wines.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In reply to a question put by your correspondent "Beta" which you have forwarded to me, I beg to say that "Crockford's patent spirit indicator for wines" is manufactured by Farrow and Jackson, 18, Great Tower-street, London. It is constructed on the principle that the boiling-point of any liquid depends (inversely) on the quantity of alcohol contained in it. It consists of a small boiler, with a worm and condenser, which, by means of a stream of cold water, returns to the liquid every portion of alcohol that is boiled off. There is a little gravimeter for taking the specific gravity of the wine. The wine is then boiled, and the temperature at which it does so is told by a thermometer which fits with an air-tight plug into the boiler. There is a table for showing the percentage of proof spirit, and likewise for correction, rendered necessary by variations in the original sp: gr. of the wine. Before commencing operations the boiling-point of distilled water is taken, and the instrument *set*, so as to correspond to the height of the barometer. The whole thing is in a box, and is very portable and easily used, and, I believe, costs two guineas. Bence Jones, in his translation of Mulder, speaks with approbation of another alcoholometer, in which the tension of the vapour, as measured by a column of mercury, is taken as the measure, instead of the temperature; and he used this in his estimations of the alcoholic strength of wine.

In future articles I shall take the opportunity of answering questions and acknowledging samples sent me by your numerous correspondents; and, meanwhile, thanking them for their interest in the matter, and hoping they will promote the use of *pure wine*, I am, &c.

Your Empirical Commissioner.

Management of the Third Stage of Labour.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—We shall scarcely need any discussion on the priority of claim in bringing before the Profession the importance of uterine pressure and early extraction of the placenta, which I can assure "Celer et Audax" is common practice; I can recall nearly twenty years, and never knew any other; it originates, I have no doubt, in a desire to save time, but is exceedingly good practice nevertheless.

I must differ slightly with "Celer et Audax" on two points—never entrusting the duty to a nurse, and using the right hand in preference to the left, passing it between the thighs, supposing the woman to lie in the usual obstetric position—viz., left side, knees drawn up; this I believe to be by far the most effectual way of controlling the uterus and preventing post partum hæmorrhage, as with a strong hand you can almost command contraction. The importance of this practice can scarcely be overrated. I shall never forget the fright I had, having left a case to attend to an urgent message, finding, on my return, the child born, and atonic hæmorrhage to such an alarming extent that I dared not leave the bedside for hours. This certainly would not have happened had I been present, and the patient's condition was rightly enough attributed to my neglect. This grasping pressure should immediately follow the birth, and not interfere in any way with the natural uterine action during expulsion, otherwise, I fear, lacerations will be more common. The hand should fit almost like a cap over the fundus uteri, mere pressure such as a nurse would use being much less effectual. I can endorse this practice with nearly 3000 labours.

There is another device for saving time that can scarcely be recognised in a text-book, unless the author wished to inaugurate a new system of meddlesome midwifery—viz., pushing the uterus over the head. This, with various mechanical contrivances, such as whalebone loops, etc., may be safe enough in experienced hands, but could not be recommended by authority.

From Denman, who ignored the existence of the placenta, until he had an unfortunate death, to Mr. Figg, whose motto is "Turn and deliver," we have a long step, but turning in natural cases I should hope to be the *ne plus ultra*, for surely the "force of folly could no further go."

I am, &c., Major Greenwood, M.D. St. And., etc.

26, Queen's-road, Dalston, December 24.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I am rather struck by a letter in this day's *Medical Times and Gazette* signed "Celer et Audax," and, although I quite agree with this gentleman in his remarks on the management of the third stage of labour, and am quite willing to give so earnest a Practitioner as he evidently appears to be his full meed of praise, and to award to him any claim of priority to which he may consider himself entitled, he will, I am sure, in his turn "forgive me" for saying that the management of the placenta, as he describes it, is a very old practice, and one which I have always adopted since I was at the Rotunda Hospital, Dublin, in the year 1843.

I do not profess to have had a very extensive midwifery practice, but during the last twenty-two years I have had a moderate share, and I never recollect to have had any trouble with a placenta.

I think it a very bad plan, and I cannot too strongly deprecate its practice, to sit down and wait patiently for the advent of a pain to expel the placenta; and, in my opinion, the hand should never leave the fundus of the uterus until the expulsion does take place.

Now, as we Dublin men have been taught, nothing can be more simple than the adoption of this plan, although the simplicity is much lessened, I think, by the English method of teaching. I mean by this, that in England generally the perineum is supported by the left hand, and I cannot conceive it possible to attend to the uterus, the perineum, and the child all at the same time if the left hand be employed as I have stated.

In attending a woman, I, of course, sit down behind her, and examine her with my right forefinger. Towards the end I stand up, place my left knee on the bed, at the back of and supporting the woman, my left hand resting on the hip, and thus possessing great power over the (occasionally) struggling patient, leaving my right hand free to support the perineum, and, if necessary, as is so often the case, with my right forefinger to release the cord from the neck of the child *en passant*. As soon as the head emerges, I place my left hand on the fundus, and follow the child, as it were, out of the womb until it is quite born. Of course, I now for a moment leave the fundus to tie the cord. This done, I replace my hand, and continue steady pressure until the placenta is expelled.

As to the propriety of adopting this plan, there cannot, I think, be a doubt, and it is more particularly valuable in cases where the cord is coiled once or twice round the neck, or where (as occasionally happens) it is entwined round the body like "an alderman in chains," and where, almost of necessity, there is partial detachment of the placenta. In such a case as this, under the old *régime* the child would be born, the placental detachment would not be suspected, not a drop of blood would be seen, and yet all the time that most fearful of all fearful things in this world—internal hæmorrhage—would be going on, and before you could look round the patient would be gone for ever. On the other hand, if, after such a case as I have mentioned, the hand were gently pressing the fundus, a gush would take place, telling you of the detachment within; the pressure would be continued, the placenta expelled with a gloriously hard, cricket-ball contraction, running away from your hand, and the woman would be saved.

I am quite sure that in very many instances the retained placentæ that we hear of, the frightful floodings that are recorded, are attributable either to improper interference in removing the former or the non-adoption of the plan now under discussion.

I have very much pleasure, then, as an old Accoucheur, and one who has the most intense horror of uterine hæmorrhage, in endorsing the opinion of "Celer et Audax" and in assuring him that for the last twenty-two years I have adopted his plan most successfully, and that during that time I have never had a case of either retained or adherent placenta.

I am, &c.

Havant, December 24. Wm. Stedman.

COMMUNICATIONS have been received from—

The Secretary Civil Service Commission; Apothecaries' Hall; Dr. F. M. Leupoldt; The Secretary St. Peter's Hospital; The Secretary Nightingale Fund; Dr. M. Greenwood; Mr. W. Stedman; Dr. E. Hamilton; Royal College of Physicians; Obstetrical Society; A. R.; Mr. W. Parker; Dr. S. Day Goss; Beta.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 24, 1864.

BIRTHS.

Births of Boys, 947; Girls, 900; Total, 1847.

Average of 10 corresponding weeks, 1854-63, 1689·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	756	767	1523
Average of the ten years 1854-63	636·6	627·0	1263·6
Average corrected to increased population..	..	..	1390
Deaths of people above 90	..	..	5

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	4	13	11	1	3	19	2
North ..	618,210	2	13	18	5	8	21	3
Central ..	378,058	..	7	3	3	7	6	1
East ..	571,158	2	12	9	1	17	21	1
South ..	773,175	1	12	18	6	13	15	2
Total ..	2,803,989	9	57	60	16	48	84	9

APPOINTMENTS FOR THE WEEK.

December 31. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

Royal Institution, 3 p.m. Prof. Frankland, "On the Chemistry of a Coal"—(Juvenile Lectures).

January 2. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

3. *Tuesday*.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Anthropological Society of London, 4 p.m. Anniversary Meeting.

Pathological Society, 8 p.m. General Meeting for Election of Officers

4. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

Obstetrical Society of London. Annual Meeting. President's Address. Election of Officers. Dr. Playfair, "Case of Extra-uterine Fœtation;" and other Papers.

5. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

Harveian Society of London, 8 p.m. Anniversary. President's Address and Election of Officers.

6. *Friday*.

Operations, Westminster Ophthalmic, 1½ p.m.

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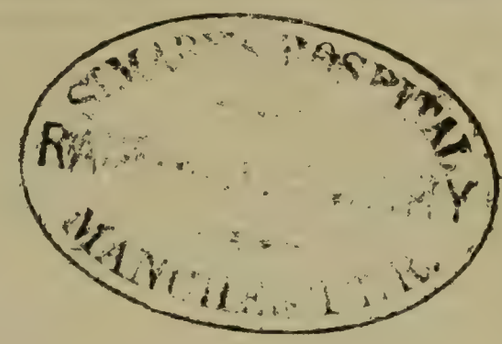

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LIST OF ERRATA.

Page 93, column 1, line 13 from bottom, *for* "Platryhini," *read* "Platyrhini."
Page 160, column 1, line 50, *for* "it organised," *read* "if organised."
Page 175, column 1, line 31, *for* "*ανηρ*," *read* "*ανηρ*;" *for* "*ανδρων*," *read* "*ανδρων*."
Page 343, column 2, line 18, *for* "Surgical Anatomy," *read* "Surgical Diagnosis."
Page 368, column 2, line 31, *for* "sphymograph," *read* "sphygmograph."
Page 453, column 1, line 35, addendum by Professor Bennett.
Page 493, column 2, line 18, *for* "Barnard," *read* "Davis."
Page 491, line 29, *for* "William Rogers," *read* "M. C. Rogers."

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